

## **Appendix B: Project Consultation**



## **Appendix B1: Contact List**



	First Name	Last Name	Title	Division	Address 1	Address 2	City	Province	Postal Code	Telephone Number	Email Address
<b>FEDERAL AGENCIES</b>											
Canadian Environmental Assessment Agency	Anjala	Puvananathan	Director	Ontario Regional Office	55 St. Clair Avenue	Room 907	Toronto	ON	M4T 1M2	416-952-1575	anjala.puvananathan@ceaa-acee.gc.ca
Environment Canada	Rob	Dobos	Manager	Environmental Assessment Section, Environmental Protection Operations Division - Ontario Region	867 Lakeshore Road	P.O. Box 5050	Burlington	ON	L7R 4A6	905-336-4953	rob.dobos@ec.gc.ca
Environment Canada	Sheila	Allan	Senior EA Officer	Environmental Assessment Section, Environmental Protection Operations Division - Ontario Region	867 Lakeshore Road	P.O. Box 5050	Burlington	ON	L7R 4A6	905-336-4948	sheila.allan@ec.gc.ca
Transport Canada	Monique	Mousseau	Regional Manager	Environmental Affairs, Programs Branch, Ontario Region	4900 Yonge Street	Suite 300	Toronto	ON	M2N 6A5	416-952-0485	mousseau@tc.gc.ca
Transport Canada	Michael	Lucking	Civil Aviation Safety Inspector	Aerodromes and Air Navigation	4900 Yonge Street	4th floor	Toronto	ON	M2N 6A5	416-952-1586	michael.lucking@tc.gc.ca
Transport Canada			Environmental Assessment Coordinator	Ontario Region	4900 Yonge Street	4th floor	Toronto	ON	M2N 6A5		enviroont@tc.gc.ca
Transport Canada	Keith	Reilly	Civil Aviation Safety Inspector	Aerodromes and Air Navigation	4900 Yonge Street	4th floor	Toronto	ON	M2N 6A5	416-952-7254	keith.reilly@tc.gc.ca
Transport Canada	Margaret	Menczel			4900 Yonge Street	4th floor	Toronto	ON	M2N 6A5	416-952-0243	margaret.menczel@tc.gc.ca
Greater Toronto Airports Authority	Mark	Nowicki	Manager, Aerodrome Planning	Strategic Planning & Airport Development Dept	P.O. Box 6031	3111 Convair Drive	Toronto AMF	ON	L5P 1B2	416-776-5022	mark.nowicki@gtaa.com
Greater Toronto Airports Authority	Jane	Lin	Sr. Manager, Cogeneration & Utilities	Facilities Dept	P.O. Box 6031	3111 Convair Drive	Toronto AMF	ON	L5P 1B2	416-776-6117	jane.lin@gtaa.com
Nav Canada	Diane	Levesque	Land Use	AIS Data Collection						1-866-577-0247	landuse@navcanada.ca
<b>PROVINCIAL AGENCIES</b>											
Go Transit (Division of Metrolinx)	Dan	Francey	Manager	Environmental Liason Section	20 Bay Street	Suite 600	Toronto	ON	M5J 2W3	416-869-3600 x 5478	daniel.francey@gotransit.com
Go Transit (Division of Metrolinx)	Andreas	Grammenz	EA Project Leader								andreas.grammenz@gotransit.com
Ontario Power Authority	Kristin	Jenkins	Vice President	Communications	120 Adelaide Street West	Suite 1600	Toronto	ON	M5H 1T1		
Ontario Power Authority	Patricia	Phillips	Director, Public Affairs	Corporate Communications	120 Adelaide Street West	Suite 1600	Toronto	ON	M5H 1T1	416-969-6326	patricia.phillips@powerauthority.on.ca
Ontario Power Authority	Joe	Toneguzzo	Director, Transmission Integration	Power System Planning	120 Adelaide Street West	Suite 1600	Toronto	ON	M5H 1T1	416-969-6272	joe.toneguzzo@powerauthority.on.ca
Ontario Power Authority	Luisa	Da Rocha	Manager, Stakeholder Relations	Communications	120 Adelaide Street West	Suite 1600	Toronto	ON	M5H 1T1	416-969-6316	luisa.darocha@powerauthority.on.ca
Ontario Power Generation	Lindsay	Adams	Environmental Advisor	Ontario Power Generation	700 University Avenue		Toronto	ON	M5G 1X6	416-592-4173	lindsay.adams@opg.com
Ontario Power Generation	Kevin	Powers	Director	Public Affairs	700 University Avenue		Toronto	ON	M5G 1X6	416-592-8470	
Ministry of Aboriginal Affairs	Wendy	Cornet	Manager	Consultation Unit, Aboriginal Relations and Ministry Partnerships Division	160 Bloor Street East	9th Floor	Toronto	ON	M7A 2E6	416-325-4044	wendy.cornet@ontario.ca
Ministry of Aboriginal Affairs	Ashley	Johnson	Advisor	Strategic Policy and Planning Division	160 Bloor Street East	9th Floor	Toronto	ON	M7A 2E6	416-326-6313	ashley.johnson@ontario.ca
Ministry of Agriculture, Food and Rural Affairs	Ray	Valaitis	Rural Planner	Environmental and Land Use Policy Unit	95 Dundas St, East		Brighton	ON	KOK 1H0	613-475-4764	ray.valaitis@ontario.ca
Ministries of Citizenship and Immigration, Tourism and Culture, and Health Promotion	Tom	Chrzan	Manager								
Ontario Provincial Police	Sheryl	Bennett	Manager	Central Region	180 Dundas Street West	Suite 502	Toronto	ON	M7A 2R9	416-314-6682	tom.chrzan@ontario.ca
Ontario Provincial Police	Sheryl	Bennett	Manager	OPP Facilities Section, Accommodation Services Section	777 Memorial Avenue	2nd Floor	Orilla	ON	L3V 7V3	705-329-6815	sheryl.bennett@ontario.ca
Ministry of Energy	Allan	Jenkins	Senior Policy Specialist	Energy Markets, Energy Supply and Competition Branch	880 Bay Street	3rd Floor	Toronto	ON	M7A 2C1	416-325-6926	allan.jenkins@ontario.ca
Ministry of Energy	Hartley	Springman	Senior Policy Advisor	Strategic Policy Branch, Regulatory Affairs & Strategic Policy Division	880 Bay Street	2nd Floor	Toronto	ON	M7A 2C1	416-327-7276	hartley.springman@ontario.ca
Ministry of Infrastructure	Jamie	Austin	Manager	Growth Policy, Ontario Growth Secretariat	777 Bay Street	4th Floor, Suite 425	Toronto	ON	M5G 2E5	416-325-5794	jamie.austin@ontario.ca
Ministry of Infrastructure	Anil	Wijesooriya	General Manager	Planning, Survey and Appraisal, Professional Services	1 Dundas Street West	Suite 2000	Toronto	ON	M5G 2L5	416-212-6183	anil.wijesooriya@ontariorealty.ca
Ministry of Municipal Affairs and Housing	Louis	Bitonti	Senior Planner	Community Planning and Development, Central Municipal Services Office	777 Bay Street	2nd Floor	Toronto	ON	M5G 2E5	416-585-6563	louis.bitonti@ontario.ca
Ministry of Natural Resources	Debbie	Pella Keen	District Manager	Aurora District	50 Bloomington Road		Aurora	ON	L4G 3G8	905-713-7372	debbie.pellakeen@ontario.ca
Ministry of Natural Resources	Jackie	Burkart	District Planner	Aurora District	50 Bloomington Road		Aurora	ON	L4G 3G8	905-713-7368	jackie.burkart@ontario.ca
Ministry of Natural Resources	Melinda	Thompson	Species at Risk Biologist	Aurora District	50 Bloomington Road		Aurora	ON	L4G 3G8	905-713-7425	melinda.thompson@ontario.ca
Ministry of Natural Resources	Danielle	Aulenback	Assistant Species at Risk Biologist	Aurora District	50 Bloomington Road		Aurora	ON	L4G 3G8	905-713-7732	danielle.aulenback@ontario.ca

	First Name	Last Name	Title	Division	Address 1	Address 2	City	Province	Postal Code	Telephone Number	Email Address
Ministry of Natural Resources	Bohdan	Kowalyk	Forester	Aurora District	50 Bloomington Road		Aurora	ON	L4G 3G8	905-713-7714	bohdan.kowalyk@ontario.ca
Ministry of Northern Development and Mines	Joan	van Kralingen	Acting Director	Corporate Policy Secretariat	99 Wellesley Street West	Whitney Block, Room 5630	Toronto	ON	M7A 1C3	416-327-6469	joan.vankralingen@ontario.ca
Ministry of Tourism, Culture and Sport	Laura	Hatcher	Heritage Planner - Culture Services Unit	Central Region	401 Bay St	Suite 1700	Toronto	ON	M7A 0A7	416-314-3108	laura.hatcher2@ontario.ca
Ministry of Tourism, Culture and Sport	Dan	Minkin	Heritage Planner - Culture Services Unit	Central Region	401 Bay St	Suite 1700	Toronto	ON	M7A 0A7		dan.minkin@ontario.ca
Ministry of Transportation	Heather	McClintock	Manager (Acting) - Design and Contract Standards Off	Highway Standards Branch	Garden City Tower, 2nd Floor	301 St Paul St	St Catharines	ON	L2R 7R4	905-704-2199	heather.mcclintock@ontario.ca
Ministry of Transportation	Andrew	Beal	Manager (Acting)	Central Region, Engineering Office	1201 Wilson Avenue	5th Floor, Building D	Downsview	ON	M3M 1J8	413-235-5484	andrew.beal@ontario.ca
Ministry of the Environment	Dorothy	Moszynski	Issues Project Coordinator	Air, Pesticides and Environmental Planning	5775 Yonge St, 9th Fl		Toronto	ON	M2M 4J1	416-326-3469	dorothy.moszynski@ontario.ca
Ministry of the Environment	Agatha	Garcia-Wright	Director, Environmental Approvals	Environmental Approvals Branch	12A, 2 St. Clair Ave W		Toronto	ON	M4V 1L5	416-314-7288	agatha.garciawright@ontario.ca
<b>MUNICIPAL AGENCIES</b>											
Central Lake Ontario Conservation Authority	Warren	Coulter	Environmental Engineering Analyst		100 Whiting Avenue		Oshawa	ON	L1H 3T3	905-579-0411 x133	wcoulter@cloca.com
Central Lake Ontario Conservation Authority	Stefani	Gauley	Planner/ Enforcement Officer		100 Whiting Avenue		Oshawa	ON	L1H 3T3	905-579-0411 x145	sgauley@cloca.com
Central Lake Ontario Conservation Authority	Ian	Kelsey	Aquatic Biologist		100 Whiting Avenue		Oshawa	ON	L1H 3T3	905-579-0411 x143	ikelsey@cloca.com
Central Lake Ontario Conservation Authority	Kathy	Luttrell	Terrestrial Resource Analyst		100 Whiting Avenue		Oshawa	ON	L1H 3T3	905-579-0411 x124	kluttrell@cloca.com
Regional Municipality of Durham	Henry	Tang	Project Planner	Planning and Economic Development Department	605 Rossland Road East		Whitby	ON	L1N 6A3	905-668-4113 x2561	henry.tang@durham.ca
Regional Municipality of Durham	Neil	Henderson	Principal Planner	Plan Implementation	605 Rossland Road East	P.O. Box 623	Whitby	ON	L1N 6A3	905-668-4113 x2559	neil.henderson@durham.ca
Regional Municipality of Durham	Antonio	Dipietro		Health Department	605 Rossland Road East	P.O. Box 730	Whitby	ON	L1N 0B2	905-723-3818 x2280	anthony.dipietro@durham.ca
Regional Municipality of Durham	Dr. Robert	Kyle	Commissioner and Medical Officer of Health	Health Department	605 Rossland Road East	P.O. Box 730	Whitby	ON	L1N 0B2	905-668-4113 x3110	health@durham.ca
Municipality of Clarington	Patti	Barrie	Municipal Clerk		40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	pbarrie@clarington.net
Municipality of Clarington	David	Crome	Director	Planning Services	40 Temperance St	3rd Floor	Bowmanville	ON	L1C 3A6	905-623-3379	dcrome@clarington.net
Municipality of Clarington	Faye	Langmaid	Manager of Special Projects	Planning Services	40 Temperance St		Bowmanville	ON	L1C 3A6	905 623 3379	flangmaid@clarington.net
Municipality of Clarington	Tony	Cannella	Director	Engineering Services	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	tcannella@clarington.net
Municipality of Clarington	Leslie	Benson	Manager	Transportation and Design	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	lbenson@clarington.net
Municipality of Clarington	Carlo	Pellarin	Manager	Development Review	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379 x2408	cpellarin@clarington.net
Municipality of Clarington	Anne	Taylor Scott	Planner II, Development Review Branch	Planning Services Department	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379 x2414	ataylorstott@clarington.net
Municipality of Clarington	Gord	Wier	Fire Chief	Clarington Emergency and Fire Services	2430 Highway 2		Bowmanville	ON	L1C 3K7	905-623-5126	gweir@clarington.net
City of Oshawa	Susan	Ashton	Principal Planner	Planning Services	50 Centre Street South	8th Floor, Rundle Tower, City	Oshawa	ON	L1H 3Z7		sashton@oshawa.ca
City of Oshawa	Gary	Carroll	Director of Engineering Services		50 Centre Street South		Oshawa	ON	L1H 3Z7	905-436-3311 x2260	gcarroll@oshawa.ca
City of Oshawa	Steve	Meringer	Fire Chief								sMeringer@oshawa.ca
<b>INTEREST GROUPS</b>											
Agricultural Institute of Canada	Tom	Beach	Executive Director and International Program Officer		9 Corvus Court	Suite 900	Ottawa	ON	K2E 7Z4	613-232-9459	office@aic.ca
Ducks Unlimited Canada	Ron	Maher	Ontario Manager of Field Operations		614 Norris Court	Unit 1	Kingston	ON	L7P2R9	613 389 0418	r_maher@ducks.ca
Durham Sustain Ability	Terry	Green	Chair and President		126 Water Street	Unit 3	Port Perry	ON	L9L 1B9	905 985 3279	info@sustain-ability.ca
Durham Land Stewardship Council	Laurie	Vetz	Stewardship Coordinator		50 Bloomington Road		Aurora	ON	L4G 0L8	905 713 6048	laurie.uetz@ontario.ca
Durham Region Field Naturalists	Robert	Bryson	President		8 King Street East	Box 54031	Oshawa	ON	L1H 1A9		
Friends of the Farewell	Libby	Racansky			3200 Hancock Road		Courtice	ON	L1E 2M1	905 436 2376	libby.stan@sympatico.ca
Durham Environmental Network	Jack	McGinnis			1709 Highway 7		Brougham	ON	L0H 1A0		
Jack Miner Migratory Bird Foundation	Kirk	Miner			Box 39		Kingsville	ON	N9Y 2E8		info@jackminer.com
Nature Conservancy of Canada	Donna	Stewart	Vice President	Ontario Region	36 Eglinton West	Suite 400	Toronto	ON	M4R 1A1	416 932 3202	nature@natureconservancy.ca
Oak Ridges Moraine Land Trust	Susan	Walmer	Executive Director		The Gate House	13990 Dufferin Street North	King City	ON	L7B 1B3	905 833 3171	susan.walmer@bellnet.ca
Ontario Federation of Agriculture	Neil	Currie	General Manager	Ontario AgriCentre	100 Stone Road West	Suite 206	Guelph	ON	N1G 5L3	519 821 8883	neil.currie@ofa.on.ca
Ontario Federation of Agriculture	Michel	Bourgon	Manager	Eastern & Northern Regions	130 St. Catherine		St. Isidore	ON	K0C 2B0	613 524 2100	michel.bourgon@ofa.on.ca
Ontario Federation of Agriculture c/o The Co-Operators - Whitney Town Centre	Brian	Hancock	Member Service Representative for Durham, Peterborough, and Victoria		370 Kent Street West	P.O. Box 686	Lindsay	ON	K9V 4W9	705 324 2047	brian.hancock@ofa.on.ca
Ontario Greenbelt Alliance	Sarah	Winterton	Program Coordinator	c/o Environmental Defense	615 Yonge Street	Suite 500	Toronto	ON	M4Y 1Z5	416 323 9521	info@greenbelt.ca

	First Name	Last Name	Title	Division	Address 1	Address 2	City	Province	Postal Code	Telephone Number	Email Address
Ontario Nature	Caroline	Schultz	Executive Director		214 King Street	Suite 612	Toronto	ON	M5H 3S6	416 444 8419	carolines@ontarionature.org
Ontario Nature	Dr. Anne	Bell	Director	Conservation and Education	214 King Street	Suite 612	Toronto	ON	M5H 3S6	416 444 8419	anneb@ontarionature.org
Ontario Streams	Doug	Forder	Field Supervisor		50 Bloomington Road West		Aurora	ON	L4G 3G8	905 713 7399	doug.forder@ontariostreams.on.ca
Ontario Streams	Christine	Pritchard	Project Coordinator/Biologist		50 Bloomington Road West		Aurora	ON	L4G 3G8	905 713 7399	christine.pritchard@ontariostreams.on.ca
Oshawa Kicks Soccer Club	Will	Thurber	President				Oshawa	ON		905-429-2420	president@oshawakicks.com
Oshawa PUC Networks Inc.	Denise	Flores	Director	Engineering & Operations	100 Simcoe Street South		Oshawa	ON	L1H 7M7	905 723 4626 x5315	dflores@opuc.on.ca
STORM Coalition (Save the Oak Ridges Moraine)	Debbe	Crandell			Sheppard House	93A Industrial Parkway South	Aurora	ON	L4G 3V5	905-880-3465	debbeday@rogers.com
TransCanada	Chuck	Horne	Regional Manager								chuck_horne_jr@transcanada.com
Wildlife Preservation Trust Canada	Elaine	Williams	Executive Director		RR#5	5420 Highway 6 North	Guelph	ON	N1H 6J2	519 836 9314	admin@wildlifepreservation.ca
Veridion Connections	Craig	Smith	Manager	Planning and Maintenance	55 Taunton Rd. E.		Ajax	ON	L1T 3V3	905 427 9870 x2236	csmith@veridian.on.ca

**Government Officials**

Organization	First Name	Last Name	Title	Address 1	Address 2	City	Province	Postal Code	Telephone Number	Email Address
Member of Provincial Parliament	John	O'Toole	MPP	75 King Street East		Bowmanville	ON	L1C 1N4	905-697-1501	john.otooleco@pc.ola.org
Member of Parliament	Bev	Oda	MP	68 King Street East		Bowmanville	ON	L1C 3X2	905 697 1699	oda.b@parl.gc.ca
Municipality of Clarington	Adrian	Foster	Mayor	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	mayor@clarington.net
Municipality of Clarington	Franklin	Wu	CAO	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	cao@clarington.net
Municipality of Clarington	Mary	Novak	Regional Councillor, Wards One and Two	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	mnovak@clarington.net
Municipality of Clarington	Joel	Neal	Councillor, Ward One	40 Temperance St		Bowmanville	ON	L1C 3A6	905-623-3379	jneal@clarington.net
City of Oshawa	John	Henry	Mayor	50 Centre Street South	2nd Floor, West Wing, City Hall	Oshawa	ON	L1H 3Z7	905 436 5611	jhenry@oshawa.ca
City of Oshawa	Rob	Duignan	City Manager	50 Centre Street South	2nd Floor, Rundle Tower, City Hall	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	John	Ake		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Roger	Bouma		50 Centre Street South	City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Bob	Chapman		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Nancy	Diamond		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Tito-Dante	Marimpietri		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Amy	England		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	John	Neal		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Nester	Pidwerbecki		50 Centre Street South	Regional and City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Doug	Sanders		50 Centre Street South	City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca
City of Oshawa	Bruce Wood	Wood		50 Centre Street South	City Councillor	Oshawa	ON	L1H 3Z7	905-436-3311	service@oshawa.ca



## **Appendix B2: Initial Notification**





**Hydro One Networks Inc.**

483 Bay Street  
TCT-4, South Tower  
Toronto, Ontario, M5G 2P5  
mccormick.bj@hydroone.com

Tel: 416-345-6597  
Fax: 416-345-6919  
Cell: 416-525-1051



**Brian McCormick**, Manager, Environmental Services and Approvals

April 8, 2012

Name and Address

**RE: Clarington Transformer Station Class Environmental Assessment**

Dear Chief/President/Consultation Coordinator:

Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario. The project area for the proposed facilities is shown on the attached map.

The proposed Clarington TS is required to accommodate the eventual closure of Pickering Generating Station (GS), enable future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers. Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and begin the Class EA process immediately to ensure that the station is ready to be in service as early as 2015. The Ontario Power Authority (OPA) also recommends this course of action.

The proposed project is subject to the provincial *Environmental Assessment Act* in accordance with the "Class EA for Minor Transmission Facilities". The Class EA will also examine the potential effects of the proposed facilities and recommend mitigation measures. All mitigation and restoration activities will follow Hydro One's policies and guidelines.

We welcome your comments and feedback on the Clarington TS project. We would be pleased to arrange a meeting to gather your input and discuss project details. Should there be any update to the project information provided above, I will ensure you are promptly informed.

Please complete and return the attached Project Participation Form, indicating the appropriate contact person. If you have any questions regarding this project please feel free to contact me at (416) 345-6597, or Yu San Ong, Environmental Planner at (416) 345-5031 or by email at [YuSan.Ong@hydroone.com](mailto:YuSan.Ong@hydroone.com)

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian McCormick".

Brian McCormick  
Manager, Environmental Services and Approvals

cc. Ian Jacobsen, Senior Manager, First Nations and Métis Relations

Enc

**PROJECT PARTICIPATION FORM**



To: Yu San Ong, Hydro One Networks Inc.

Date: \_\_\_\_\_

Fax: (416) 345-6919

Email: YuSan.Ong@HydroOne.com

**RE: Clarington Transformer Station Class Environmental Assessment**

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Contact Name: \_\_\_\_\_

Position Title: \_\_\_\_\_

First Nation/Métis Community: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Preferred Contact Method \_\_\_\_\_

Please indicate the appropriate response:

\_\_\_ We are interested in providing input regarding this study.

\_\_\_ We are not interested in providing input regarding this study but would like to be kept on Hydro One’s mailing list.

\_\_\_ Please take us off Hydro One’s mailing list for this study.

Areas of interest or concern/preliminary comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please provide the information of additional contact persons. (Attach additional sheets if required.)

Any questions may be directed to Yu San Ong, Environmental Planner at (416) 345-5031

**Hydro One Networks Inc.**

483 Bay Street  
South Tower, 8<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5  
www.HydroOne.com

Tel: 416-345-4255  
Fax: 416-345-6984

**Denise Jamal**

Manager  
Public Affairs



April 10, 2012

Dear Mayor Foster & Council:

**Hydro One Class Environmental Assessment for a new transmission facility - Clarington Transformer Station (TS)**

**Re: New Transformer Station in Municipality of Clarington**

I am writing to provide you with information about a new transformer station to be located in the Municipality of Clarington. The Ontario Power Authority (OPA) has instructed Hydro One to construct a new transmission facility to offset the eventual retirement of the Pickering Nuclear Generating Station (NGS).

Pickering NGS supplies as much as 25 per cent of the local and East GTA's electricity demand. When the generating station is removed from service, its 3,000 MW of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system. Although the exact date of Pickering NGS's closure has not been determined, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015.

To that end, Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment to build a new transformer station in the Municipality of Clarington. This study is being conducted in accordance with the *Class Environmental Assessment (EA) for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*.

Clarington would occupy approximately 30 hectares of property, west of Langmaid Road and north of Concession Road 7. The station would include 4 transformers that would convert energy supplied along the adjacent 500 kV transmission lines to 230 kV, which would then be supplied to local distribution companies for end use customers.

An important part of the Class EA process includes consultation with First Nations & Métis communities, government agencies, members of the local community, and other interested parties to ensure that any potential effects of this undertaking are identified and addressed in project plans. As such, we are intending to host a Public Information Centre (PIC) the first week in May, to provide the community with information about the project and obtain feedback. We are confirming the location and will provide an ad that will run in the local publications once all details are confirmed. We hope you can attend.

Contingent on the successful completion of the Class EA process, construction could begin in 2013 to meet an in-service date of early 2015. Should you wish, our project team would like to take the opportunity to brief you on this important project prior to the PIC. I have been in touch with your office and look forward to hearing back from you.

In the interim, please don't hesitate to contact me at 416-345-4255 or by email at [Denise.Jamal@HydroOne.com](mailto:Denise.Jamal@HydroOne.com) for more information.

Regards,

Denise Jamal  
Manager, Public Affairs

**Hydro One Networks Inc.**

483 Bay Street  
TCT-4, South Tower  
Toronto, Ontario, M5G 2P5  
mccormick.bj@hydroone.com

Tel: 416-345-6597  
Fax: 416-345-6919  
Cell: 416-525-1051



**Brian McCormick**, Manager, Environmental Services and Approvals

May 3, 2012

Name and Address

**RE: Clarington Transformer Station Class Environmental Assessment**

Dear Chief/President/Consultation Coordinator:

As indicated through our previous correspondence dated April 8, 2012, Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario.

Hydro One recognizes the importance of consultation to the planning of the project. A Public Information Centre (PIC) is scheduled for Wednesday May 23, 2012 from 5:00 pm to 8:00 pm at the Solina Town Hall to provide those interested the opportunity to learn more about the project and discuss any issues or concerns with our project team. More details can be found in the attached advertisement, which will run in *Oshawa Clarington This Week* on May 10 and 17, in *Oshawa Express* on May 9 and 16 and in *Orono Weekly Times* on May 16 and 23.

In the interim, we welcome your comments and feedback on the Clarington TS project. We would be pleased to arrange a meeting to gather your input and discuss project details. Information and updates are also available on our project website at [www.HydroOne.com/projects/](http://www.HydroOne.com/projects/)

If you have any questions regarding this project please feel free to contact me at (416) 345-6597, or Yu San Ong, Environmental Planner at (416) 345-5031 or by email at [yusan.ong@hydroone.com](mailto:yusan.ong@hydroone.com)

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian McCormick".

Brian McCormick  
Manager, Environmental Services and Approvals

cc. Ian Jacobsen, Senior Manager, First Nations and Métis Relations

Enc.

# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

The Ontario Power Authority (OPA) has recommended Hydro One Networks Inc. (Hydro One) build a new transformer facility on Hydro One's property as indicated on the map below. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering is the largest generation facility in the east GTA and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, enable future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015. The OPA also recommends this course of action.

Hydro One is initiating a Class EA, in accordance to the *Class Environmental Assessment for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*, to build Clarington TS.



An important part of the Class EA process includes consultation. As such, we are hosting a Public Information Centre on Wednesday, May 23, to provide the community with information about the project, introduce our project team and obtain feedback. The OPA will also be available to answer questions regarding the need and importance of this project.

#### Public Information Centre

Wednesday, May 23, 2012  
5 - 8:00 p.m.  
Solina Community Hall  
1964 Concession Road 6  
Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities

**Hydro One Networks Inc.**  
483 Bay Street  
TCT-4, South Tower  
Toronto, Ontario, M5G 2P5  
yusan.ong@hydroone.com

Tel: 416-345-5031  
Fax: 416-345-6919



**Yu San Ong**, Environmental Planner, Environmental Services and Approvals

May 3, 2012

Dear Sir or Madam:

**RE: Clarington Transformer Station Class Environmental Assessment**

Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario.

The proposed Clarington TS is required to accommodate the eventual closure of Pickering Generating Station (GS), enable future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

The proposed project is subject to the provincial *Environmental Assessment Act* in accordance with the "Class EA for Minor Transmission Facilities". Contingent on the outcome of the Class EA process, construction could begin in spring 2013 with Clarington TS in-service by spring 2015. The Class EA will examine the potential effects of the proposed facilities and recommend mitigation measures. All mitigation and restoration activities will follow Hydro One's policies and guidelines.

Hydro One recognizes the importance of consultation to the planning of the project. A Public Information Centre (PIC) is scheduled for Wednesday May 23, 2012 from 5:00 pm to 8:00 pm at the Solina Town Hall to provide interested parties the opportunity to learn more about the project and discuss any issues or concerns with our project team. Please see the enclosed newspaper ad for details.

In the interim, we welcome your comments and feedback on the Clarington TS project. We would be pleased to arrange a meeting to gather your input and discuss project details. Please complete and return the attached Project Participation Form, indicating the appropriate contact person. Information and updates are also available on our website at [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)

If you have any questions regarding this project please feel free to contact me at (416) 345-5031, or Laura Rynard, Environmental Planner at (416) 345-5811 or by email at [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com)

Sincerely,

A handwritten signature in black ink, appearing to read "Yu San Ong", written over a horizontal line.

Yu San Ong  
Environmental Planner, Environmental Services and Approvals

Enc.

# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

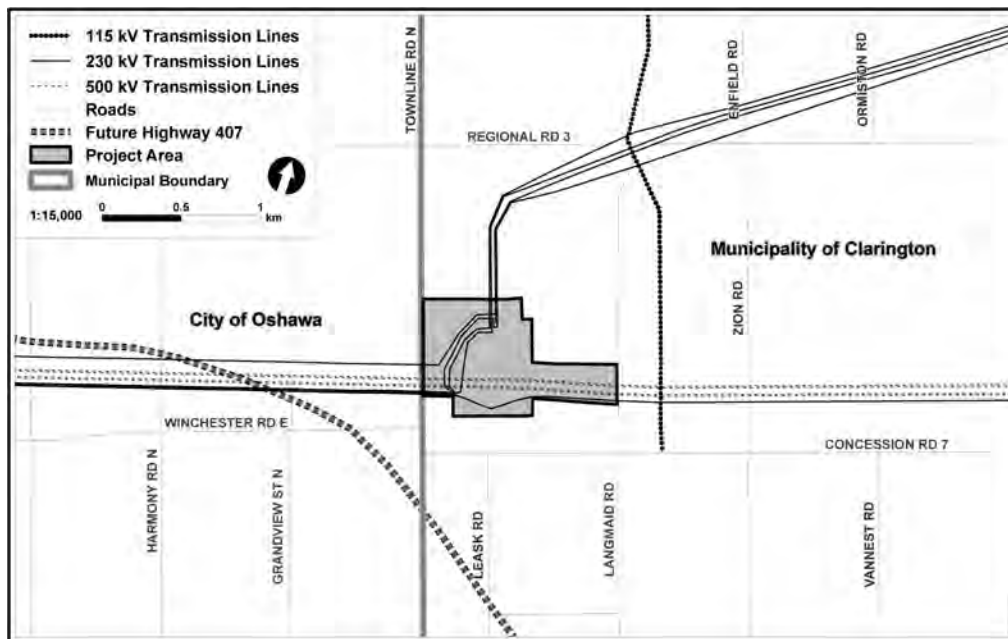
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An important part of the Class EA process includes consultation. As such, we are hosting a Public Information Centre on Wednesday, May 23, to provide the community with information about the project, introduce our project team and obtain feedback. The OPA will also be available to answer questions regarding the need and importance of this project.

#### Public Information Centre

Wednesday, May 23, 2012  
5 - 8:00 p.m.  
Solina Community Hall  
1964 Concession Road 6  
Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities

**PROJECT PARTICIPATION FORM**



To: Yu San Ong, Hydro One Networks

Date: \_\_\_\_\_

Fax: (416) 345-6919

Email: yusan.ong@hydroone.com

**RE: Clarington TS Class Environmental Assessment**

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Contact Name: \_\_\_\_\_

Position Title: \_\_\_\_\_

Department: \_\_\_\_\_

Municipality/Agency: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Preferred Contact Method: \_\_\_\_\_

Please indicate the appropriate response:

\_\_\_ We are interested in providing input regarding this study.

\_\_\_ We are not interested in providing input regarding this study but would like to be kept on Hydro One’s mailing list.

\_\_\_ Please take us off Hydro One’s mailing list for this study.

Municipality/Agency’s areas of interest or concern/preliminary comments:

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Please provide the information of additional contact persons. (Attach additional sheets if required.)

Any questions may be directed to Yu San Ong, Environmental Planner at (416) 345-5031.



**Hydro One Networks Inc.**

483 Bay Street  
South Tower, 8<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5  
www.HydroOne.com

Tel: 416-345-4255  
Fax: 416-345-6984

**Denise Jamal**

Manager  
Public Affairs



May 3, 2012

Mayor John Henry and Council  
City of Oshawa  
50 Centre Street South  
Oshawa, ON L1H 3Z7

Dear Mayor Henry & Council:

**Hydro One Class Environmental Assessment for a new transmission facility - Clarington Transformer Station (TS)**

I am writing to provide you with information about a new transformer station to be located in the Municipality of Clarington. If approved the station would be located east of Townline Road, north of Concession Road 7, adjacent to the City of Oshawa municipal boundary.

The Ontario Power Authority (OPA), the provincial agency responsible for long-term energy planning, has instructed Hydro One Networks Inc. (Hydro One) to construct a new transformer facility to offset the eventual retirement of the Pickering Nuclear Generating Station (NGS). Although the proposed station is to be located in the Municipality of Clarington, I wanted to ensure you are aware should you receive questions from your constituents living in the vicinity.

Pickering NGS supplies as much as 25 per cent of the local and east Greater Toronto Area's (GTA) electricity demand. When the generating station is removed from service, its 3,000 MW of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system. Although the exact date of Pickering NGS's closure has not been determined, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015.

To that end, Hydro One is initiating a Class EA to build a new transformer station in the Municipality of Clarington. This study is being conducted in accordance with the *Class Environmental Assessment for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*.

Clarington TS would occupy approximately 30 hectares of property. The station would include four transformers that would convert energy supplied along the adjacent 500 kilovolt (kV) transmission lines to 230 kV, which would then be supplied to local distribution companies for end-use customers.

An important part of the Class EA process includes consultation with First Nations and Métis communities, government agencies, members of the local community, and other interested parties to ensure that any potential effects of this undertaking are identified and addressed in project plans. As such, we are hosting a Public Information Centre (PIC) on Wednesday, May 23 at Solina Community

Hall at 1964 Concession Road 6 from 5 – 8 p.m., to provide the community with information about the project and obtain feedback. More details can be found in the attached advertisement, which will run in *Oshawa Clarington This Week* on May 10 and 17, in *Oshawa Express* on May 9 and 16 and in *Orono Weekly Times* on May 16 and 23.

Contingent on the successful completion of the Class EA process, construction could begin in 2013 to meet an in-service date of early 2015. Should you have further questions, please don't hesitate to contact me. I can be reached by phone at 416-345-4255 or by email at [Denise.Jamal@HydroOne.com](mailto:Denise.Jamal@HydroOne.com) for more information.

Regards,

Denise Jamal  
Manager, Public Affairs

CC: CAO  
Clerk

# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

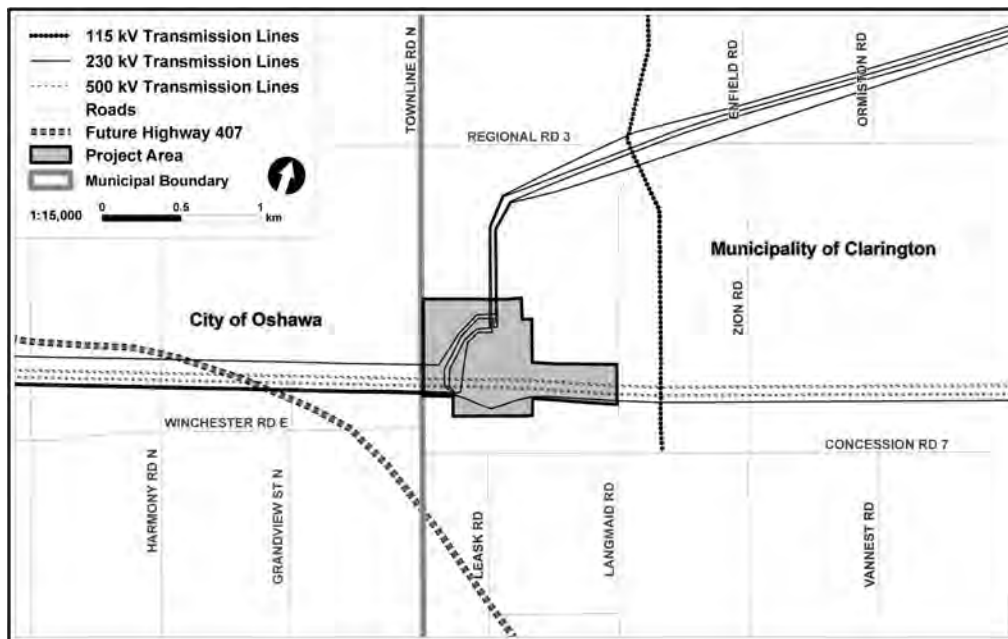
The Ontario Power Authority (OPA) has recommended Hydro One Networks Inc. (Hydro One) build a new transformer facility on Hydro One's property as indicated on the map below. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering is the largest generation facility in the east GTA and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, enable future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015. The OPA also recommends this course of action.

Hydro One is initiating a Class EA, in accordance to the *Class Environmental Assessment for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*, to build Clarington TS.



An important part of the Class EA process includes consultation. As such, we are hosting a Public Information Centre on Wednesday, May 23, to provide the community with information about the project, introduce our project team and obtain feedback. The OPA will also be available to answer questions regarding the need and importance of this project.

#### Public Information Centre

Wednesday, May 23, 2012  
5 - 8:00 p.m.  
Solina Community Hall  
1964 Concession Road 6  
Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities

**Hydro One Networks Inc.**  
483 Bay Street  
South Tower, 8<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5  
www.HydroOne.com

**Denise Jamal**  
Manager,  
Public Affairs



May 3, 2012

Dear Resident:

**Hydro One Class Environmental Assessment for a new transmission facility - Clarington Transformer Station**

I am writing to inform you that Hydro One is initiating a Class Environmental Assessment and the necessary work to build a new transformer station in the Municipality of Clarington. Clarington Transformer Station (TS) would occupy approximately 30 hectares of Hydro One owned property, west of Langmaid Road and north of Concession Road 7, as shown on the attached map. This study is being conducted in accordance with the *Class Environmental Assessment (EA) for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*.

Electricity demand in the Greater Toronto Area (GTA) including Durham Region is supplied from a number of Hydro One's transformer stations together with Ontario Power Generation's facilities including Pickering Nuclear Generating Station (NGS). The eventual retirement of the Pickering NGS will remove 3,000 MW of generation from the GTA which must be replaced by a corresponding amount of power through Hydro One's transmission system. To offset this loss, the Ontario Power Authority, the provincial agency responsible for long-term energy planning, recommends that Hydro One construct a new transformer station to provide the required supply to the GTA.

Clarington TS would convert energy transmitted on the 500 kilovolt (kV) transmission lines to the 230 kV transmission lines, which then supplies local distribution companies for end-use residential and business customers.

Although the exact date of Pickering NGS's retirement has not been determined, Hydro One must be prudent and for this reason, we are beginning the Class EA with intent of having Clarington TS in-service by May 2015.

To provide you with an opportunity to discuss plans for Clarington TS, Hydro One is hosting a Public Information Centre (PIC) from 5 – 8:00 p.m. on Wednesday, May 23, 2012 in the Solina Community Hall at 1964 Concession Road 6.

At this PIC, Hydro One will provide you with information about the project, answer your questions and introduce you to our project team. More details can be found in the attached advertisement, which will run in *Oshawa Clarington This Week* on May 10 and 17, in *Oshawa Express* on May 9 and 16 and in *Orono Weekly Times* on May 16 and 23.

If you require more information following the PIC, our project team is available to further discuss the project with you.

# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

The Ontario Power Authority (OPA) has recommended Hydro One Networks Inc. (Hydro One) build a new transformer facility on Hydro One's property as indicated on the map below. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

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Wednesday, May 23, 2012  
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1964 Concession Road 6  
Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities

In the interim, please contact me at 1-877-345-6799 or by email at [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have additional questions.

Regards,

Denise Jamal  
Manager, Public Affairs

Enc.

## **Appendix B3: Public Information Centre #1**



# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

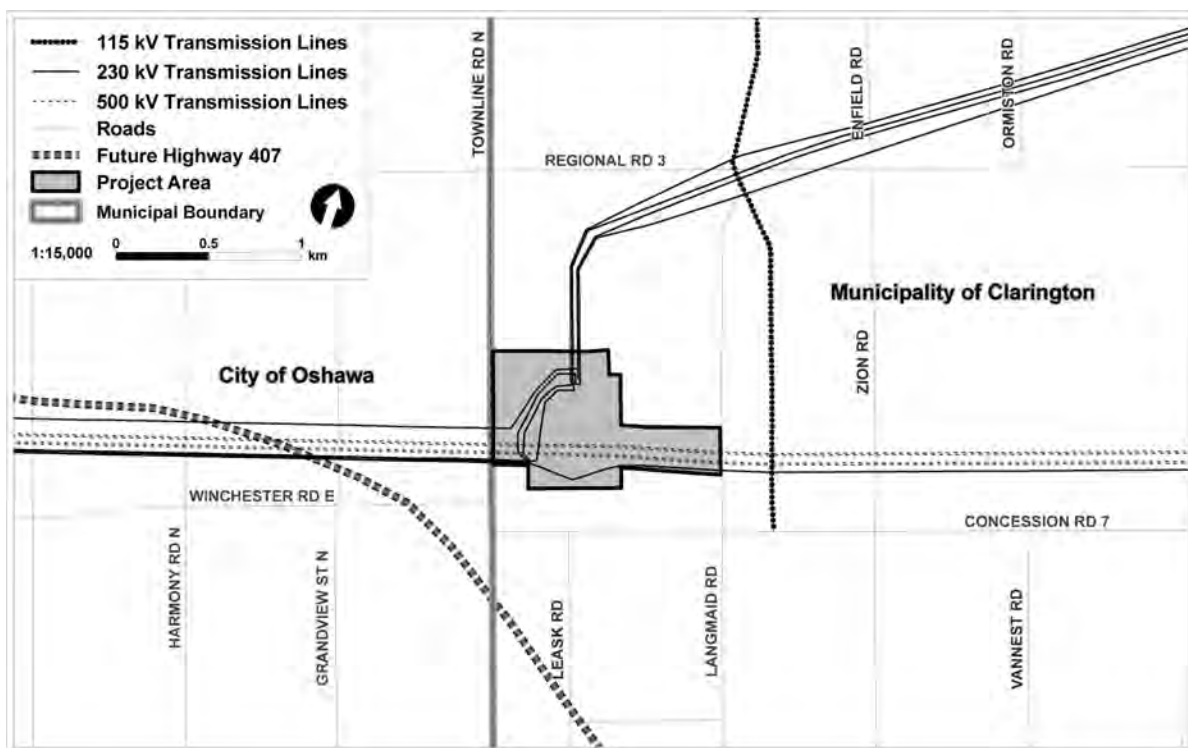
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The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering is the largest generation facility in the east GTA and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, enable future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015. The OPA also recommends this course of action.

Hydro One is initiating a Class EA, in accordance to the *Class Environmental Assessment for Minor Transmission Facilities* approved under the provincial *Environmental Assessment Act*, to build Clarington TS.



An important part of the Class EA process includes consultation. As such, we are hosting a Public Information Centre on Wednesday, May 2, to provide the community with information about the project, introduce our project team and obtain feedback. The OPA will also be available to answer questions regarding the need and importance of this project.

## Public Information Centre

Wednesday, May 2, 2012  
5 - 8:00 p.m.  
Solina Community Hall  
1964 Concession Road 6  
Solina

## For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)

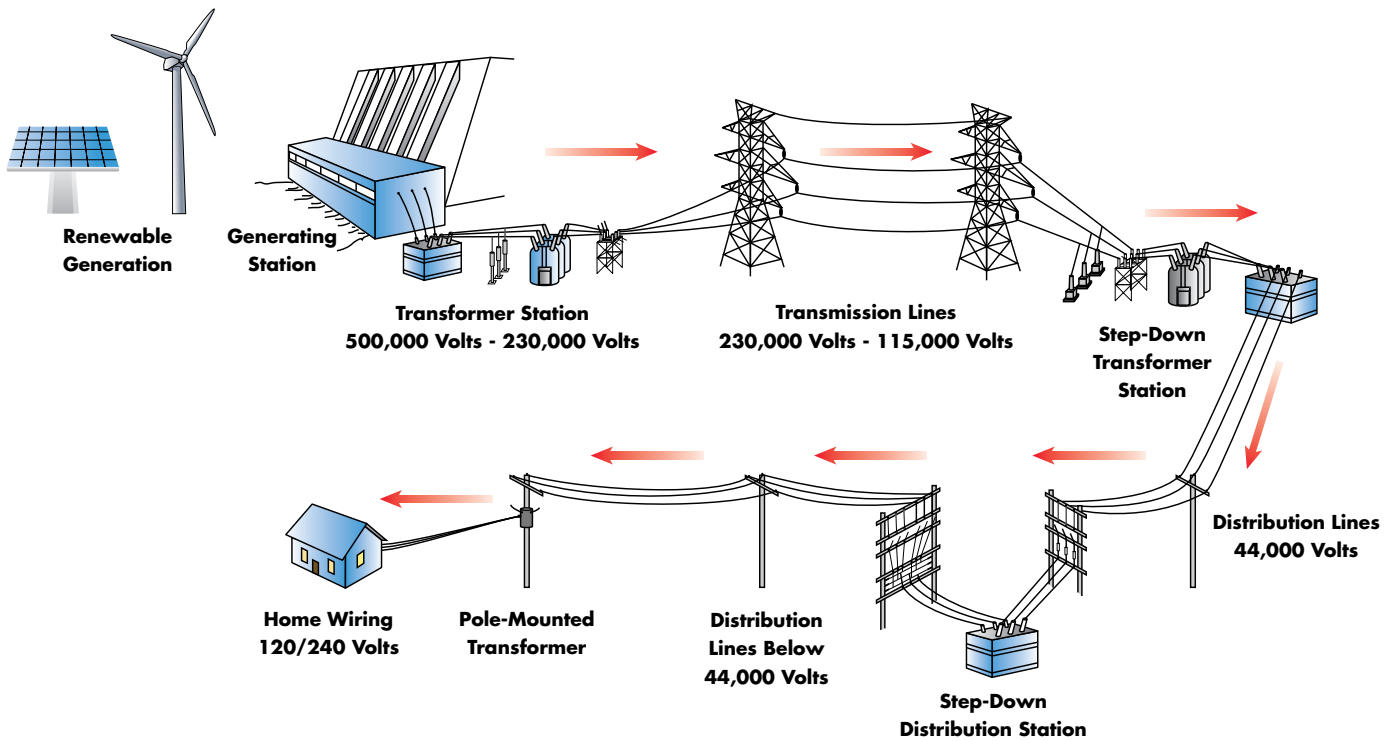


Partners in Powerful Communities



# **Welcome to our Public Information Centre**

# Electricity Flow Diagram



## Key Organizations



- **Hydro One Networks Inc.** builds, owns, operates and maintains transmission and distribution facilities across the province of Ontario



- The **Ontario Power Authority (OPA)** develops plans to ensure electricity needs are met for the benefit of Ontario both now and in the future



- **Ontario Power Generation (OPG)** is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario

# Need for New Transmission Facilities in GTA, including Durham Region

- OPG's Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 – 2020
- Pickering NGS currently supplies the GTA (including Durham Region) with more than 25 per cent of its peak electricity demand
- When Pickering NGS is removed from service, its 3,000 megawatts\* of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system
- The OPA has recommended that Hydro One build a new transformer station in the east GTA to ensure there is an adequate power supply and improved reliability for the Pickering, Ajax, Whitby, Oshawa and Clarington areas
- The proposed station, **Clarington Transformer Station (TS)** will enable power flow from the 500 kV network to the 230 kV network to offset the loss of 3,000 MW of supply lost from Pickering NGS' output

\*1 MW is the equivalent of approximately 250 average residential users

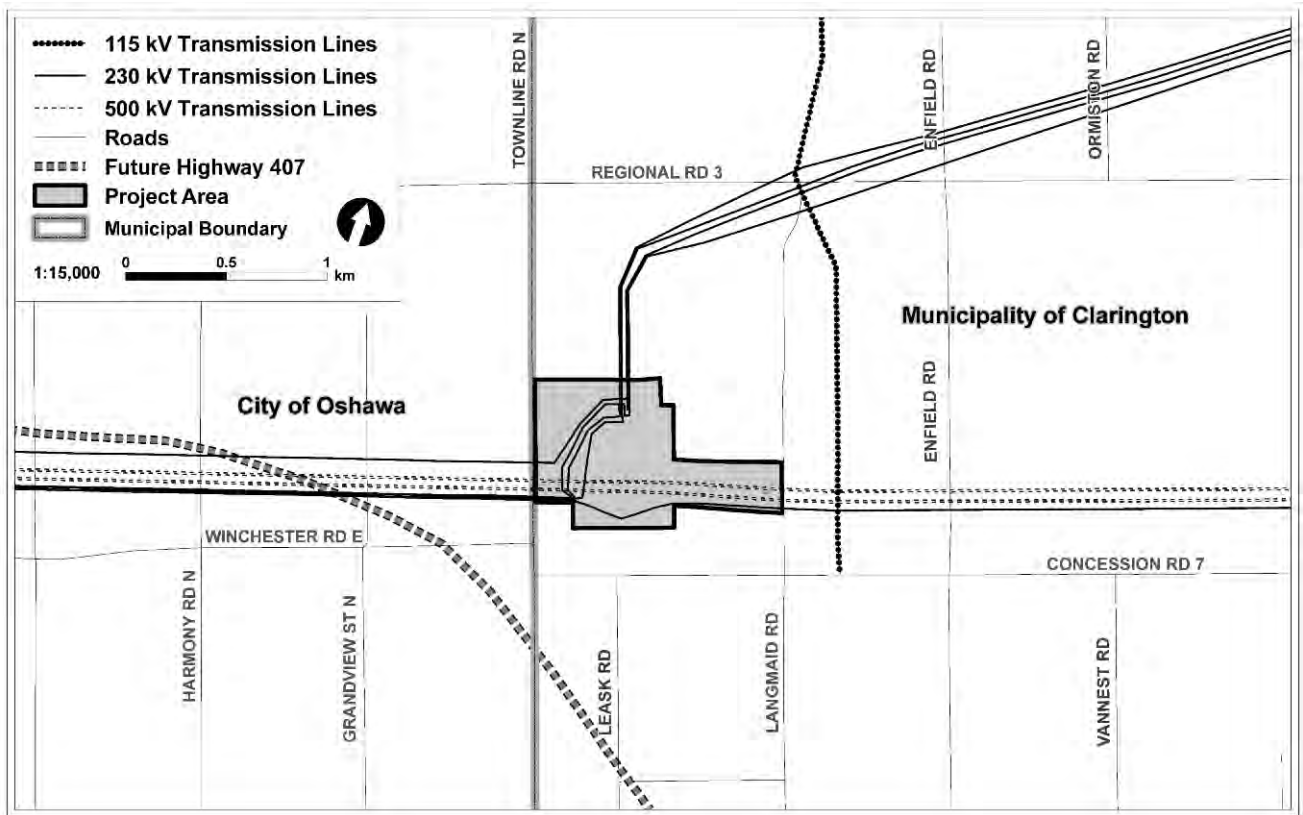
## Options Investigated

- 1) Do Nothing: without offsetting the 3,000 MW from Pickering NGS, overloading could occur at Cherrywood TS, which would necessitate significant load shedding (ie, power interruptions for area customers)
- 2) Expand existing stations by installing two additional transformers:
  - Cherrywood TS – Technically not feasible due to station equipment limitations
  - Parkway TS – does not have adequate 230 kV line connections to provide the required support to the 230 kV system
  - Both these options do not meet the long-term supply and reliability needs for east GTA
- 3) Other greenfield sites: not cost-effective and not consistent with the Provincial Policy Statement (2005) of using existing infrastructure corridors before exploring greenfield sites

## Site Selection Rationale

- Site is owned by Hydro One, eliminating the need to acquire land rights for the proposed station
- Site was purchased 30 years ago with the foresight to build a station to handle future electrical needs
- Site is where the existing 500 kV and 230 kV lines cross, eliminating the need to acquire land rights for new lines
- Site provides adequate space, meets technical requirements and is the most cost-effective option
- Consistent with the Provincial Policy Statement (2005)

# Clarington TS

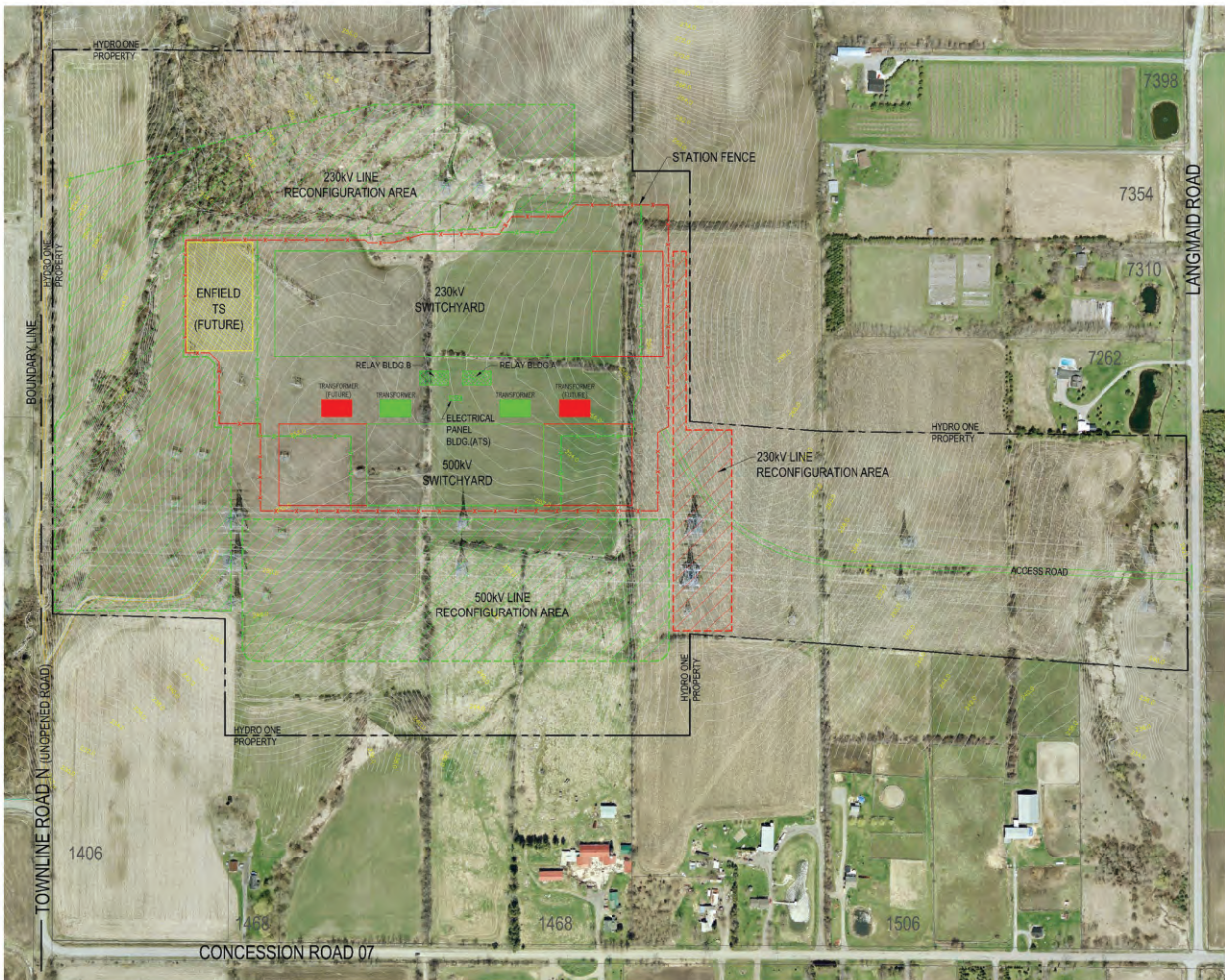


# Features of the Clarington TS Project

- The station will include two 500/230 kV transformers, appropriate fencing, access road, lightning protection, grounding, and storm water management
- Three buildings that will house protection and control equipment
- Necessary switchgear including 500 kV and 230 kV breakers
- New towers would be installed to connect the existing 500 kV and 230 kV lines to the proposed station and some may be taller than what currently exists
- Associated distribution lines
- Clarington TS will have sufficient space to accommodate two additional 500/230 kV transformers and associated equipment when required
- Enfield TS (approved 2008) can be installed if required by local demand



# Proposed Station Layout



**CLARINGTON TS  
CONCEPTUAL LAYOUT**

LEGEND:	
	FENCE
	FENCE -FUTURE
	LINES RECONFIGURATION AREA
	LINES RECONFIGURATION AREA -FUTURE
	STATION SWITCHYARD
	STATION SWITCHYARD -FUTURE

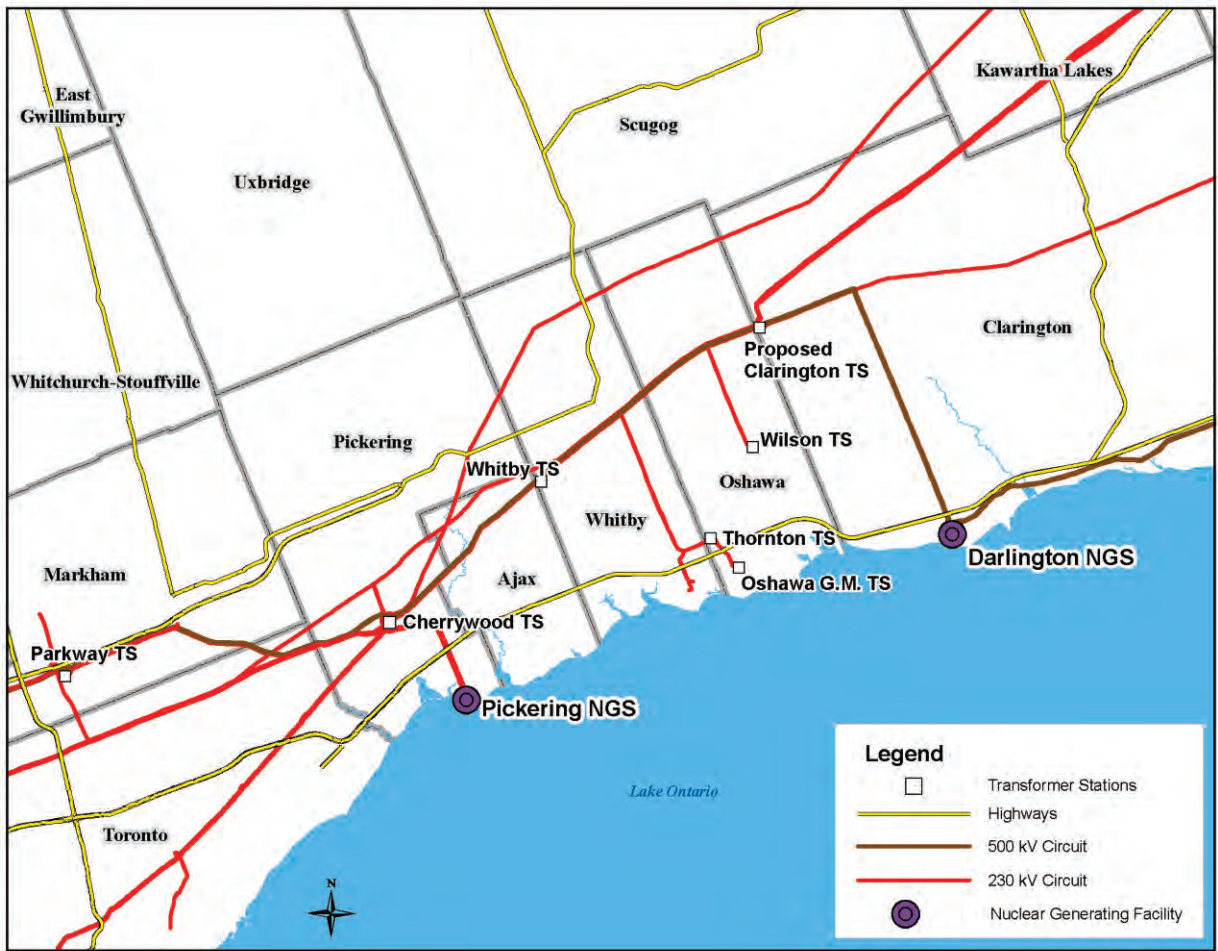
MAY 2012



# Photo of a Similar Looking Transformer Station



# Hydro One Transmission System in East GTA



Map12-02\_ClaringtonTS\_ppt\_v2

# Environmental Planning Process

During project planning and design, Hydro One will identify potential project effects related to:

- Property owners in the vicinity of the project area
- Existing land uses and infrastructure
- Community recreational resources
- Built heritage resources
- Archaeological resources
- Cultural heritage landscape (including visual resources)
- Natural heritage features of Oak Ridges Moraine and Green Belt protected areas
- Biodiversity and habitat
- Environmentally significant areas
- Storm water management

# Typical Construction Activities

- Access road to be installed to facilitate heavy vehicle access
- Selective removal of vegetation for access roads, work area and site development
- Site area grading
- Installation of necessary site drainage components
- Erection of towers
- Installation of transformers and associated equipment

# Environmental Mitigation Measures

Measures to prevent or mitigate potentially adverse environmental effects during design, construction and operation include:

- Work with adjacent land owners to minimize effects
- Vegetation clearing outside of migratory bird breeding season
- Protection of cultural heritage resources
- Assessment of visual appearance of station
- Assessments of claims for crop losses during construction
- Adherence to erosion and sediment plan
- Control of noise, mud, dust, traffic disturbances and other nuisance effects during construction
- Environmental management during construction and operation

# Approval Requirements

## ***Ontario Environmental Assessment Act***

- These facilities are subject to provincial *Environmental Assessment Act* approval in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, as a precursor to any other separate approvals

## **Other**

- Hydro One will meet all other legislative and permitting requirements

## Class EA Process

- In 1978, a *Class EA for Minor Transmission Facilities* was developed and approved by the Ontario Ministry of the Environment (MOE) and implemented by Ontario Hydro (now Hydro One). The Class EA was updated in 1992.
- The Class EA process is an effective way of ensuring that minor transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner
- Following the consultation process, a draft Environmental Study Report (ESR) will be available for public, First Nation and Métis communities, and stakeholder review and comment



## **Class EA Process**

*(continued)*

- If no concerns are expressed during the review period, the project is considered acceptable. Hydro One will file the final ESR with the Ontario Ministry of the Environment
- If concerns are expressed during the review period, Hydro One will attempt to resolve them in order to complete the Class EA process
- If stakeholders are dissatisfied with the process or Hydro One's project recommendations, a higher level of assessment referred to as a Part II Order can be requested by writing to the Minister of the Environment

## Next Steps

Public Information Centre #2	Summer/Fall 2012
30 Day Draft ESR Review Period	Fall 2012
Submit Final ESR	Winter 2012/13
Begin Construction	Spring 2013
Station In-service	Spring 2015

# **Your Input is Important to Us**

Thank you for attending our Public Information Centre

Please fill out a comment form before you leave,  
or send us your comments afterward

## **For project information, please contact us at:**

Website: [www.HydroOne.com/projects/clarington](http://www.HydroOne.com/projects/clarington)

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Information Line: 1-877-345-6799

Fax: 416-345-6984



**COMMENT FORM**  
**Clarington Transformer Station**  
Public Information Centre #1  
May 23, Solina Community Hall

**Thank you** for attending Hydro One’s Public Information Centre (PIC). Please take a moment to answer a few questions. Please note your comments and/or questions about the PIC and the information presented.

1. Did you find the PIC helpful in understanding the proposed transformer station in your neighbourhood?      Yes / No
2. Did you have an adequate opportunity to express your views to Hydro One’s project team?  
Yes / No
3. Do you have any particular comments, questions, or concerns regarding this project?  
(Additional space on reverse)

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Please provide your contact information so that we may follow-up with you on your comments and/or questions, and add you to our project contact list for future communications.

Name: \_\_\_\_\_

Mailing Address & Postal Code: \_\_\_\_\_

Tel: \_\_\_\_\_ Email: \_\_\_\_\_

**Please leave your comment form in the comment box at this meeting or send it to:**

Denise Jamal, Hydro One Networks Inc.  
483 Bay Street, 8<sup>th</sup> Floor, South Tower, Toronto, ON M5G 2P5  
Tel. 1-877-345-6799; Fax: 416-345-6984; Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

*Please be advised that any of your personal information contained on this comment form will become part of the public record files for this project, and may be released, if requested, to any person, unless you state on this form that you do not consent to your personal information becoming part of the public record files and disclosed to any person upon request.*

(Additional comment space on reverse)



**Appendix B4: Community Information Meeting**





## **COMMUNITY INFORMATION MEETING Clarington Transformer Station**

Dear Neighbours,

Hydro One held a Public Information Centre on May 23, 2012 in Solina to discuss the proposed Transformer Station (TS) located in the Municipality of Clarington.

Clarington TS would occupy approximately 30 hectares of Hydro One-owned property, west of Langmaid Road and north of Concession Road 7. The station would include four transformers that would convert energy from the adjacent 500 kilovolt (kV) transmission lines to 230 kV, which would then be supplied to local distribution companies for end-use customers.

Residents may recall that Hydro One received Class Environmental Assessment approval in 2008 to build a transformer station (Enfield TS) on the same property to supply the local area. Enfield TS is not required at this time because electricity demand in the area is growing slower than anticipated. Clarington TS is a separate project from the approved Enfield TS, and will serve the electricity supply needs of the east Greater Toronto Area (GTA). When Enfield TS is required, it will be built within the Clarington TS site.

Clarington TS is being planned in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, approved under the *Environmental Assessment Act*. Hydro One will review and consider all public comments within the context of the planning and consultation process outlined in the *Class Environmental Assessment for Minor Transmission Facilities*.

Hydro One takes its responsibility to respect the local environment seriously. We are required to undertake an Environmental Assessment (EA) for this project and will consult throughout the EA process with the Central Lake Ontario Conservation Authority, government agencies (e.g., Ontario Ministry of Natural Resources and Ministry of the Environment), municipalities, First Nations and Métis communities, and individual stakeholders to identify potential effects and determine appropriate mitigation measures to minimize the effects of this project on the natural and socio-economic environment.

To answer any questions you may have about the proposed project and to best address community concerns, Hydro One is holding an additional meeting (see attached ad) in Solina. We look forward to meeting face to face to obtain project feedback, listen to and address community issues and provide important project updates.

**Please join us on: Tuesday, September 11, 2012  
6:30 p.m. – 8:30 p.m., presentation at 7:00 p.m.  
Solina Community Hall  
1964 Concession Road 6, Solina**



Residents who were unable to attend the first Public Information Centre will have the opportunity to review the same maps and displays and hear directly from the project team. The meeting will be moderated by an independent facilitator to make best use of the available time and to ensure comments and questions are captured.

If you are unable to attend the meeting, please refer to the project information on Hydro One's website: [www.HydroOne.com/projects](http://www.HydroOne.com/projects). We will be pleased to receive your input and questions at any time.

### **Hydro One Community Relations**

Tel: 1-877-345-6799

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com).



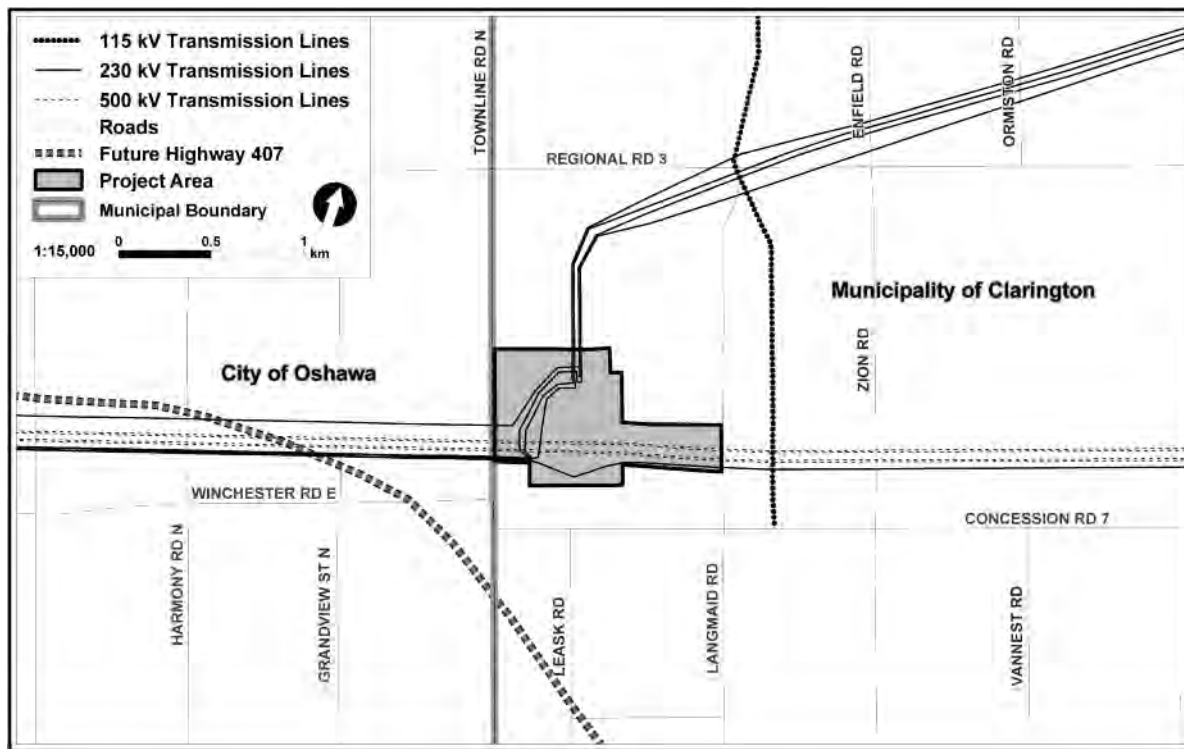
# Hydro One invites you to attend a Community Information Meeting Clarington Transformer Station

The Ontario Power Authority (OPA) has recommended that Hydro One Networks Inc. (Hydro One) build a new transformer facility on Hydro One property in the Municipality of Clarington. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering NGS is the largest generation facility in the east GTA and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, ensure continued electrical supply and growth in the east GTA and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers. The proposed location for Clarington TS is shown on the map below.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent. And as such, the Class Environmental Assessment (EA) process has been initiated to ensure Clarington TS can be in service as early as 2015. The OPA also recommends this course of action.



Hydro One is holding a community meeting to provide information about the station and to answer to any questions. Formal presentation begins at 7 p.m.

## Community Information Meeting

Tuesday, September 11, 2012

6:30 - 8:30 p.m.

Solina Community Hall

1964 Concession Road 6

Solina

## For information contact:

Denise Jamal, Hydro One Community Relations

Tel: 1 877 345-6799

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities



**COMMENT FORM**  
**Clarington Transformer Station**  
Community Meeting for Area Residents  
September 11, 2012, Solina Community Hall

**Thank you** for attending Hydro One's Community Information Meeting. Please take a moment to answer a few questions. Please note your comments and/or questions about the PIC and the information presented.

1. Did you find the session helpful in understanding the proposed transformer station in your neighbourhood?      Yes / No
2. Did you have an adequate opportunity to express your views to Hydro One's project team?  
Yes / No
3. Was the meeting facilitator effective in conducting the meeting and providing everyone with the opportunity to speak?      Yes / No
4. Do you have any particular comments, questions, or concerns regarding this project?  
(Additional space on reverse)

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Please provide your contact information so that we may follow-up with you on your comments and/or questions, and add you to our project contact list for future communications.

Name: \_\_\_\_\_

Mailing Address & Postal Code: \_\_\_\_\_

Tel: \_\_\_\_\_ Email: \_\_\_\_\_

**Please leave your comment form in the comment box at this meeting or send it to:**

Denise Jamal, Hydro One Networks Inc.  
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(Additional comment space on reverse)

**COMMENT FORM**

**Clarrington Transformer Station**

Community Meeting for Area Residents  
September 11, 2012, Solina Community Hall

Comments or Questions:

Lined area for comments or questions, consisting of approximately 22 horizontal lines.

September 2012

# Community Information Meeting Proposed Clarington Transformer Station Class Environmental Assessment

Providing a Project Update and an Opportunity for the Community to Seek Clarification  
and Identify Concerns

K.R. Wianecki, Facilitator

Planning Solutions Inc.

September 11<sup>th</sup>, 2012

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## Meeting Proceedings

As part of its Long Term Power System Planning objective, the Ontario Power Authority (OPA) has recommended that Hydro One proceed with plans to build a new transmission facility on Hydro One owned property in the Municipality of Clarington. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired sometime between 2015 and 2020. Pickering is the largest generation facility in the GTA and supplies as much as 25 per cent of the East GTA's electricity demand. When the generating station is removed from service, its 3,000 MW of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process immediately to ensure the station is ready to be in service as early as 2015, as recommended by the OPA.

In keeping with the requirements set out in Hydro One's *Class Environmental Assessment for Minor Transmission Facilities* (1992), Hydro One held a Public Information Centre (PIC) at the Solina Town Hall on May 23, 2012. At the PIC, information about the project was presented and Hydro One and OPA staff was present to answer questions and provide project details. Hydro One received feedback following the PIC, and residents expressed that there was concern that the low attendance at the PIC could have been the result of miscommunication. Hydro One had previously completed a Class Environmental Assessment, in 2008, for a transformer station (Enfield TS) to serve the local distribution system from the current site, and some residents indicated that the community understood the PIC was to provide construction details on that previous project. Those in attendance at the May meeting suggested that a second meeting be organized to ensure the community was aware of the need for another proposed transformer station, to reliably serve the high voltage transmission system in the area, from the same site. In keeping with the community concerns, Hydro One held a Community Information Meeting at the Solina Town Hall on the evening of September 11<sup>th</sup>. The meeting commenced at 6:30 pm and concluded at or around 9:30 pm. The following captures the key points of discussion that emerged during the meeting.

These proceedings have been prepared for Hydro One by Planning Solutions Inc. and are being distributed to Hydro One for circulation to those in attendance at the meeting as well as others who may have an interest in the comments, questions and concerns that emerged.

It should be noted that these proceedings were not captured verbatim; rather the themes of questions and answers have been categorized and summarized below.

## **1.0 Introductory Remarks**

Denise Jamal, Manager of Public Affairs for Hydro One, welcomed all in attendance to the meeting. She thanked everyone in attendance for coming to the meeting and introduced MPP John O’Toole.

MPP O’Toole spoke about his involvement in the project and the concerns that have been expressed by members of his constituency. He noted his concern with the proposed construction of a transformer station in Clarington and made reference to the Oak Ridges Moraine and the Greenbelt Act and Plan that have been endorsed by the Province. He cited his concern and his intent to represent members of his constituency and noted the support from the community in ensuring these concerns are raised.

Randy Church, Hydro One introduced himself as the Project Development Manager for the Clarington Transformer Station project and took a few moments to introduce and to identify members of the Hydro One team including Doug Magee from Environmental Services & Approvals, Jeff Cridland from Project Management, Rob Thomson from Real Estate and Daffyd Roderick, Director of Communications. Randy also took the time to introduce Luisa Da Rocha, Manager, Stakeholder Relations and Joe Toneguzzo, Director of Transmission Integration from the OPA. As Randy noted, the OPA were in attendance to address the issue of need and to address why a transformer station is required. In addition to identifying the professional staff from the OPA and Hydro One, Randy also introduced Karen Wianecki, facilitator of the meeting.

Karen took a few moments to provide an overview of the meeting purpose and objectives. Karen noted that the meeting had been convened at the request of the community. She indicated that the meeting had been organized by Hydro One in response to concerns raised by community members and further that the meeting had been structured to provide a two-way exchange of information. Karen reviewed a number of important ground rules; key among them was the need for respectful dialogue. Karen suggested keeping the meeting informal but noted the importance of being able to hear all speakers. She noted Hydro One’s interest in listening to and learning from the community and she invited attendees to seek clarity, ask questions, make comments and share concerns.

Against that backdrop, Karen suggested the meeting would begin with a presentation from Randy Church and Hydro One. Randy’s presentation would set some important context and would describe the process and the need for the facility. Karen asked attendees to hold their questions to the end of the presentation to allow Randy to complete his presentation and made a commitment at that time to open the floor for questions.

## **2.0 Setting the Context – Randy Church**

### **2.1 An Overview of the Electricity System in Ontario**

Randy Church, Project Development Manager, began his presentation by outlining Hydro One’s commitment to work with the community, to provide an overview of the Class Environmental

Assessment process, to discuss the proposed site and alternatives considered and to listen and hear the concerns expressed by those in attendance.

An overview was provided of the electricity industry as well as the framework and structure of the industry in Ontario. Randy reviewed the role of key participants including the role and the responsibilities of Hydro One, the OPA, the Independent Electricity System Operator (IESO), the Ontario Energy Board (OEB) and various generation companies including Ontario Power Generation (OPG), Invenergy, TransAlta, Pristine Power Inc., to name a few.

## **2.2 The Need for a Transformer Station**

An overview of Ontario's electricity system was also provided and the need for Clarington TS was provided. As Randy noted, Pickering Nuclear Generating Station (NGS) is scheduled to close sometime between 2015 and 2020. When Pickering NGS is removed from service, there is a need to transmit power to the eastern GTA and the proposed Clarington site is optimally located to transmit that power. It was noted that the Clarington TS is not generating power but rather acting as a transmission facility to deliver electrical power to customers in the east GTA. It is a site that will bring electricity from the Province-wide 500 kilovolt (kV) Transmission Network to the local 230 kV system serving the east GTA. As much as 25% of Pickering NGS's power currently supplies the east GTA's electricity load.

As Randy explained, the OPA, with support of IESO and Hydro One, looked at a number of alternatives. This included the feasibility of Cherrywood TS and also Parkway TS. He spent some time identifying the inherent limitations associated with the Cherrywood and the Parkway sites, noting that there are technical issues with Cherrywood TS and in the case of the Parkway TS, there is no 230 kV transmission infrastructure in place. The implementation of additional circuits at Parkway TS was determined to present significant technical challenges and high costs as the site is in a highly urbanized part of Toronto.

As part of the Class EA process, other sites brought forward by residents will be considered. These sites will be assessed using the following criteria – technical requirements, economics, and environmental consideration. This will be addressed and documented in the Environmental Study Report (ESR).

## **2.3 Rationale for the Clarington Site**

The Clarington site has been identified by Hydro One as the only viable alternative for the project. This, Randy explained is the result of several key factors:

- The site is strategically important. Both the 500 kV and 230 kV lines intersect at this location
- The site is of a sufficient size to accommodate the transformer station.
- The site was acquired by Ontario Hydro in 1978 for future use as a transformer station.
- The site already has existing transmission facilities and is consistent with the Provincial Policy Statement (2005) stating that “the use of existing infrastructure and public services facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public services facilities”.
- The site is designated “utility” and transmission facilities are of permitted use under the Municipality of Clarington Official Plan (2007), the Region of Durham Official Plan (2008), the Oak Ridges Moraine Conservation Plan (2001), and the Greenbelt Plan (2005).



## 2.4 The Class Environmental Assessment Process

Randy provided an overview of the Class Environmental Assessment (EA) process.

A second Public Information Centre is planned for sometime in the fall where the details of the project will be presented along with the proposed mitigation measures. A draft Environmental Study Report (ESR) will be prepared and the community will have an opportunity to review the draft ESR and offer comments. Consultation activities as well as issues and concerns raised by affected parties during the process will be addressed and documented in the ESR. As Randy explained, the draft ESR will be circulated for a period of 30 days and following the review period it will be finalized and filed with the Ministry of the Environment. Once the final ESR has been filed with the MOE, the project is considered to be acceptable and may proceed as described in the ESR. There is an opportunity for concerned parties to submit a Part II Order request to the Minister of the Environment to elevate the status of the project (i.e., from a Class EA project to an Individual EA project). A Part II order request would be considered by the Minister of the Environment and a decision would be made.

Randy indicated that the closure of the Pickering NGS as early as 2015 requires Hydro One to commence construction in the Spring of 2013. This timing would ensure that the station is in service for 2015. He did note that if there is a decision made by the appropriate regulatory authorities and the Pickering NGS is allowed to continue to operate beyond 2015, there could be a slowdown in the timing for construction. At this time, Hydro One is working towards a spring 2013 construction start.

## 3.0 Comments & Questions

Following Randy's presentation, Karen Wianecki opened the floor for questions. The following questions and the answers provided have been captured and grouped into themes. Please note: Q denotes a question, A denotes the answer and C denotes a comment.

### Class EA

1. *Q: Is there any connection to the previous EA that was completed for the Enfield site that suggested the site be located west of Townline?*

Hydro One Position: As part of the Enfield EA, a study area was defined where potential sites would be identified and considered. "The study area is generally centred on the Oshawa Area Jct located just east of the Oshawa-Clarington municipal boundary extending approximately 2 km east and west and 600 m north and south." (p.9 of final Enfield ESR)

2. *Q: During the previous EA, certain habitats for endangered species were noted to be protected. Is the new station going to include endangered species?*

Hydro One Position: The ESR will take into account endangered species review. Studies regarding species at risk have been undertaken and the only species identified relates to butternut trees. Hydro One is also required to consider species of concern and a thorough review has been completed.

3. *Q: The previous EA noted that the site would be protected and called for the rehabilitation of the site to allow for the potential return of Loggerhead Shrike. Will this be taken into account when the current EA is being completed?*

Hydro One Position: Loggerhead Shrike was not found on the site. The notion of rehabilitation of the site to allow for the return of this species could be taken into account. To confirm, we have access to and have reviewed all of the material from the previous EA.

4. *C - from a community member: The beginning of this project suggested that this would be a small distribution station. There are a number of environmental issues – why did the 407 not route through here? Now we are at 100 acres and that requires a full Environmental Assessment. Why this site? You have open waters – springs – they feed the moraine. It is a major recharge area. We have talked about (transformer) explosions. We only have to have one and you have contaminated miles of water. These are not creeks or streams or veins of water that run underneath. Wells will be directly impacted even if heavy equipment is used on site. There has not been anything done to convince me that this project on top of the Oak Ridges Moraine makes any sense.*

C – Denise Jamal: I would like to address the issue of communications from Hydro One’s perspective. I know there were issues around consultation with the Enfield project. When we were starting the Clarington TS Class EA, we went beyond the requirements to ensure that we reached out to the community. We did this by hand delivering project notices to the community within a 2 km radius. The first Public Information Centre (PIC) had an attendance of 19. Many members of the community suggested that folks had not attended because they simply thought the meeting was about the Enfield site. Most did not realize that a new proposal was being considered by Hydro One. This is why a second Community Information Meeting is being held. Regardless of what has taken place in the past, Hydro One is committed to working with you. We will do our very best to address your concerns.

5. *C - from a community member: We have been working on these issues for 6 years. The first indication was that notice was provided that some sites were being considered for the Enfield transformer station. Some of the meetings were held in Oshawa and only 2 people showed up. There was an overwhelming number of Hydro One staff in attendance and a realtor who happened to be at the meeting shared information and noted that at that time, 7 sites were being considered. He noted that 7:1 odds suggest this would not occur in my backyard. There was a notice provided in the Clarington Times that indicated that the first EA completed by Stantec was going to be available for review from the reference section of the library in Oshawa for anyone with an interest in seeing it. I took the time to review that document and I noted that it contained a number of errors. A meeting was convened and there were two sites to be chosen: A is the chosen site and site B was off the moraine. The off Moraine site was noted as having a problem – why was site B included if there was a problem with it in the first place? A site further to the north was identified by community members. There is another environmental assessment and I am asked to proof and edit that document which I do. This is site C. The process sounds very scientific but in reality, community members found Site C and Site A is the one that you are focusing on. The current site that you are*

*focusing on is on the Moraine and in the Greenbelt and this takes away your credibility because you have not been truthful. This is the third group we have dealt with from Hydro One. The original people should come back and deal with us.*

6. Q: *Is there anyone here from Stantec?*

Hydro One Position: Stantec is not represented here tonight. They are not involved to the same extent that they were with the Enfield site. Stantec have been retained by Hydro One to complete only the natural features inventory. There is no engineering component in this phase that is being contracted out as there was in Enfield. Hydro One is completing the engineering work.

7. Q: *Do you know who did the EA for the Mississauga gas fired plant? Do you know who did the EA for Wesleyville? The EA for the Mississauga gas fired plant was not well done and it was peer reviewed. The EA has to be accurate and done correctly and if Stantec was employed in that EA we are concerned. Can you find out who completed the EA for the Mississauga gas fired plant?*

Hydro One Position: We don't know who did the EA for the Mississauga gas fired plant. It was not a Hydro One facility. In terms of the Wesleyville site, Ontario Hydro did the EA work. We can look into the Mississauga gas fired plant EA and find out who completed that for you, yes.

<p>ACTION: HYDRO ONE TO DETERMINE WHO WAS RESPONSIBLE FOR COMPLETING THE ENVIRONMENTAL ASSESSMENT FOR GREENFIELD SOUTH POWER PROJECT?</p> <p>"Greenfield South Power Project", it is a generation project under the Category B Generation projects under the O.Reg 116/01. The Environmental Screening and Review Report was dated 2005.</p>
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8. Q: *This is a major project. Does a project of this magnitude not require an individual EA?*

Hydro One Position: The proposed Clarington TS project, a 500/ 230 kV transformer station, falls within the criteria defined in the Class Environmental Assessment for Minor Transmission Facilities (1992, Ontario Hydro), which was approved by the Ministry of the Environment under the Environmental Assessment Act.

## **Need and Alternatives**

Q: *We asked in the spring for you to elaborate on the Cherrywood site and a detailed assessment of why it is not a feasible site. We are still waiting for that assessment. What is the problem with upgrading the Cherrywood site, this is still not clear. Can you elaborate?*

Hydro One Position: The Cherrywood site presents a number of technical challenges. In order for Cherrywood to accommodate an additional load, the entire site would have to be upgraded and while this could be done, it would be at a huge expense and some technical limitations would still remain.

9. Q: *Whether the transformer station is in Clarington or Pickering, what is the difference?*

OPA Position and Hydro One Position: There are 500 kV lines and 230 kV lines which converge at the Clarington site. Power comes from other places in the Province through the 500 kV lines and local transformers must be used to convert the voltage to 230 kV for local transmission. There is no 500 kV system anywhere near the Pickering GS site. A new autotransformer station would have to be developed at Pickering and a new 500 kV line would have to be constructed through the middle of the municipality of Pickering. There is an added complication in that the Pickering Nuclear Generating Station is a site owned by OPG, not Hydro One. To bring a new 500 kV line to Pickering, through an urbanized municipality and do that while Pickering is still in operation would be extremely challenging

10. Q: *Why can't Pickering be refurbished? Why don't we just put generation at Pickering? No one had a problem with the Enfield station. We agreed to the Enfield distribution station but every time you come back here, there is a bigger proposal and this one is for a huge transformer station that we never agreed to.*

OPA Position: Two of the nuclear units at Pickering A have already been refurbished. However, current information from OPG indicates that rather than refurbishing units at Pickering B they have decided to pursue the continued operation work, which may result in life extension to 2020.

C – *from a community member: The transformer station should be located somewhere else. Put it somewhere near Toronto on a cement pad.*

11. C – *John O'Toole: The reason we need this station is because we are closing Pickering. Pickering will not be closed in 2015; there is an under capacity of demand. We are looking at 10-12 years out and putting this into the timing, there is a swale in supply. All of the sequencing of what is done and what replaces it, there is a supply drop which is a significant challenge on the generation side. We will leave this on the floor.*

12. Q: *What is the rush? You came here two years ago and now you are admitting that there are changes in the supply of energy. There is a demand report issued by Hydro One in 2005. This area has capped out growth as a result of the Growth Plan. We have not been allocated enough jobs. The big users of energy are dying – reference made to the manufacturing sector. We are looking at a different equation and we have to have complete confidence that this is money well spent.*

OPA Position: You are absolutely right. The phasing out of Pickering by 2015 is not a certainty but by 2020, there is a high expectation that it will be gone. The concern was that the earliest it could be closed is 2015. However, you are right, the window is somewhere between 2015 and 2020. OPA must understand all of the risks and when OPA investigated this in conjunction with the IESO, both organizations determined that not having a facility in place for 2015 would result in too much risk. When Pickering closes, there will be 6 key generators that will no longer be available to serve the local area. When Pickering closes, the loss in generation capacity will have to be secured from other sources. Those other sources of electricity will flow from the 500 kV transmission system. The issue is how will the existing system accommodate that additional electricity flowing through the 500 / 230 kV transformers at Cherrywood. The primary concern is if

one of the 500 / 230 kV transformers at Cherrywood fails there is a very real probability that the existing three transformers would be substantially overloaded. To save the other transformers from damage would require having to reject 750 MW of electrical demand power in the east GTA. This 750 MW approximately equates to all the electricity demand of Pickering, Ajax, Whitby and Oshawa. A substantial number of customers would be without power for long periods and the risk from OPA's perspective and from the perspective of the IESO is too great. For these reasons, a new transformer station must be in operation for 2015.

13. Q: *What you are saying doesn't make logical sense. You had a failure at Cherrywood in 2005 and you were able to recover. You indicated in your comments that there was a failure at Cherrywood, how many times have there been failures at Cherrywood?. Perhaps this could be addressed in a separate meeting. If 25% of the electricity from Pickering is going to the east GTA, where is the balance of the electricity going? Is it fair to say there is a problem with the Cherrywood Station that would suggest it needs to be upgraded? Wouldn't Cherrywood be a more logical and strategic site location in terms of increasing your capacity? Would that not be a more strategic point to put it? Finally, do you have transformer station on site at Pickering? Why couldn't you build an independent structure in Pickering that would take out Cherrywood's function as a transformer station?*

OPA Position and Hydro One Position: The 2003 transformer failure at Cherrywood TS did not cause electricity supply problems because Pickering NGS was available to supply power to the local area in that situation. The concern we have is that when Pickering is no longer available there will be no back up source for failures of that nature. Hydro One has statistics that could be provided related to failure rates.

ACTION:	HYDRO ONE WILL PROVIDE FAILURE STATISTICS AT OUR NEXT PUBLIC INFORMATION CENTRE.
---------	--

The rate of failure is very low but the statistics can be provided because we have these for Cherrywood and for the other transformer stations. We have many transformer stations across the Province. The 500 / 230 kV transformers at Cherrywood can move power from the 500 kV system to the 230 kV or they can reverse direction and supply electrical energy from the 230 kV system to the 500 kV. They are designed to enable electricity to flow to where the power is needed. The failure at Cherrywood in 2003 resulted in an oil leak and small fire. The electricity system is examined and studied in detail by the OPA and IESO to monitor for reliability problems. The work is conducted by experts in the areas of power system planning and operations. These studies are complex and require specialized computational tools.

14. Q: *The impetus for the site is the closure of Pickering and the driving force is to have this done by 2015. Why does OPG's long-term planning include outages to 2020 and therefore why is there a great need since it takes 10-12 years to build this. This doesn't need to be done right away.*

OPA Position: The closure date is somewhere between 2015 and 2020. The earliest it could be completely phased out is 2015 and the consequence to supply reliability in the area is high because, as I said before, the transformers at Cherrywood would be overloaded for a single

failure. Based on the information we currently have, we cannot roll the dice and assume that Pickering will run until 2020. When we look at the risk, the consequence of reduced reliability to customers in East GTA is very high. The prudent thing to do is to have a transformer station in place by 2015 to ensure that the electrical service to such a large area is not interrupted for the single failure of a transmission system component. We are therefore looking at a 2015 date. However, if OPG provides information indicating that they have the necessary approvals to ensure a 2020 date, Hydro One could slow down the process. Hydro One could take its foot off the accelerator. This flexibility was requested in the letter that was sent to Hydro One from the OPA recommending the project. A copy of the letter is available and it does state that Hydro One could slow down when and if OPG gives the green light for a later phase out of Pickering NGS, by indicating that required approvals are in place.

## Power Related

15. Q: *Where does the power come from to service Cherrywood?*

A: Note – answer provided by the community member posing the question and said the site is serviced from Darlington.

16. Q: *So the power would come from Darlington and would come into Cherrywood, is that correct?*

Hydro One Position and OPA Position: Power is coming from a variety of locations. It is coming from Darlington, the Bruce and other generators in the Province. The 500 kV system connected to Cherrywood enables the delivery of bulk electrical energy from major generating stations across the Province.

17. Q: *Will there be more transmission lines coming to the site from Darlington? Are you going to pile down into the soil? How far down do you expect to go?*

Hydro One Position: One more 500kV line was planned for the future. Many of the footing would go down from about 8 – 13m.

18. Q: *There were 15 instances of breakdown and a significant breakdown that occurred on December 12, 2005. Is that because the site (Cherrywood TS) is not manned? There were elements of the breakdown that referenced spillage. Is the site manned around the clock?*

Hydro One Position: It (Cherrywood TS) is a manned station in that we have people working out of that location but it is not manned on a 24 hour 7 day a week basis. There are not people there all the time. The incidence of breakdown and failure is very low.

## Spill Response

19. Q: *Where is Cherrywood located? The mention the breakdown that took place in 2003, who lives around the Cherrywood site? If there is a fire and an oil leak what do I do? I just bought a property that will overlook this new transformer station.*

Hydro One Position: Cherrywood is adjacent to a residential area. The oil leak was in October 2003. One transformer failed during that incident and there was a leak and small fire. A small amount of transformer oil left the site and went into a watercourse nearby. All oil spilled off-site was recovered. There was no damage to the environment. The transformer oil is mineral oil. The Cherrywood site is about 100 acres in size.

20. C- *from a community member: We totally dispute your data. You are mistaken about what you said. The chemical product that is in the oil – it is not mineral oil. This is a document that I received 2 weeks ago which discusses the properties of transformer oil. It says you have to use protective equipment and protective gear when handling the oil. It speaks about a number of chemical properties in the oil. It also notes that there are many unknowns about the oil - vapour pressure, vapour density is not determined; melting and freezing is not determined; VOC is not determined. When you have a failure, the chemicals change into more volatile compounds. If you have an explosion on a transformer station, the chemicals will vaporize and be everywhere.*

C – from Hydro One: There are thousands of transformers everywhere and there is a detection system that is highly complex.

21. C – *from a community member: In 2005, the detection system failed. Anything manmade can fail. What it does is put the residents at risk in terms of water contamination. We cannot replace our water supply. This is the key issue. The best technology is still resulting in accidents happening but the risk of contamination is real and high.*

22. C – *John O’Toole: If you look at the entire energy supply for Ontario, there are 3 commitments: first, that all coal will close by 2015. Where will they get power from and there is no commitment on new building and the refurbishment at Darlington is 4 years per unit. There is a real depression in the supply side. Not one coal facility has been closed. There is a lot of stuff that constituents will be pressured with in the short term. I will raise this with Minister Bentley tomorrow and get a clarification of the political direction. The experts are concerned for the window of opportunity to replace this power. Wind doesn’t blow and solar doesn’t shine all the time. Where are the gas plants being built? They are all being built on the western side of the City. Just recently, they have refurbished the Bruce. Is this a 500 kv line? It has been brought to Toronto. There is a lot here and the way we consume energy and its peaks and balances. The way power is being steered around. There is an existing station that must be upgraded. We need to back the calendar up and allow for a more fulsome review by OPA and IESO. This plant is about \$300-400 million. I would like a copy of the OPA letter to Hydro One.*

Hydro One Position: The Bruce line is a 500 kV line. A copy of the letter from the OPA to Hydro One can and will be provided, no problem. Noted that a copy of the OPA letter has been provided to community members.

ACTION:	COPY OF THE LETTER FROM OPA TO HYDRO ONE TO BE PROVIDED TO JOHN O'TOOLE, MPP. COMPLETED BY HYDRO ONE.
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## Resident Concerns

23. Q: *There have been many studies. What are the positive or negative effects on property values? What plans do you have in place to address the potential negative effects on property values?*

Hydro One Position: Property values are most directly affected during the construction phase. There could be impacts at that time. As the project is built and finished, there are other factors that come into play but in my opinion, most of the impacts occur during construction.

24. C – *from a community member: We are being held hostage to our properties. Our retirement investment is in our house. We checked that we could build on our property and we also checked that this was Greenbelt and that it was part of the Moraine. We bought here on the understanding that this was a protected area and our investment would be protected. It was a real shock to get this. At this stage in our life, where do we go? How can we possibly sell our property with this right in our backyard? I am frustrated.*

25. C – *from a community member: People who purchased pieces of property would not know about this site. This needs to be disclosed.*

Hydro One Position: The site and configuration that you see now is in the Clarington Official Plan. It is designated as “utility” in the Official Plan.

26. Q: *Have all of you walked the site? Are you aware of the elevation here? Do you know how many wells you will dry up and how many veins of water you will destroy? Look at the situation that emerged in Milton. They are pumping water from the lake now.*

Hydro One Position: We have walked the site and we are aware of the elevation of the property. We are aware that it is on the Moraine.

27. Q: *If the well on my property is damaged will you fix it?*

Hydro One Position: We will test before, during and after construction. If there is any damage to wells, Hydro One will fix it.

28. C – *from a community member: I am concerned about vandalism on the Clarington site. This is a site that will not be manned. Vandalism is also a concern and an issue that needs to be addressed.*

## Other Comments

29. C – *from a community member: These issues take a lot of time; a lot of personal time. If I can offer you any advice, stay strong and stand together and don't get too frustrated. Ministry Of*



*Environment needs to take the protection of the environment strongly. If I can offer my assistance to you, I would be happy to.*

30. *C – from a community member: We like the words prevent, prohibit not mitigate which is a weasel word that means soften. There is the impression that Hydro One was intending all along to build a transformer station in Clarington and that you simply tried to pull the wool over our eyes. Your credibility is at stake here given the history of this site. I was told on the QT by a Hydro One staff person some time ago that big plans were in the works for Site A, which is the site we are currently concerned with. I want confirmation of exactly how long this project has been underway? How long has this been in the planning stages and was it not your intention to build this all along?*

OPA Position and Hydro One Position: This property was bought in 1978. The need for a transformer station at this location was included in the first Integrated Power System Plan (IPSP). This site was called Oshawa Area TS at the time because it didn't have a formal name at the time. That IPSP was issued in 2007 and it was sent to the Ontario Energy Board for formal approval. However, the IPSP process was suspended and the plan was therefore not subjected to a review by the OEB. The work by Hydro One has been underway since October of 2011 following the recommendation from the OPA. Hydro One did not have any plans for building the Clarington transformer station at the time when it presented the Enfield site to you. The needs have changed and the operating environment has changed. The better understanding of potential closure dates for Pickering requires a new transformer station to be built.

31. *C – from a community member: A petition has been prepared. Anyone who has not already signed the petition is asked to do so.*

32. *Q: Are you aware of the 2005 position of the Professional Engineers Association of Ontario and their conclusion relating to the need to reduce peak load so that additional transmission capacity would not be required? Can you speak to this?*

Hydro One Position: Yes, we am aware of the demand side management. The reference is to smart metres and the position is to use smart metres and promote a reduction in demand. This issue relates to the demand side of the electricity equation. We are dealing here with the supply side. Demand side management will not solve this problem.

## **Follow Up**

33. *C – from a community member: There are many issues that we have raised and we have not even had an opportunity to discuss alternative sites. We would request a focused meeting with Hydro One so that we can discuss the answers to our questions in more detail and also so that we can bring additional information forward. Will Hydro One commit to meeting with us separately?*

Hydro One Position: Hydro One often works with Advisory Committees and Community Panels. We would be happy to meet with you. In fact, we have expected to receive a number of alternative sites from you but to date we have not received that information. If you have suggestions for alternative sites, we would like to see that information. Yes, we can commit to meet with you.

ACTION:	CLINT COLE TO CONTACT DENISE JAMAL TO SET UP A SEPARATE MEETING WITH TECHNICAL STAFF TO REVIEW THE QUESTIONS, PROVIDE ANSWERS AND RECEIVE SUGGESTIONS FROM THE COMMUNITY REGARDING ALTERNATIVE SITES.
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34. Q: *There have been a lot of questions and a lot of answers provided, some good and some not so good. Are we going to get formal answers emailed to us?*

Hydro One Position: Yes, we can commit to providing you with a copy of the proceedings and also with a formal response to the questions that have been raised.

ACTION:	COPY OF MEETING PROCEEDINGS TO BE FORWARDED TO PARTICIPANTS. FORMAL RESPONSE TO QUESTIONS TO BE PROVIDED TO THE COMMUNITY BY HYDRO ONE.
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35. C –

Hydro One: Although the community would like to see this station built elsewhere, pending the necessary approvals, this site is Hydro One’s and OPA’s preferred location for the proposed Clarington TS. In this regard, Hydro One is requesting the community to provide us with your thoughts and input on how Hydro One could make this site and the station better for you and the community.

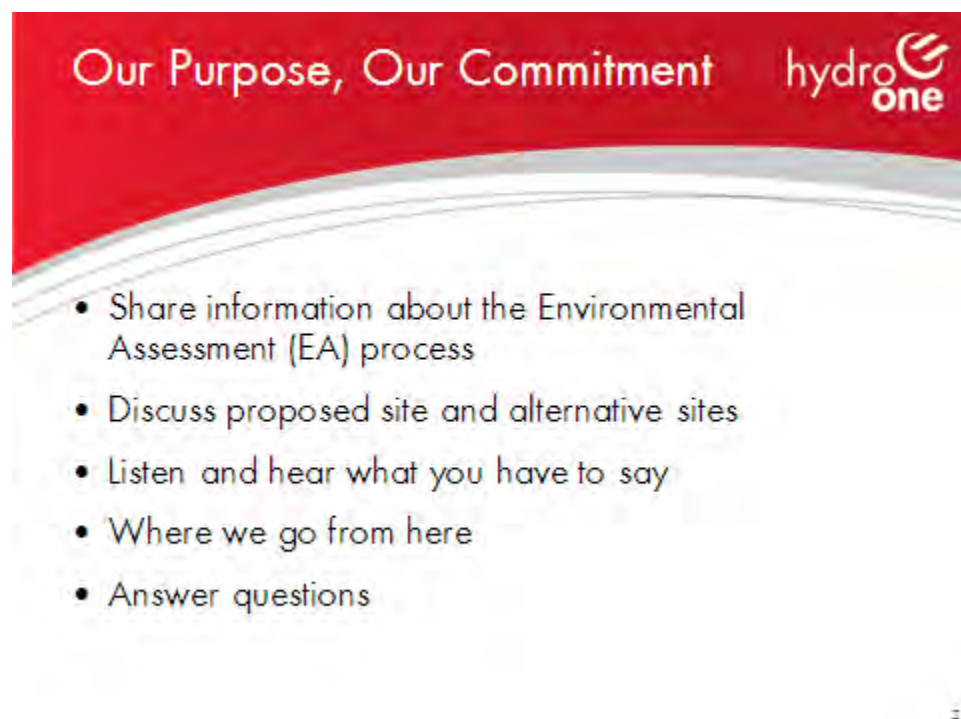
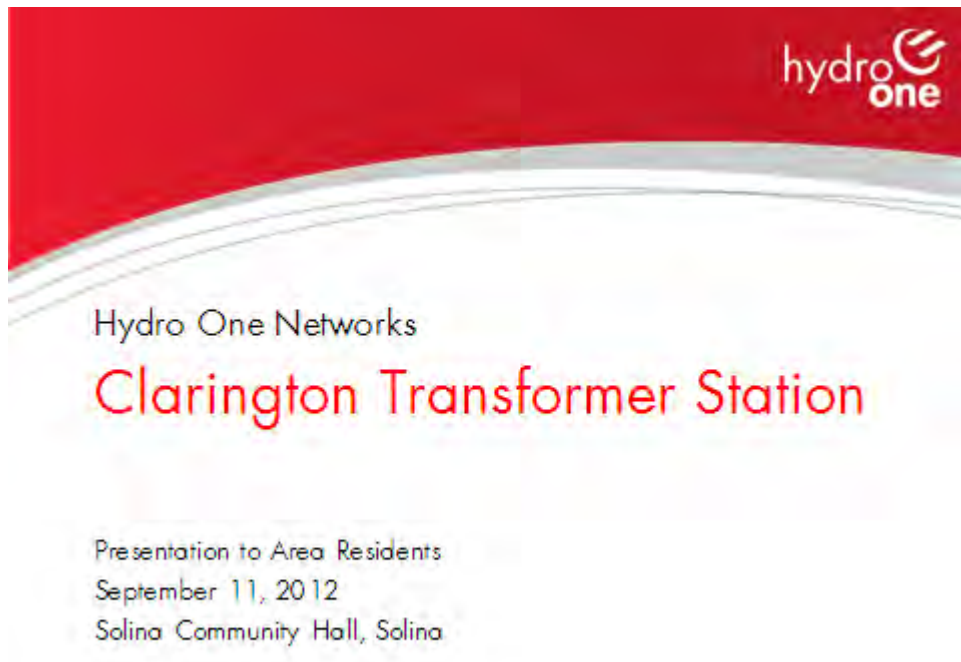
#### **4.0 Closing Remarks**

Karen took the opportunity to thank all in attendance for coming. She expressed her thanks to all for sharing their thoughts in a forthright and candid manner and expressed her thanks to all for raising these very important and very emotional issues in a respectful manner.

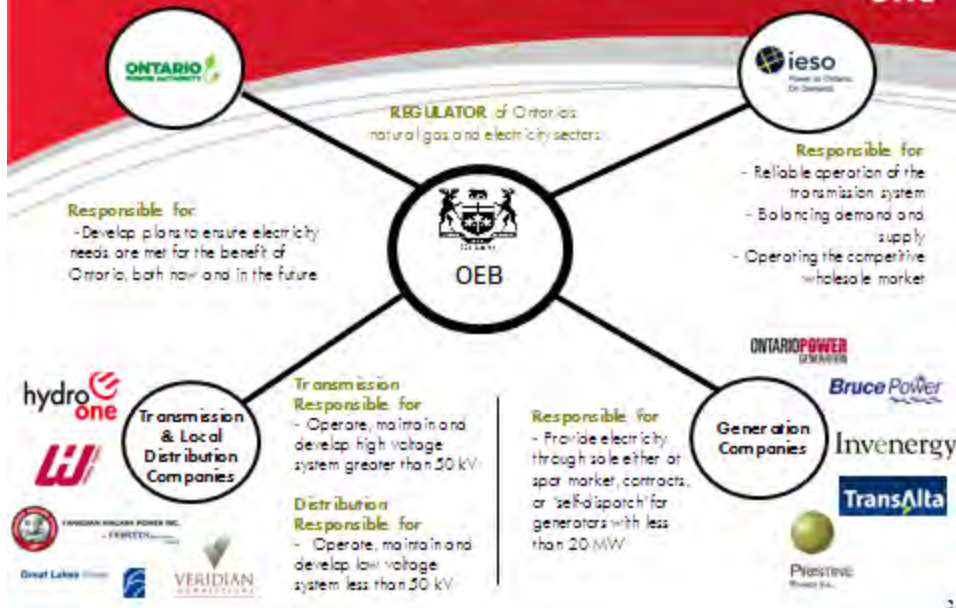
Karen noted that the proceedings from the session would be prepared and shared with the community. She referenced the comment forms again and the need to ensure participants sign the sign in sheet if they wish to be kept apprised of progress.

Meeting Concluded 9:30 pm.

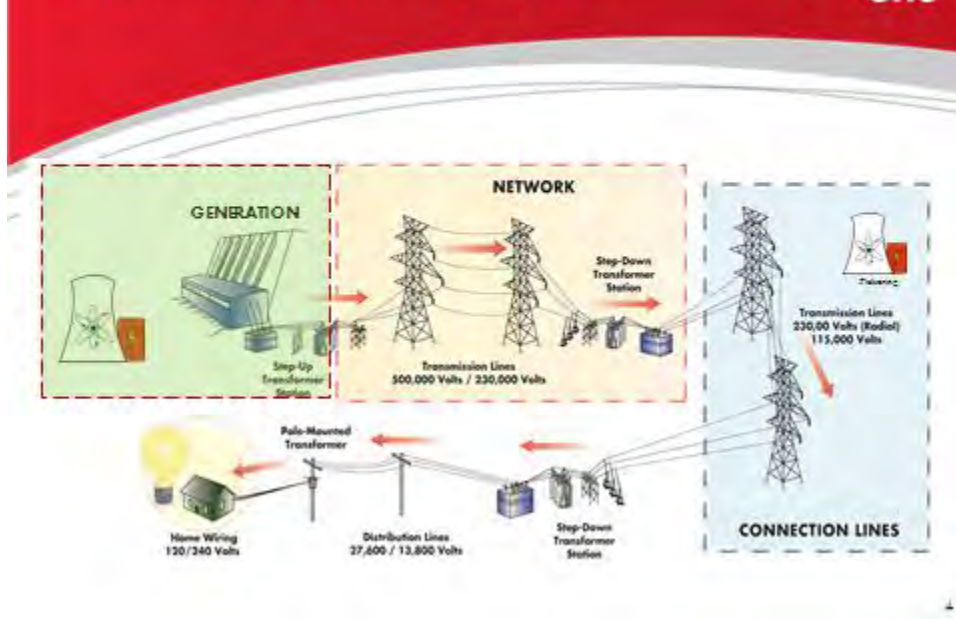
## Appendix A



# Electricity Industry Structure



# Ontario's Electricity System



## Class EA Process



- Hydro One follows the requirements set out in the *Class EA for Minor Transmission Facilities* under the *Environmental Assessment Act*, approved by the *Ministry of the Environment (MOE)*
- The Class EA process ensures that transmission projects with a predictable range of effects are carried out in an environmentally-acceptable manner and includes the following steps:
  - Consultation
  - Data collection
  - Draft Environmental Study Report for public review and comment
  - Resolve any outstanding issues. If dissatisfied with resolution, can write to the *Minister of the Environment* requesting a higher level assessment (Part II Order)
  - Final ESR filed with the MOE

5

## Clarington Transformer Station



- Clarington Transformer Station (TS) will bring electricity from the Transmission Network to the Connection Network
- Needed to address the eventual closure of Pickering Nuclear Generating Station (NGS)
- Pickering NGS supplies as much as 25% of the east GTA's electricity demand
- Clarington TS will not generate electricity, it will support existing demand
- Clarington TS is required to ensure continued safe and reliable electrical supply to existing and future customers in the east GTA

6

## Discuss Proposed Site And Alternative Sites



- Cherrywood TS
- Parkway TS
- Alternative Sites
- Why Clarington Site

## Next Steps



Public Information Centre #2	Fall 2012
Draft Environmental Study Report (ESR) Review Period	Fall 2012
Submit Final ESR to the Ministry of Environment	Winter 2012/13
Begin Construction	Spring 2013
Station In-service	Spring 2015

## Questions & Answers

- Tel: 1-877-345-6799 or 416-345-6799
- E-Mail: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)
- <http://www.hydroone.com/Projects>

## **Appendix B5: Public Information Centre #2**





**Hydro One Networks Inc.**

483 Bay Street  
TCT-6, South Tower  
Toronto, Ontario, M5G 2P5  
mccormick.bj@hydroone.com

Tel: 416-345-6597  
Fax: 416-345-6919  
Cell: 416-525-1051



**Brian McCormick**, Manager, Environmental Services and Approvals

November 1, 2012

Name and Address

**RE: Clarington Transformer Station Class Environmental Assessment – Public Information Centre #2**

Dear Chief/President/Consultation Coordinator:

As indicated through previous correspondence, and original notification dated April 8, 2012, Hydro One Networks Inc. (Hydro One) initiated a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario.

Hydro One recognizes the importance of consultation to the planning of the project. A second Public Information Centre (PIC) is scheduled for Thursday November 8, 2012 from 5:00 – 8:00 pm at the Solina Community Hall to provide those interested the opportunity to learn more about the project and discuss any issues or concerns with our project team. Please see the enclosed newspaper ad for details which will be featured in the *Oshawa/Clarington This Week*, the *Orono Times* and *Oshawa Express*.

In the interim, we welcome your comments and feedback on the Clarington TS project. We would be pleased to arrange a meeting to gather your input and discuss project details. Information and updates are also available on our project website at [www.HydroOne.com/projects/](http://www.HydroOne.com/projects/)

If you have any questions regarding this project please feel free to contact me at (416) 345-6597, or Laura Rynard, Environmental Planner at (416) 345-5811 or by email at [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com)

Sincerely,

A handwritten signature in blue ink, appearing to be "Brian McCormick".

Brian McCormick  
Manager, Environmental Services and Approvals

cc. Ian Jacobsen, Senior Manager, First Nations and Métis Relations  
Yu San Ong, Environmental Planner, Environmental Services and Approvals

Enc.

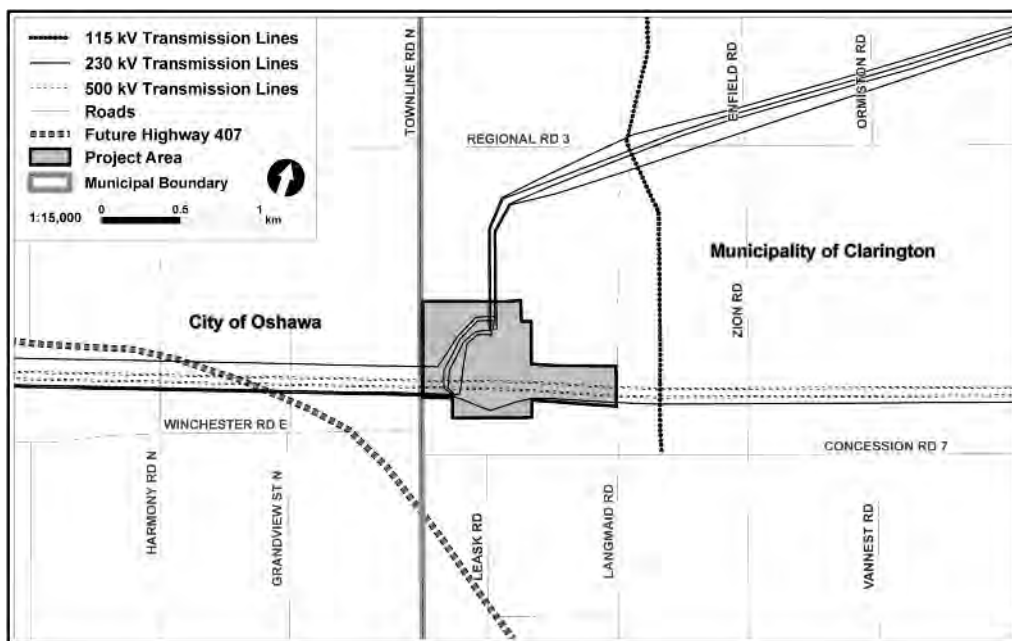
# Hydro One invites you to attend a Public Information Centre Class Environmental Assessment for Clarington Transformer Station

In May 2012, Hydro One Networks Inc. (Hydro One) initiated a Class Environmental Assessment to build a new transformer station in the Municipality of Clarington. The Ontario Power Authority (OPA) has recommended Hydro One build a new transformer facility on Hydro One's property as indicated on the map below. The station is required to ensure continued, safe and reliable power delivery in the east Greater Toronto Area (GTA).

The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering is the largest generation facility in the east GTA and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.

The proposed Clarington Transformer Station (TS) is required to accommodate the eventual closure of Pickering NGS, meet current demand and future electricity growth in the local area and ensure that the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend its operations until 2020, Hydro One must be prudent and continue with the Class Environmental Assessment (EA) process to ensure the station is ready to be in service as early as 2015. The OPA also recommends this course of action.



The Class EA is being carried out in accordance with the *Class Environmental Assessment for Minor Transmission Facilities* and approved under the provincial *Environmental Assessment Act*.

An important part of the Class EA process includes consultation. As such, we are hosting a second Public Information Centre on Thursday, November 8, to provide the community with information about the project, an opportunity to speak with our project team and to obtain feedback. The OPA will also be available to answer questions regarding the need and importance of this project.

#### Public Information Centre

Thursday, November 8, 2012

5 - 8:00 p.m.

Solina Community Hall

1964 Concession Road 6

Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations

Tel: 1 877 345-6799

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities

**Hydro One Networks Inc.**

483 Bay Street  
TCT-6, South Tower  
Toronto, Ontario, M5G 2P5

Tel: 416-345-5031  
Fax: 416-345-6919  
Email: yusan.ong@hydroone.com



**Yu San Ong**, Environmental Planner, Environmental Services and Approvals

November 1, 2012

Dear Sir or Madam:

**RE: Clarington Transformer Station Class Environmental Assessment –  
Second Public Information Centre**

In May 2012, Hydro One Networks Inc. (Hydro One) has initiated a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario.

The proposed Clarington TS is required to accommodate the eventual closure of Pickering Nuclear Generating Station (NGS), enable continued, safe and reliable power delivery in the east Greater Toronto Area.

The proposed project is subject to the provincial *Environmental Assessment Act* in accordance with the “Class EA for Minor Transmission Facilities”. Contingent on the outcome of the Class EA process, construction could begin in March 2013 with Clarington TS in-service by spring 2015. The Class EA will examine the potential effects of the proposed facilities and recommend mitigation measures. All mitigation and restoration activities will follow Hydro One’s policies and guidelines.

Hydro One recognizes the importance of consultation to the planning of the project. The second Public Information Centre (PIC) is scheduled for Thursday November 8, 2012 from 5:00 pm to 8:00 pm at the Solina Community Hall to provide interested parties with information about the project, an opportunity to speak with our project team and to obtain feedback. Please see the enclosed newspaper ad for details.

Shortly after the PIC #2, the draft Environmental Study Report (ESR) will be issued for a period of 30 days for public and agency review. The final project notification including details on how to participate during the draft ESR Review Period will be provided to you.

Information and updates are also available on our website at [www.HydroOne.com/Projects/Clarington](http://www.HydroOne.com/Projects/Clarington)

If you have any questions regarding this project please feel free to contact me at (416) 345-5031, or Laura Rynard, Environmental Planner at (416) 345-5811 or by email at [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com)

Sincerely,

Yu San Ong  
Environmental Planner, Environmental Services and Approvals

Enc.

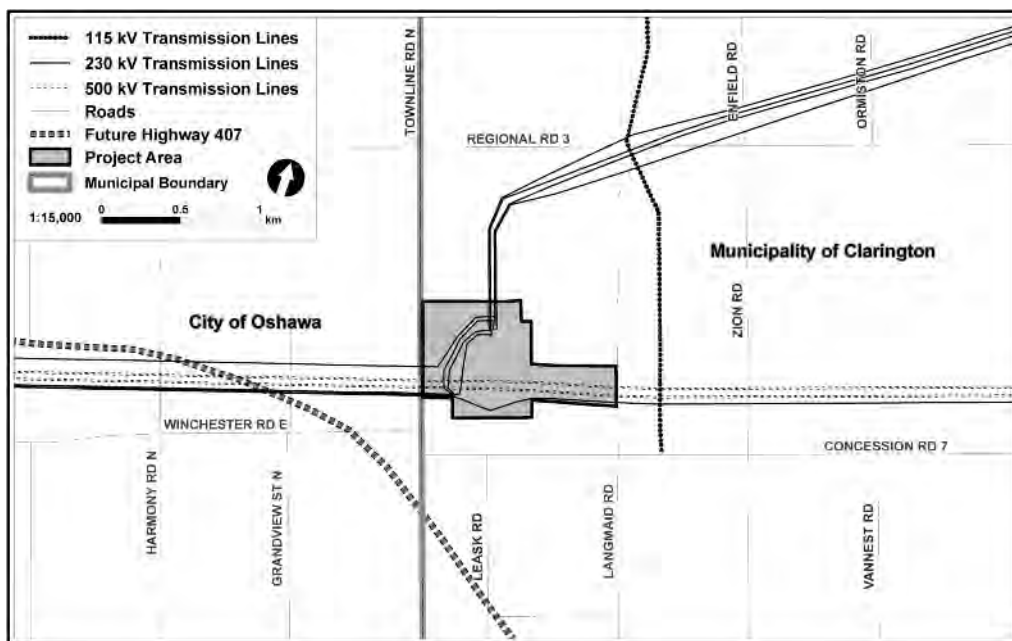
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#### Public Information Centre

Thursday, November 8, 2012  
5 - 8:00 p.m.  
Solina Community Hall  
1964 Concession Road 6  
Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations  
Tel: 1 877 345-6799  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities



## **COMMUNITY INFORMATION MEETING Clarington Transformer Station**

Dear Neighbours,

Hydro One held a Public Information Centre on May 23, 2012 in Solina to discuss the proposed Transformer Station (TS) located in the Municipality of Clarington.

Clarington TS would occupy approximately 30 hectares of Hydro One-owned property, west of Langmaid Road and north of Concession Road 7. The station would include four transformers that would convert energy from the adjacent 500 kilovolt (kV) transmission lines to 230 kV, which would then be supplied to local distribution companies for end-use customers.

Residents may recall that Hydro One received Class Environmental Assessment approval in 2008 to build a transformer station (Enfield TS) on the same property to supply the local area. Enfield TS is not required at this time because electricity demand in the area is growing slower than anticipated. Clarington TS is a separate project from the approved Enfield TS, and will serve the electricity supply needs of the east Greater Toronto Area (GTA). When Enfield TS is required, it will be built within the Clarington TS site.

Clarington TS is being planned in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, approved under the *Environmental Assessment Act*. Hydro One will review and consider all public comments within the context of the planning and consultation process outlined in the *Class Environmental Assessment for Minor Transmission Facilities*.

Hydro One takes its responsibility to respect the local environment seriously. We are required to undertake an Environmental Assessment (EA) for this project and will consult throughout the EA process with the Central Lake Ontario Conservation Authority, government agencies (e.g., Ontario Ministry of Natural Resources and Ministry of the Environment), municipalities, First Nations and Métis communities, and individual stakeholders to identify potential effects and determine appropriate mitigation measures to minimize the effects of this project on the natural and socio-economic environment.

To answer any questions you may have about the proposed project and to best address community concerns, Hydro One is holding an additional meeting (see attached ad) in Solina. We look forward to meeting face to face to obtain project feedback, listen to and address community issues and provide important project updates.

**Please join us on: Tuesday, September 11, 2012  
6:30 p.m. – 8:30 p.m., presentation at 7:00 p.m.  
Solina Community Hall  
1964 Concession Road 6, Solina**



Residents who were unable to attend the first Public Information Centre will have the opportunity to review the same maps and displays and hear directly from the project team. The meeting will be moderated by an independent facilitator to make best use of the available time and to ensure comments and questions are captured.

If you are unable to attend the meeting, please refer to the project information on Hydro One's website: [www.HydroOne.com/projects](http://www.HydroOne.com/projects). We will be pleased to receive your input and questions at any time.

### **Hydro One Community Relations**

Tel: 1-877-345-6799

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com).

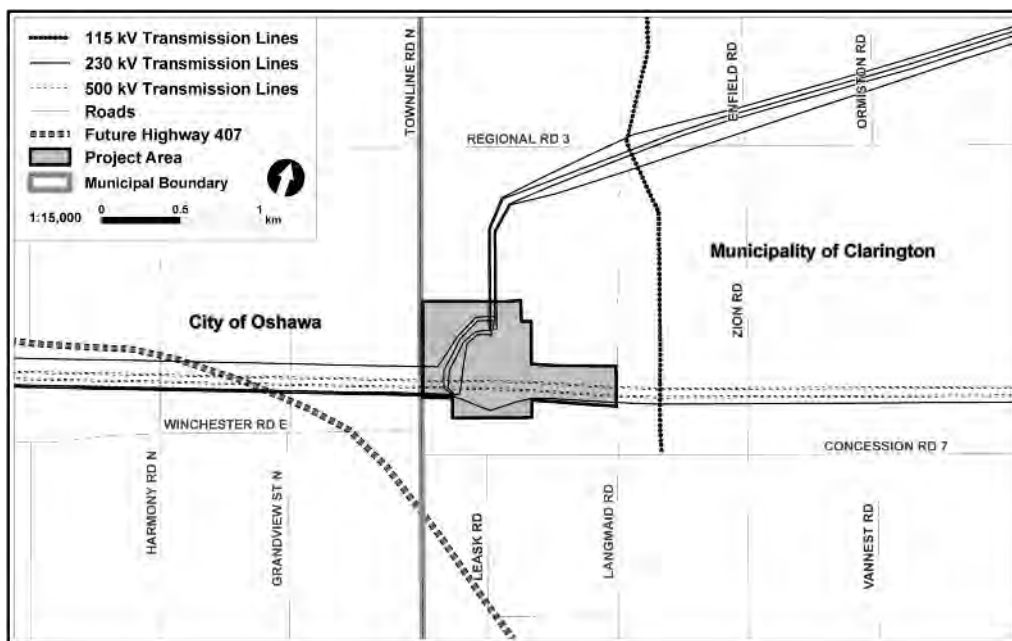
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#### Public Information Centre

Thursday, November 8, 2012

5 - 8:00 p.m.

Solina Community Hall

1964 Concession Road 6

Solina

#### For information contact:

Denise Jamal, Hydro One Community Relations

Tel: 1 877 345-6799

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Website: [www.HydroOne.com/Projects](http://www.HydroOne.com/Projects)



Partners in Powerful Communities



**COMMENT FORM**  
**Clarington Transformer Station**  
Public Information Centre #2  
November 8, Solina Community Hall

**Thank you** for attending Hydro One’s Public Information Centre (PIC). Please take a moment to answer a few questions. Please note your comments and/or questions about the PIC and the information presented.

1. Did you find the PIC helpful in understanding the proposed transformer station in your neighbourhood?      Yes / No
2. Did you have an adequate opportunity to express your views to Hydro One’s project team?  
Yes / No
3. Do you have any particular comments, questions, or concerns regarding this project?  
(Additional space on reverse)

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Please provide your contact information so that we may follow-up with you on your comments and/or questions, and add you to our project contact list for future communications.

Name: \_\_\_\_\_

Mailing Address & Postal Code: \_\_\_\_\_

Tel: \_\_\_\_\_ Email: \_\_\_\_\_

**Please leave your comment form in the comment box at this meeting or send it to:**

Denise Jamal, Hydro One Networks Inc.  
483 Bay Street, 8<sup>th</sup> Floor, South Tower, Toronto, ON M5G 2P5  
Tel. 1-877-345-6799; Fax: 416-345-6984; Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

*Please be advised that any of your personal information contained on this comment form will become part of the public record files for this project, and may be released, if requested, to any person, unless you state on this form that you do not consent to your personal information becoming part of the public record files and disclosed to any person upon request.*

(Additional comment space on reverse)





# Clarington TS Questions and Answers

## **Why is this station needed?**

The Ontario Power Authority (OPA) has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and could be retired as early as 2015. Pickering NGS is one of the largest generation facilities in the Greater Toronto Area (GTA), and supplies over 25 per cent of the GTA's peak electricity demand through the 230 kilovolt (kV) system. When the generating station is removed from service, its 3,000 MW of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system. This supply can only be provided through the 500 kV system with the current network configuration. Failing to offset this generation loss with transmission capability would have an immediate and significant supply reliability impact to the east GTA as a whole including Durham. Clarington Transformer Station (TS) is not a generation facility but a transmission facility from other sources of generation once Pickering NGS is retired.

Consequently, the OPA has recommended that Hydro One develop an implementation plan and initiate the necessary work to build a new transmission facility in the Municipality of Clarington to ensure continued, safe and reliable power delivery in the GTA.

## **Why has Hydro One selected this property to build this station?**

Following recommendations from the Ministry of Energy that came out of the public inquiry "Report of the Solandt Commission" in 1975<sup>1</sup> Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that "the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities."

This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirement, is located where the 500 kV lines and 230 kV lines meet and it is already owned by Hydro One.

## **Why is the Clarington TS project not subject to an Individual Environmental Assessment?**

The proposed Clarington TS project, a 500/230 kV TS, falls within the criteria defined in the *Class Environmental Assessment for Minor Transmission Facilities* (1992, Ontario Hydro) (Class EA), which was approved by the Ministry of the Environment under the *Environmental Assessment Act*.

Projects that are defined within the Class EA occur frequently, have a predictable range of effects and may be assessed using a common planning practice. These projects have potential environmental effects that can likely be mitigated.

Projects that are subject to an Individual EA are typically for large scale, complex projects with known significant environmental effects. The *Environmental Assessment Act* has provisions that allow for concerned parties to request a higher level of assessment for a Class EA process if they feel that outstanding issues have not been adequately addressed. This request for a higher level of assessment is referred to as a Part II Order request, which can be submitted in writing to the Minister of the Environment during the 30 day review period of the draft Environmental Study Report (ESR).

## **Can Hydro One's timeline be reconsidered?**

Pickering NGS is expected to be retired between 2015 and 2020. The OPA has recommended that the proposed Clarington TS be in-service by spring 2015 to ensure supply reliability. Hydro One has a responsibility to all energy consumers in the Province to ensure that there is a safe, reliable and continued

<sup>1</sup> Report of the Solandt Commission "Transmission" A Public Inquiry into the transmission of Power between Lennox and Oshawa (1975)

power supply. In order to ensure that the necessary facilities are in place at the time of Pickering NGS' retirement, Hydro One must be prudent and work towards a 2015 in-service date for the station.

### **Why were Clarington TS project details not shared during the Enfield TS Environmental Assessment process?**

When Hydro One began the Class EA process for Enfield TS project, the need was to increase capacity to homes and businesses in the local area. After the economic downturn, this need was no longer a priority. At the time of the Enfield TS EA process, details surrounding the closure of Pickering NGS were not known and Hydro One had not received direction from the OPA to build a TS.

Clarington TS is required to ensure that Ontario's supply reliability is not in jeopardy following the closure of Pickering NGS. If energy consumption in the general Clarington area was to increase, Enfield TS would once again be required. Hydro One has adequate space at the Clarington TS site to construct the approved Enfield TS, should it be required in the future.

### **How will you ensure the integrity of the Oak Ridges Moraine is not compromised during building?**

Hydro One has undertaken a number of field studies for the purposes of evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed accepted protocols. Results of the inventories and assessment have or are in the process of being submitted to the pertinent review agencies to ensure we have covered all of their interests and that we comply with all of their requirements. Depending upon the nature of the resource and the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring.

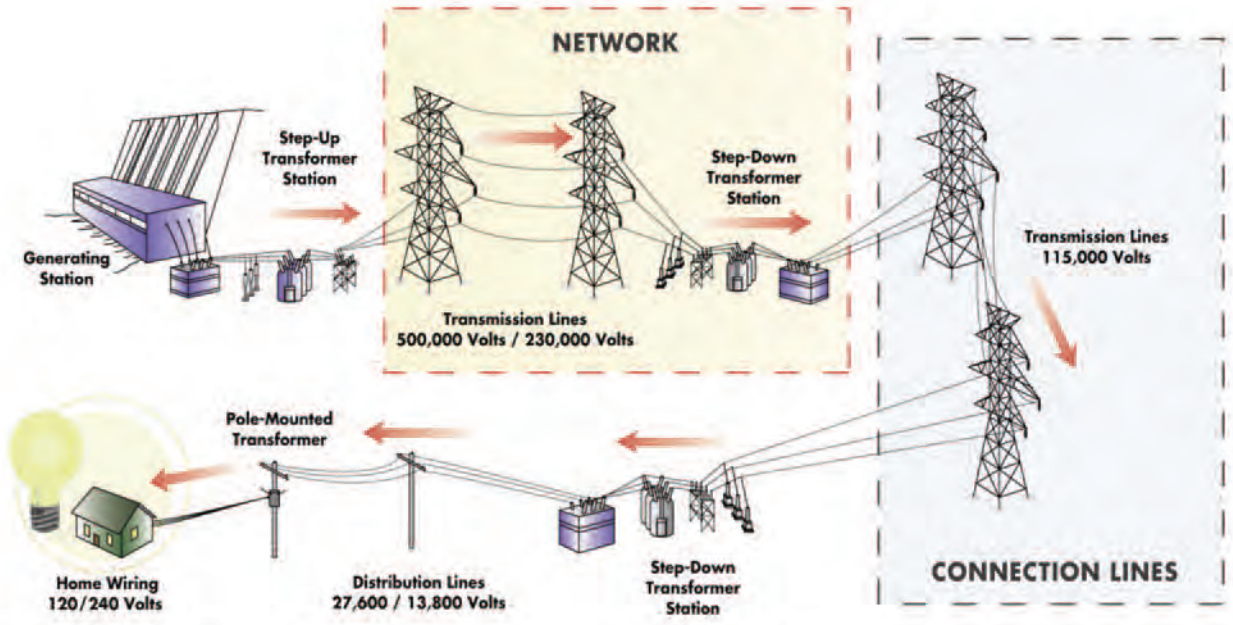
Hydro One does not believe that the proposed project will have any effect on the wells in the community or to those in North Oshawa. We have constructed transmission facilities throughout the Province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to landowners adjacent to the property to have their well water tested and to undertake a draw down test. The well water testing would be conducted prior to, during and after construction for comparison purposes. Draw down tests would need to be done prior to construction and post construction if required. All work would be done by a third party who will collect, summarize and provide the results. These results will be distributed to Hydro One and the individual owner. If a well is adversely affected, Hydro One is committed to fixing the issue.

### **What does Hydro One do to ensure the safety at the site?**

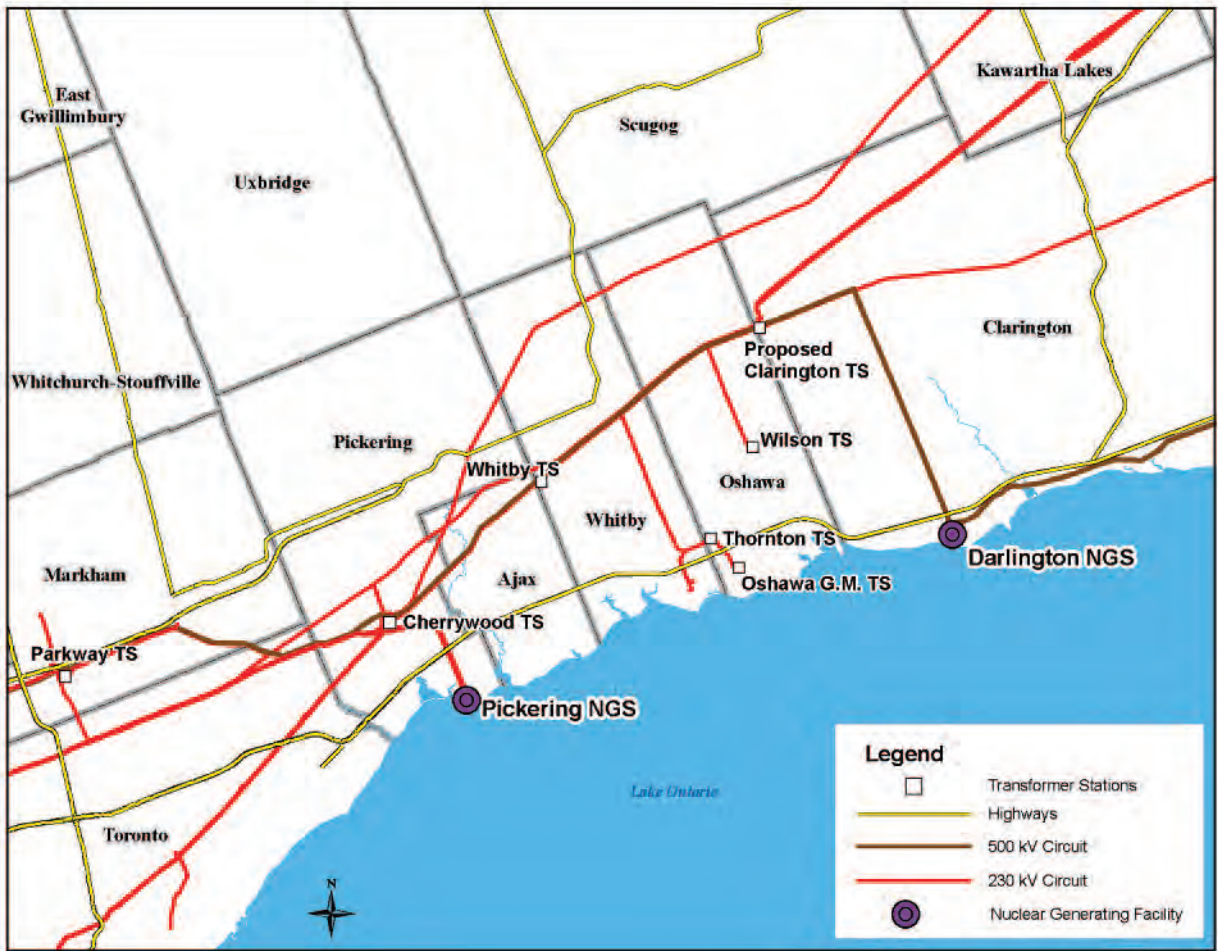
Hydro One conducts regular maintenance at the station to ensure the safe operation of all equipment. Should a spill occur, these transformers are designed with an oil loss control system that is automatic, reliable, and secure. The system is designed so that if there is a loss of oil, it will be captured first by the transformer self-containment system, and if needed captured and stored in precast concrete holding tanks. If there is a spill, meaning a loss of oil outside of these systems, Hydro One has an emergency spill containment procedure. All of these systems have been approved by the Ministry of the Environment.

# **Welcome to our Public Information Centre**

# Electricity Flow Diagram



# Hydro One Transmission System in East GTA



Map 2-02, Clarington TS, opt. v.2

## Key Organizations



- **Hydro One Networks Inc.** builds, owns, operates and maintains transmission and distribution facilities across the province of Ontario



- The **Ontario Power Authority (OPA)** develops plans to ensure electricity needs are met for the benefit of Ontario both now and in the future



- **Ontario Power Generation (OPG)** is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario

# Need for New Transmission Facilities in GTA, including Durham Region

- OPG's Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 – 2020
- Pickering NGS currently supplies the GTA (including Durham Region) with more than 25 per cent of its peak electricity demand
- When Pickering NGS is removed from service, its 3,000 megawatts\* of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system
- The OPA has recommended that Hydro One build a new transformer station in the east GTA to ensure there is an adequate connection to the power supply and improved reliability for the Pickering, Ajax, Whitby, Oshawa and Clarington areas
- The proposed station, **Clarington Transformer Station (TS)** will enable power flow from the 500 kV network to the 230 kV network to offset the loss of 3,000 MW of supply lost from Pickering NGS' output

\*1 MW is the equivalent of approximately 250 average residential users



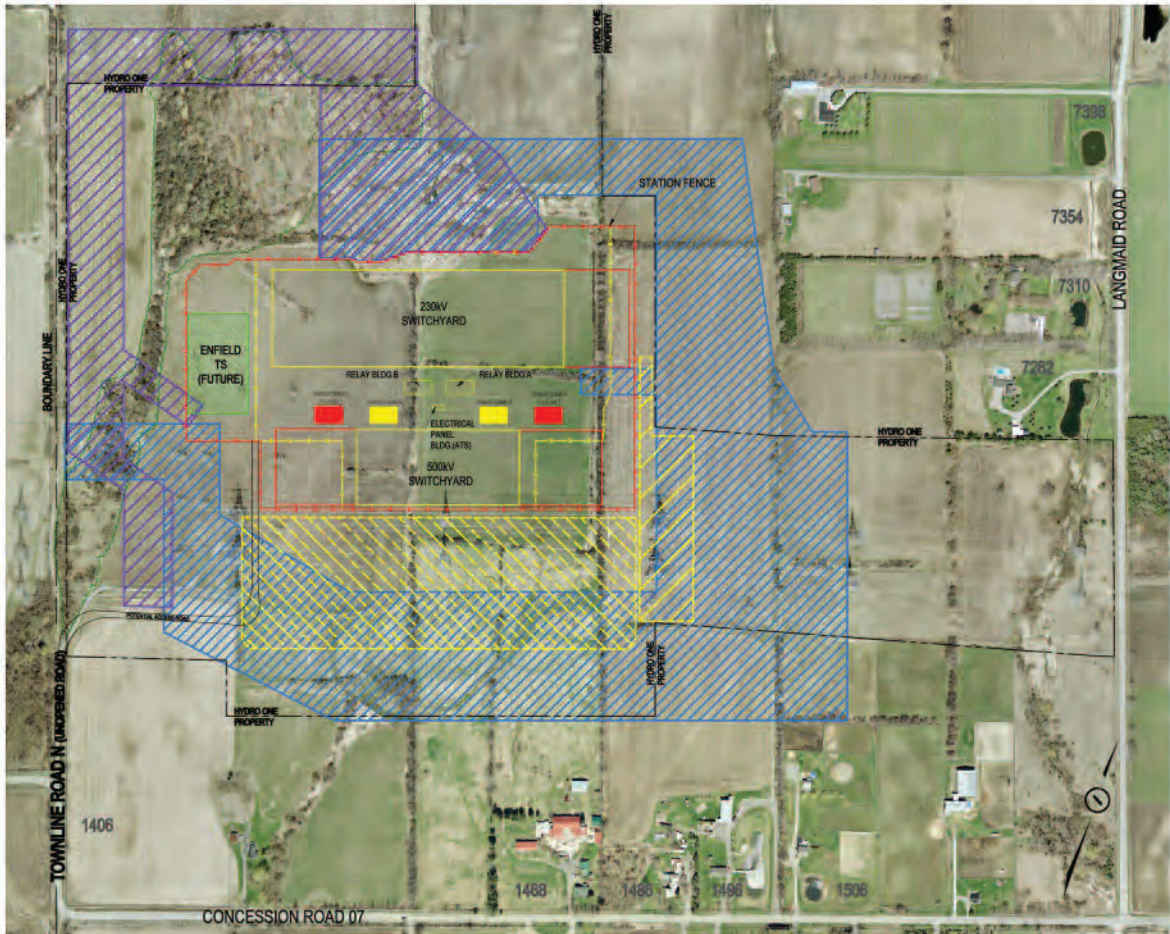
## Options Investigated

- 1) Do Nothing: without offsetting the 3,000 MW from Pickering NGS, overloading could occur at Cherrywood TS, which would necessitate significant load shedding (ie, power interruptions for area customers)
- 2) Expand existing stations by installing two additional transformers:
  - Cherrywood TS – Technically not feasible due to station equipment limitations
  - Parkway TS – does not have adequate 230 kV line connections to provide the required support to the 230 kV system
  - Both these options do not meet the long-term supply and reliability needs for east GTA
- 3) Other greenfield sites: not cost-effective and not consistent with the Provincial Policy Statement (2005) of using existing infrastructure corridors before exploring greenfield sites

## **Station Location Rationale**

- Site is owned by Hydro One, eliminating the need to acquire land rights for the proposed station
- Site was expropriated in 1978, with the foresight to build a station to handle future electrical needs
- Site is where the existing 500 kV and 230 kV lines cross, eliminating the need to acquire land rights for new lines
- Site provides adequate space, meets technical requirements and is the most cost-effective option
- Consistent with the Provincial Policy Statement (2005)
- Permitted use under Oak Ridges Moraine Conservation Plan, Greenbelt Plan, Durham Region Official Plan and Municipality of Clarington Official Plan
- Designated land use as “utility” in Clarington Official Plan (2007)

# Alternative Line Work Locations



**CLARINGTON TS  
CONCEPTUAL LAYOUT  
ALTERNATIVE LINework AREAS**

LEGEND	
	FENCE - INITIAL STAGE
	FENCE - FUTURE STAGE
	WOODLAND AREA
	200 kV LINE WORK AREA
	500 kV LINE WORK AREA
	STATION SWITCHYARD AREA - INITIAL STAGE
	STATION SWITCHYARD AREA - FUTURE STAGE
	ALTERNATIVE LINework AREA - OPTION 2
	ALTERNATIVE LINework AREA - OPTION 3



Clarington TS will also require new tower structures to connect the station to the neighbouring transmission lines. Hydro One examined three alternatives and based on natural environment, socio-economic, technical and cost considerations, selected alternative 1.

# Proposed Station Layout



**CLARINGTON TS  
CONCEPTUAL LAYOUT**



# Residents' Proposed Site Locations

Hydro One investigated sites proposed by Clarington area residents and concluded that these sites were not viable due to technical and cost considerations.

## Pickering NGS

- Requires configuration changes at Cherrywood TS
- Unacceptable short circuit levels at Cherrywood TS would result in safety and equipment failure risks
- Requires 7 km of new 500 kV lines to connect the transformer station to Cherrywood TS
- Requires 17 km of new 230 kV transmission lines to connect Cherrywood TS to areas to the east
- Requires Section 92 approval from Ontario Energy Board (OEB)
- Requires new land rights
- Pickering NGS cannot be operating concurrently during construction of the transformer station

# Residents' Proposed Site Locations

*(continued)*

## **Darlington NGS**

- Requires 25 km of new 230 kV lines to connect the transformer station to the closest transmission lines
- Requires Section 92 approval from OEB
- Darlington Nuclear Generating Station cannot be operating concurrently during construction of the transformer station
- Land acquisition would be required from OPG

## **Wesleyville GS**

- Requires 25 km of new 230 kV lines to connect the transformer station to the closest transmission lines
- Requires Section 92 approval from OEB
- New corridor would require new land rights
- Land acquisition would be required from OPG

# Residents' Proposed Site Locations

*(continued)*

## **Whitby TS and surrounding area**

- Property is not large enough to accommodate the station, the required four new 500 kV and 10 new 230 kV transmission lines
- Requires 7 km of new 230 kV transmission lines to connect Whitby TS to areas to the east
- Requires Section 92 approval from OEB
- Extensive land acquisition would be required from multiple property owners

## **Seaton lands and other sites near Cherrywood TS**

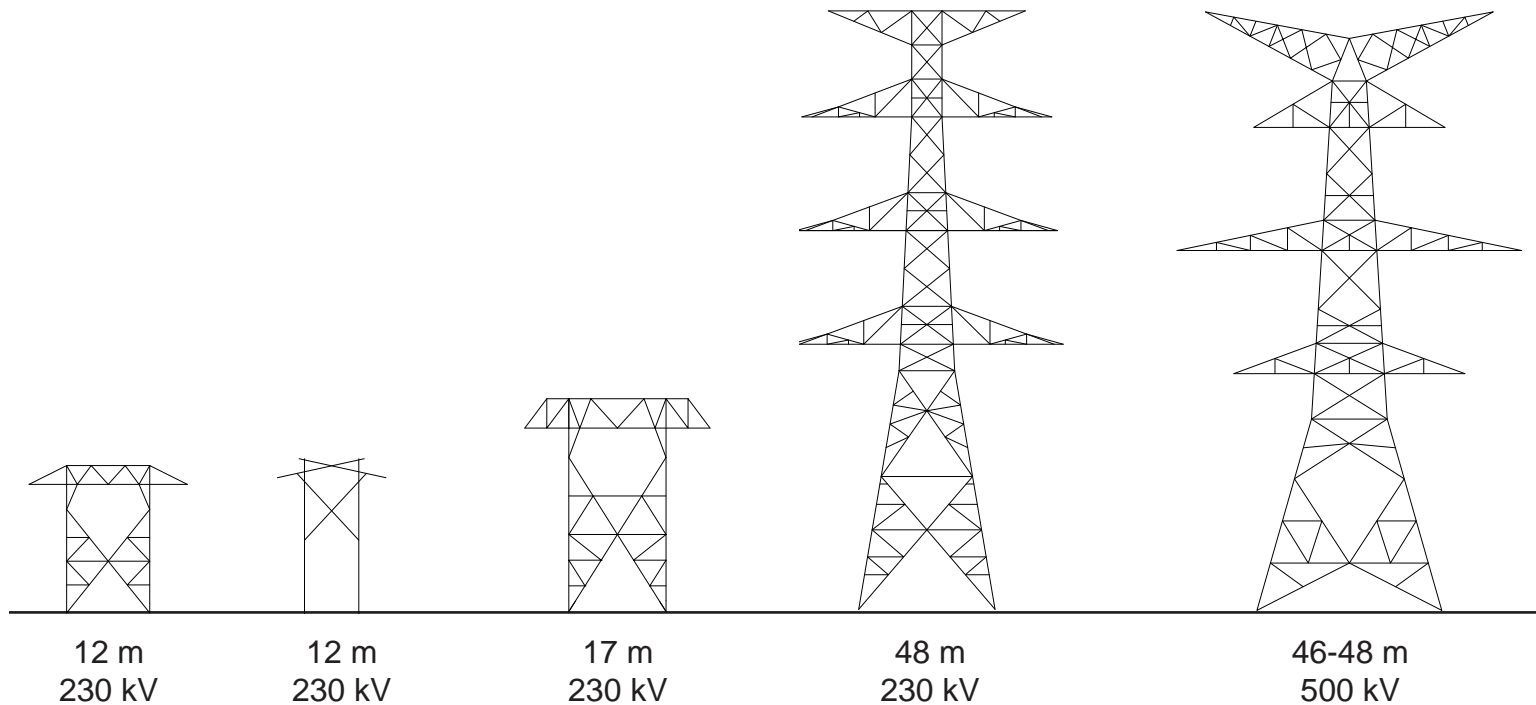
- Requires integration into the Cherrywood TS system
- Requires 17 km of new 230 kV lines to connect Cherrywood TS to areas in the east
- Requires Section 92 approval from OEB
- Integration at Cherrywood TS would result in unacceptable short circuit levels resulting in safety and equipment failure risks
- New 230 kV corridor would require new land rights

# Features of the Clarington TS Project

- The station will include two 500/230 kV transformers, appropriate fencing, access road, lightning protection, grounding, storm water management and spill containment systems
- Three buildings that will house protection and control equipment
- Necessary switchgear including 500 kV and 230 kV breakers
- New towers would be installed to connect the existing 500 kV and 230 kV lines to the proposed station and associated 500 kV and 230 kV lines connecting to the station
- Clarington TS will have sufficient space to accommodate two additional 500/230 kV transformers and associated facilities when required within Hydro One's property
- Enfield TS (approved 2008) can be installed within the Clarington TS site if required by local demand

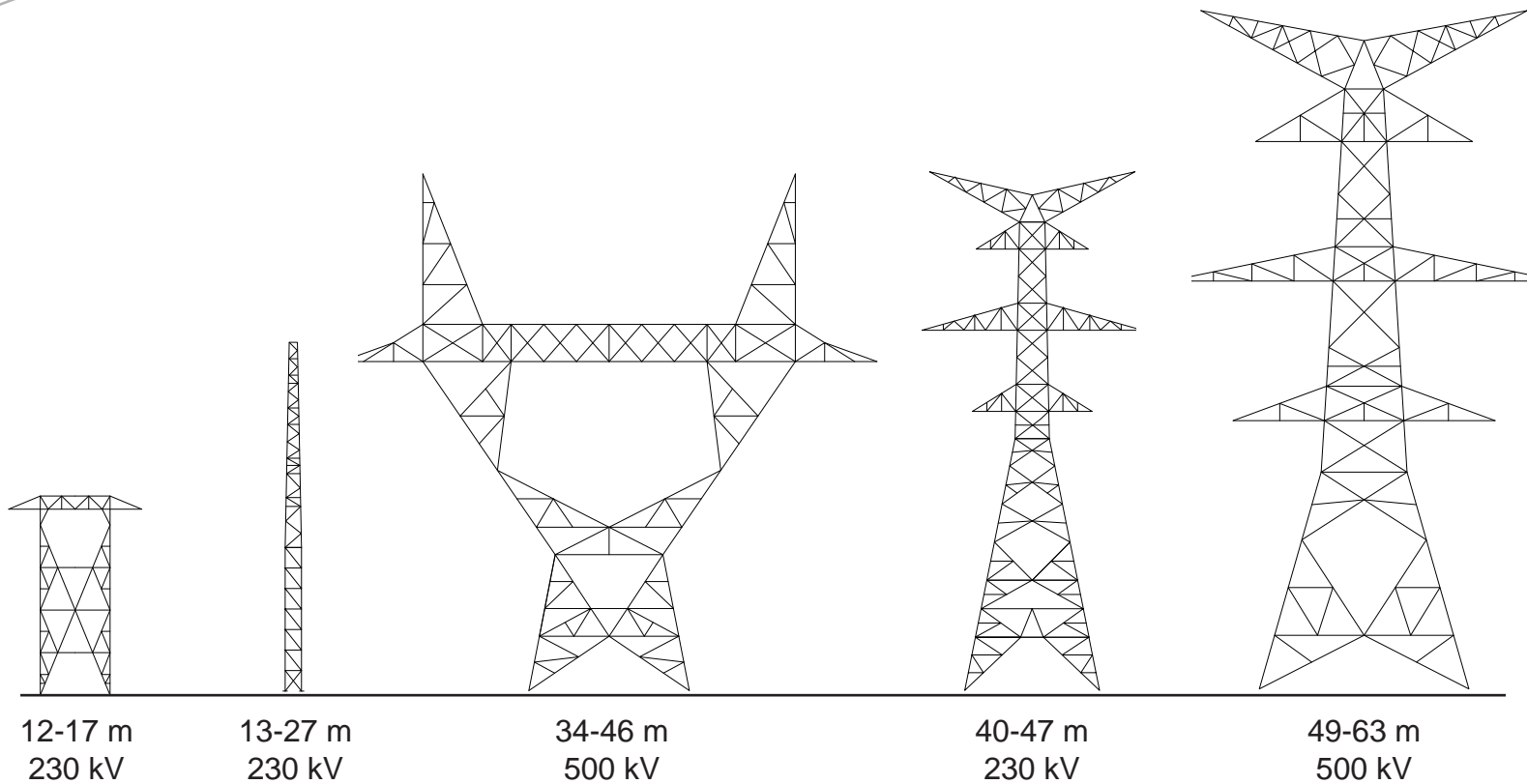


# Existing Typical Structure Types



\*Note: pictures are not drawn to scale and heights are approximate

# Proposed Typical Structure Types



\*Note: pictures are not drawn to scale and heights are approximate

# Environmental Planning Process

During project planning and design, Hydro One will identify potential project effects related to:

- Property owners in the vicinity of the project area
- Existing land uses and infrastructure
- Community recreational resources
- Built heritage resources
- Archaeological resources
- Cultural heritage landscape (including visual resources)
- Natural heritage features of Oak Ridges Moraine and Green Belt protected areas
- Biodiversity and habitat
- Environmentally significant areas
- Storm water management

# Environmental Mitigation Measures

Measures to prevent or mitigate potentially adverse environmental effects during design, construction and operation include:

- Work with adjacent land owners to minimize effects
- Vegetative restoration to mitigate for loss of woodland
- Vegetation clearing outside of migratory bird breeding season
- Protection of cultural heritage resources
- Assessment of visual appearance of station and provide vegetative screening around the property
- Assessments of claims for crop losses during construction
- Adherence to erosion and sediment plan
- Control of noise, mud, dust, traffic disturbances and other construction effects
- Environmental management during construction and operation

# Approval Requirements

## **Ontario Environmental Assessment Act**

- These facilities are subject to provincial *Environmental Assessment Act* approval in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, as a precursor to any other separate approvals

## **Other**

- Hydro One will meet all other legislative and permitting requirements

## Class EA Process

- In 1978, a *Class EA for Minor Transmission Facilities* was developed and approved by the Ontario Ministry of the Environment (MOE) and implemented by Ontario Hydro (now Hydro One). The Class EA was updated in 1992.
- The Class EA process is an effective way of ensuring that minor transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner
- Following the consultation process, a draft Environmental Study Report (ESR) will be available for public, First Nation and Métis communities, and stakeholder review and comment

## **Class EA Process**

*(continued)*

- If no concerns are expressed during the review period, the project is considered acceptable. Hydro One will file the final ESR with the Ontario Ministry of the Environment
- If concerns are expressed during the review period, Hydro One will attempt to resolve them in order to complete the Class EA process
- If stakeholders are dissatisfied with the process or Hydro One's project recommendations, a higher level of assessment referred to as a Part II Order can be requested by writing to the Minister of the Environment

# Electric and Magnetic Fields

- EMFs are invisible forces that surround electrical equipment, power cords and power lines. You cannot see or feel EMFs.
- Every time you use electricity and electrical appliances, you are exposed to EMFs at extremely low frequencies. EMFs produced by both power lines and use of electrical appliances, belong in this category.
- EMFs are strongest when close to the source. As you move away from the source, the strength of the fields fades rapidly.
- EMF levels are not expected to change as a result of the station.



# Health Canada's Position on EMFs

- There is no compelling scientific evidence that EMF in living and school environments, regardless of locations from power transmission lines, cause ill health such as cancer. This position is consistent with the overall opinions from most national and international scientific bodies.
- Health Canada does not consider guidelines for EMF exposure necessary, because scientific evidence is not strong enough to conclude that typical exposures cause problems.

*Source: Health Canada submission to the British Columbia Environmental Assessment Office on the Vancouver Island Transmission Reinforcement Project; 2006. [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)*

## Next Steps

Public Information Centre #2	November 2012
30 Day Draft ESR Review Period	Mid-November to Mid-December 2012
File Final ESR with Ministry of the Environment	January 2013
Begin Construction	March 2013
Station In-service	Spring 2015

# **Your Input is Important to Us**

Thank you for attending our Public Information Centre

Please fill out a comment form before you leave,  
or send us your comments afterward

## **For project information, please contact us at:**

Website: [www.HydroOne.com/projects/clarington](http://www.HydroOne.com/projects/clarington)

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Information Line: 1-877-345-6799

Fax: 416-345-6984

## **Appendix B6: Final Notification**



**Hydro One Networks Inc.**

483 Bay Street  
TCT-6, South Tower  
Toronto, Ontario, M5G 2P5  
mccormick.bj@hydroone.com

Tel: 416-345-6597  
Fax: 416-345-6919  
Cell: 416-525-1051



**Brian McCormick**, Manager, Environmental Services and Approvals

November 13, 2012

Name and Address

**RE: Clarington Transformer Station Class Environmental Assessment – Notice of Completion and Draft 30-day review period**

Dear Chief/President/Consultation Coordinator

As indicated through previous correspondence, and original notification dated April 8, 2012, Hydro One Networks Inc. (Hydro One) initiated a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the municipality of Clarington, Ontario.

The draft Environmental Study Report (ESR) of the Clarington TS is now complete and is available for review and comment. For your information, please find enclosed a copy of the draft ESR.

The draft ESR will be available for a 30 day review and comment period starting Thursday, November 15, 2012, until end of day Monday, December 17, 2012. The draft ESR can also be downloaded from the project website at [www.HydroOne.com/projects](http://www.HydroOne.com/projects)

Hard copies of the report will also be available at the following locations:

<b>Municipality of Clarington</b>	<b>City of Oshawa</b>	<b>Clarington Public Library</b>	<b>Oshawa Public Library</b>	<b>Clarington Public Library</b>
40 Temperance St. Bowmanville, ON L1C 3A6 Phone: 905-623-3379	50 Centre St. S Oshawa, ON L1H 3Z7 Phone: 905-436-3311	<b>Courtice Branch</b> 2950 Courtice Rd Courtice, ON L1E 2H8 Phone: 905-404-0707	<b>Northview Branch</b> 250 Beatrice St. E Oshawa, ON L1G 7T6 Phone: 905-576-6040	<b>Bowmanville Branch</b> 163 Church St Bowmanville, ON L1C 1T7 Phone: 905-623-7322

Please see the enclosed newspaper ad for details which will be featured in the *Oshawa/Clarington This Week*, the *Orono Times* and *Oshawa Express*.

If you have any questions regarding this project please feel free to contact me at (416) 345-6597, or Laura Rynard, Environmental Planner at (416) 345-5811 or by email at [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com)

Sincerely,



Brian McCormick  
Manager, Environmental Services and Approvals

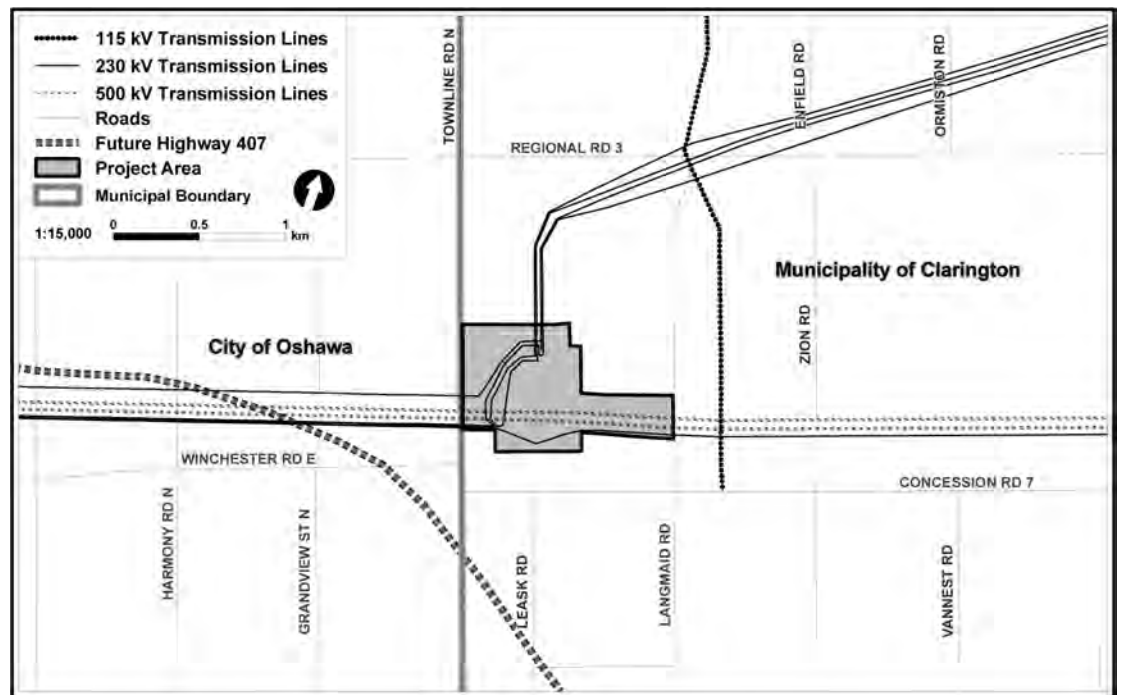
cc. Ian Jacobsen, Senior Manager, First Nations and Métis Relations  
Yu San Ong, Environmental Planner, Environmental Services and Approvals

Enc.

# NOTICE OF COMPLETION

## Draft Environmental Study Report Clarington Transformer Station

Hydro One Networks Inc. (Hydro One) has completed the draft Environmental Study Report (ESR) for the Clarington Transformer Station (TS) Project. The Ontario Power Authority (OPA) has recommended Hydro One build a new transformer station on Hydro One's property (see Project Area on map). The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering NGS is the largest generation facility in the east Greater Toronto Area (GTA) and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.



The proposed station is required to accommodate the eventual closure of Pickering NGS, meet current demand and future electricity growth in the local area and ensure the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

### How to provide your input

This project is being planned in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, approved under Ontario's *Environmental Assessment Act*. Hydro One is making the draft available for a 30 day public review and comment period, beginning November 15, 2012. The draft ESR can be viewed at [www.HydroOne.com/projects](http://www.HydroOne.com/projects). Hard copies of the draft ESR will be available at the following locations:

<p><b>Clarington Public Library</b> Courtice Branch 2950 Courtice Rd. Courtice, ON Tel: 905-404-0707</p>	<p><b>Clarington Public Library</b> Bowmanville Branch 163 Church St. Bowmanville, ON Tel: 905-623-7322</p>	<p><b>Municipality of Clarington</b> 40 Temperance St. Bowmanville, ON Tel: 905-623-3379</p>	<p><b>City of Oshawa</b> 50 Centre St. S. Oshawa, ON Tel: 905-725-7351</p>	<p><b>Oshawa Public Library</b> Northview Branch 250 Beatrice St. E. Oshawa, ON Tel: 905-576-6040</p>
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### Written questions or comments on the draft ESR must be received by Hydro One no later than 4:30 p.m. on Monday, December 17, 2012.

Please address your correspondence to:

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, ON M5G 2P5  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Tel: 1-877-345-6799 Fax: 416-345-6919

Hydro One will respond to and make best efforts to resolve any issues raised by concerned parties during the public review period. If no concerns are expressed, Hydro One will finalize the draft ESR and file it with the Ministry of the Environment. The project will then be considered acceptable and may proceed as outlined in the ESR.

The *Environmental Assessment Act* has provisions that allow interested parties to ask for a higher level of assessment for a Class Environmental Assessment project if they feel that outstanding issues have not been adequately addressed by Hydro One. This request for a higher level of assessment is referred to as a Part II Order request. Such requests must be addressed in writing to the Minister of the Environment and received no later than 4:30 p.m. on December 17, 2012, at the following address:

Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON M4V 1P5

Please note that a duplicate copy of a Part II Order request must also be sent to Hydro One's Environmental Planner at the address noted.



Partners in Powerful Communities

**Hydro One Networks Inc.**

483 Bay Street  
TCT-6, South Tower  
Toronto, Ontario, M5G 2P5  
yusan.ong@hydroone.com

Tel: 416-345-5031  
Fax: 416-345-6919



**Yu San Ong**, Environmental Planner, Environmental Services and Approvals

November 13, 2012

Dear Sir or Madam:

**RE: Clarington Transformer Station Class Environmental Assessment – Notice of Completion and Draft ESR 30-day review period**

In May 2010, Hydro One Networks Inc. (Hydro One) initiated a Class Environmental Assessment (EA) for a proposed 500-230 kilovolt (kV) transformer station (TS) in the Municipality of Clarington, Ontario.

The draft Environmental Study Report (ESR) of the Clarington TS is now complete and is available for review and comment. The draft ESR will be available for a 30 day review and comment period starting Thursday, November 15, 2012 until end of day Monday, December 17, 2012. The draft ESR can also be downloaded from the project website at [www.HydroOne.com/Projects/Clarington](http://www.HydroOne.com/Projects/Clarington)

Please see the enclosed newspaper ad for details which will be featured in the *Oshawa Clarington This Week*, *Oshawa Express*, and *Orono Times*.

If you have any questions regarding this project please feel free to contact me at (416) 345-5031, or Laura Rynard, Environmental Planner at (416) 345-5811 or by email at [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com)

Sincerely,

Yu San Ong  
Environmental Planner, Environmental Services and Approvals

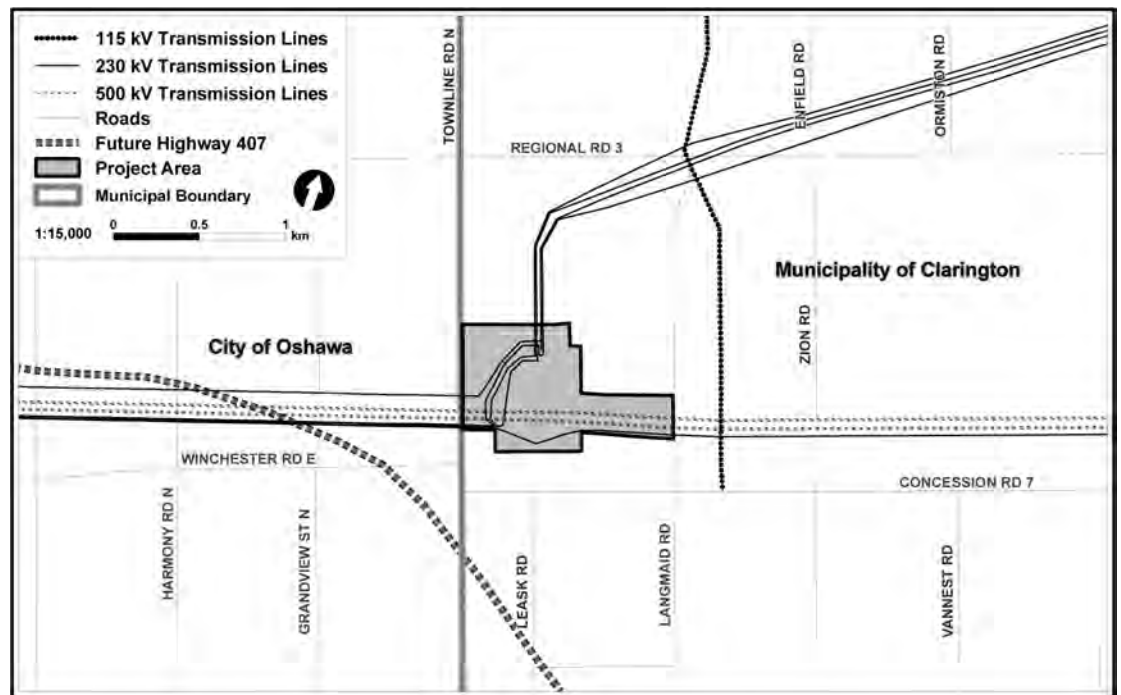
Enc.



# NOTICE OF COMPLETION

## Draft Environmental Study Report Clarington Transformer Station

Hydro One Networks Inc. (Hydro One) has completed the draft Environmental Study Report (ESR) for the Clarington Transformer Station (TS) Project. The Ontario Power Authority (OPA) has recommended Hydro One build a new transformer station on Hydro One's property (see Project Area on map). The OPA has advised Hydro One that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation and will be retired between 2015 and 2020. Pickering NGS is the largest generation facility in the east Greater Toronto Area (GTA) and supplies as much as 25 per cent of the east GTA's electricity demand. When the generating station is removed from service, its 3,000 megawatts of capacity must be replaced by a corresponding amount of power through Hydro One's transmission system.



The proposed station is required to accommodate the eventual closure of Pickering NGS, meet current demand and future electricity growth in the local area and ensure the area has the facilities necessary to ensure a safe, reliable supply of electricity to existing and future customers.

### How to provide your input

This project is being planned in accordance with the *Class Environmental Assessment for Minor Transmission Facilities*, approved under Ontario's *Environmental Assessment Act*. Hydro One is making the draft available for a 30 day public review and comment period, beginning November 15, 2012. The draft ESR can be viewed at [www.HydroOne.com/projects](http://www.HydroOne.com/projects). Hard copies of the draft ESR will be available at the following locations:

<b>Clarington Public Library</b> Courtice Branch 2950 Courtice Rd. Courtice, ON Tel: 905-404-0707	<b>Clarington Public Library</b> Bowmanville Branch 163 Church St. Bowmanville, ON Tel: 905-623-7322	<b>Municipality of Clarington</b> 40 Temperance St. Bowmanville, ON Tel: 905-623-3379	<b>City of Oshawa</b> 50 Centre St. S. Oshawa, ON Tel: 905-725-7351	<b>Oshawa Public Library</b> Northview Branch 250 Beatrice St. E. Oshawa, ON Tel: 905-576-6040
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### Written questions or comments on the draft ESR must be received by Hydro One no later than 4:30 p.m. on Monday, December 17, 2012.

Please address your correspondence to:

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, ON M5G 2P5  
Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)  
Tel: 1-877-345-6799 Fax: 416-345-6919

Hydro One will respond to and make best efforts to resolve any issues raised by concerned parties during the public review period. If no concerns are expressed, Hydro One will finalize the draft ESR and file it with the Ministry of the Environment. The project will then be considered acceptable and may proceed as outlined in the ESR.

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Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON M4V 1P5

Please note that a duplicate copy of a Part II Order request must also be sent to Hydro One's Environmental Planner at the address noted.



Partners in Powerful Communities

## **Appendix B7: Consultation Log**



Clarington TS Final ESR - Consultation Log - First Nation and Métis communities

Date	Community	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
5-Apr-12	Alderville First Nation	Chief Jim Bob Marsden	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	Canada Post successfully delivered
5-Apr-12	Chippewas of Georgina Island First Nation	Chief Donna Big Canoe	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	Canada Post successfully delivered
5-Apr-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 11, 2012 - signed Jacobs
5-Apr-12	Curve Lake First Nation	Chief Keith Knott/Krista Coppaway/Melissa Dokis	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 11, 2012 - signed Taylor
5-Apr-12	Hiawatha First Nation	Chief Sandra Moore	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 11, 2012 - signed Hogan
5-Apr-12	Huronne Wendat	Grand Chef Konrad Sioui	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 12, 2012 - signed GrosLouis
5-Apr-12	Métis Nation of Ontario	Melanie Paradis	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 11, 2012 - signed Stewart
5-Apr-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier/Murray Maracle	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 11, 2012 - signed Kozlinsky
5-Apr-12	Oshawa and Durham Region Métis Council	Rob Pilon	Yu San Ong/Laura Rynard	Email (from Laura) / Couriered Letter (from Yu San)	Notice of Commencement Package	received April 12, 2012 - signed Blakeley
18-Apr-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Brian McCormick	Letter (from Chief)	Directing Hydro One to forward a copy of the letter to the community's Barrister & Solicitor	Add Ms. Sandy-McKenzie to contact list
2-May-12	Mississaugas of Scugog Island First Nation	Murray Maracle	Yu San Ong	PPF	Confirming project site is on First Nation's Treaty land and they are interested in evaluating potential impacts to FN rights and interests	
3-May-12	Alderville First Nation	Chief Jim Bob Marsden	Yu San Ong	Couriered Letter	Notice of PIC#1	
3-May-12	Chippewas of Georgina Island First Nation	Chief Donna Big Canoe	Yu San Ong	Couriered Letter	Notice of PIC#1	
3-May-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed Shanna Fron
3-May-12	Curve Lake First Nation	Chief Keith Knott	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 7, 2012 - signed Taylor
3-May-12	Curve Lake First Nation	Krista Coppaway	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 7, 2012 - signed Taylor
3-May-12	Curve Lake First Nation	Melissa Dokis	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 7, 2012 - signed Taylor
3-May-12	Hiawatha First Nation	Chief Sandra Moore	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 8, 2012 - signed Hogan
3-May-12	Huronne Wendat	Grand Chef Konrad Sioui	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 7, 2012 - signed GrosLouis
3-May-12	Métis Nation of Ontario	Melanie Paradis	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed Stewart
3-May-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed Kozinsky
3-May-12	Mississaugas of Scugog Island First Nation	Murray Maracle	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed Kozinsky
3-May-12	Oshawa and Durham Region Métis Council	Rob Pilon	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed Blackley
3-May-12	Williams Treaties First Nations	Karry Sandy-McKenzie	Yu San Ong	Couriered Letter	Notice of PIC#1	received May 4, 2012 - signed R1152438
8-May-12	Mississaugas of Scugog Island First Nation	Murray Maracle	Laura Rynard	email	Confirming receipt of Murray's PPF and offering meeting. Reconfirmed invitation to attend PIC	
14-May-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Brian McCormick	Letter (from Chief)	Directing Hydro One to forward a copy of the letter to the community's Barrister & Solicitor	
16-May-12	Alderville First Nation	Dave Simpson	Yu San Ong	Email/Letter	As per the Community's Consultation Protocol, the project is deemed as having minimal potential to impact their First Nations' rights, therefore they wish to keep updated regarding any archaeological findings, burial sites, or any environmental impacts	
19-Jun-12	Alderville First Nation	Chief Jim Bob Marsden; Dave Simpson	Laura Rynard	Email	Sent copy of PIC#1 panels	
19-Jun-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry; Karry Sandy-McKenzie	Laura Rynard	Email	Sent copy of PIC#1 panels	
19-Jun-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier; Murray Maracle	Laura Rynard	Email	Sent copy of PIC#1 panels	
26-Jun-12	Alderville First Nation	Chief James R. Marsden; Dave Simpson	Laura Rynard	Email/Letter	Laura (Hydro One) provided Alderville First Nation with project information detailing the Stage 3 work required for the TS	AFN to respond by July 6th should the community have any concern regarding the Stage 3 investigation
26-Jun-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry; Karry Sandy-McKenzie	Laura Rynard	Email/Letter	Laura (Hydro One) provided Chippewas of Rama First Nation and the Barrister & Solicitor for Williams Treaties First Nations with project information detailing the Stage 3 work required for the TS	CRFN to respond by July 6th should the community have any concern regarding the Stage 3 investigation.
26-Jun-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier; Murray Maracle	Laura Rynard	Email/Letter	Laura (Hydro One) provided Mississaugas of Scugog Island First Nation with project information detailing the Stage 3 work required for the TS.	MSIFN to respond by July 6th should the community have any concern regarding the Stage 3 investigation.
27-Jun-12	Alderville First Nation	Melanie Arthur	Laura Rynard	Email	Melanie (AFN) contacted Laura regarding the Stage 3 Archaeological Investigation and Alderville First Nation would like to have their Aboriginal Liaison Monitor on site the week of July 16th to partake with the investigation. Melanie provided the appropriate rate and cost for Tracy Yeo to participate in the Stage 3 investigation.	Laura (Hydro One) to confirm Tracey has the appropriate insurance liability (complete) and to assist coordination with ASI to make sure Tracey is present during the Stage 3 investigation.
4-Jul-12	Mississaugas of Scugog Island First Nation	Murray Maracle	Laura Rynard	Voice Mail follow up to initial email	Murray (MSIFN) contacted Laura (Hydro One) for additional information regarding the Stage 3 archaeology investigation	Laura (Hydro One) to call Murray back via conference call with First Nations & Métis Relations department representative
5-Jul-12	Alderville First Nation	Melanie Arthur	Laura Rynard	Email	Laura (Hydro One) confirmed with Melanie that ASI has confirmed that Alderville First Nation's Liaison Monitor has the appropriate liability insurance for the Stage 3 archaeology investigation.	ASI and Liaison Monitor to work together to establish sub-contract.
5-Jul-12	Mississaugas of Scugog Island First Nation	Murray Maracle	Laura Rynard; Brian Kaufmann	Phone Call	Laura (Hydro One) followed up with Murray (MSIFN) regarding the Stage 3 archaeological investigation. Murray indicated that there should be a Williams Treaty Monitor Liaison for the archaeological investigation. Murray accepted Tracey Yeo as the representative for Williams Treaties First Nations.	Laura (Hydro One) to keep Murray informed of new progress as Stage 3 archaeological investigation continues. Laura reconfirmed via email that she would keep the Mississaugas of Scugog Island First Nation informed of the ongoing project.

Clarington TS Final ESR - Consultation Log - First Nation and Métis communities

Date	Community	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
11-Jul-12	Alderville First Nation	Melanie Arthur	Laura Rynard	Email	Melanie (AFN) confirmed Tracey Yeo will be available for the Stage 3 archaeological investigation	Laura (Hydro One) to ensure ASI is aware that Tracey will be a monitor for the Stage 3 work.
27-Jul-12	Alderville First Nation	Chief Marsden & Dave Simpson	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating the Stage 3 work for the proposed project has been completed.	
27-Jul-12	Chippewas of Rama First Nation	Chief Stinson Henry & Ms. Sandy-McKenzie	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating the Stage 3 work for the proposed project has been completed.	
27-Jul-12	Mississaugas of Scugog Island First Nation	Chief Gauthier & Murray Maracle	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating the Stage 3 work for the proposed project has been completed.	
30-Jul-12	Chippewas of Rama First Nation	Nicole Gray	Laura Rynard	Email	Nicole Gray (CRFN) sent an email to Laura thanking for the July 27th email on updated information on the proposed Clarington Transformer Station.	
17-Oct-12	Alderville First Nation	Chief Marsden & Dave Simpson	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating an additional Stage 2 Archaeological Assessment to take place for an option being sought for a proposed access road.	
17-Oct-12	Chippewas of Rama First Nation	Chief Stinson Henry & Ms. Sandy-McKenzie	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating an additional Stage 2 Archaeological Assessment to take place for an option being sought for a proposed access road.	
17-Oct-12	Mississaugas of Scugog Island First Nation	Chief Gauthier & Kelly Larocca	Laura Rynard	Email/Letter	Laura (Hydro One) provided a letter indicating an additional Stage 2 Archaeological Assessment to take place for an option being sought for a proposed access road.	
1-Nov-12	Alderville First Nation	Chief James R. Marsden; Dave Simpson	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Chippewas of Georgina Island First Nation	Chief Donna Big Canoe	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry; Karry Sandy-McKenzie	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Curve Lake First Nation	Chief Keith Knott/Krista Coppaway/Melissa Dokis	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Hiawatha First Nation	Chief Sandra Moore	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Métis Nation of Ontario	Consultation Unit	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier/Kelly Larocca	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
1-Nov-12	Oshawa and Durham Region Métis Council	Rob Pilon	Laura Rynard	Email/Couriered (November 2, 2012)	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
2-Nov-12	Huronie Wendat	Grand Chef Konrad Sioui	Laura Rynard	Couriered Letter	Laura (Hydro One) provided a letter and newspaper advertisement to notify about PIC#2	
8-Nov-12	Mississaugas of Scugog Island First Nation	Monica Sanford	Hydro One Team	PIC Attendance		
13-Nov-12	Alderville First Nation	Chief James R. Marsden; Dave Simpson	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Chippewas of Georgina Island First Nation	Chief Donna Big Canoe	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry; Karry Sandy-McKenzie	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Curve Lake First Nation	Chief Keith Knott/Krista Coppaway/Melissa Dokis	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Hiawatha First Nation	Chief Sandra Moore	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Huronie Wendat	Grand Chef Konrad Sioui	Laura Rynard	Couriered Letter	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Métis Nation of Ontario	Consultation Unit	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Mississaugas of Scugog Island First Nation	Chief Tracy Gauthier/Kelly Larocca/Monica Sanford	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
13-Nov-12	Oshawa and Durham Region Métis Council	Rob Pilon	Laura Rynard	Email/Couriered (November 13, 2012)	Laura (Hydro One) provided notice of completion for proposed project and a copy of the draft ESR that is available for 30 day review.	
20-Nov-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Brian McCormick	Letter (from Chief)	Received letter acknowledging receipt of November 1, 2012 letter and a copy has been forwarded to Karry Sandy-McKenzie.	
29-Nov-12	Chippewas of Rama First Nation	Chief Sharon Stinson Henry	Brian McCormick	Letter (from Chief)	Received letter acknowledging receipt of November 13, 2012 Notice of Completion letter and a copy has been forwarded to Karry Sandy-McKenzie.	No comments provided in acknowledgement letter. No further action required.

Clarington TS Final ESR - Consultation Log - Agencies

Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
3-Oct-11	Ontario Power Authority (OPA)	Amir Shalaby	Carmine Marcello	Letter	Amir (OPA) sent a letter to recommend Hydro One develop an implementation plan and initiative necessary work to install additional 500-230 kV autotransformer capacity within the east GTA by the spring of 2015	
11-Jan-12	OPA	Amir Shalaby	Carmine Marcello	Letter	Amir (OPA) recommends that Hydro One continue to work toward the objective of incorporating additional 500/230 kV autotransformation capacity at "Oshawa Area" TS for a spring 2015 service date	
20-Jan-12	Ministry of Energy; Ministry of Aboriginal Affairs (MAA)	Amy Gibson & Pam Wheaton	Doug Magee	Letter/Email	Letter from Hydro One requesting ME & MAA identify FN&M communities to consult for proposed transformer station in Municipality of Clarington	
23-Jan-12	MAA	Pam Wheaton	Laura Rynard	email	Email from MAA identifying the letter from January 20, 2012 has been forwarded to Wendy Cornet.	
5-Mar-12	Ministry of Energy	Amy Gibson	Doug Magee	Letter/Email	Letter from ME determining that there is a very low likelihood the proposed transformer station will potentially affect any First Nation or Metis rights. It was recommended that consultation is not necessary at that time.	
5-Apr-12	Municipality of Clarington	Faye Langmaid	Denise Jamal	Telephone Call	Denise (Hydro One) voicemail to arrange a meeting	
30-Apr-12	Municipality of Clarington, Planning	Faye Langmaid	Yu San Ong	Email	Faye (Municipality of Clarington) was assisting in Hydro Ones attempts to locate property owner addresses for mailing out project information.	
3-May-12	Aboriginal Affairs and Northern Development Canada (AANDC)	Josee Beaugard	Yu San Ong	Email	Josee indicated has changed jobs	To be removed from the contact list.
3-May-12	All contacts	All on contact list	Yu San Ong	Email/Letter	Initial Notification of Project.	
3-May-12	Municipality of Clarington, EFS	Gord Weir	Yu San Ong	PPF	Wishes to be kept on project mailing list	
3-May-12	Municipality of Clarington, Planning	David Crome	Yu San Ong	Email	Wishes to be kept on project mailing list	
3-May-12	Veridian Connections	Craig Smith	Yu San Ong	PPF	Craig will be the contact	
4-May-12	Ministry of Natural Resources (MNR)	Jackie Buckart	Yu San Ong	Email/Voicemail	Wanted to know additional information regarding the project.	Yu San provided basic information on what the proposed transformer station would involve.
4-May-12	MNR	Jackie Buckart	Yu San Ong	Email	Jackie (MNR) emailed Yu San inquiring about project details.	Yu San (Hydro One) followed up with Jackie and provided a brief description of the project and the associated line work.
4-May-12	Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)	Ray Valatis	Yu San Ong	Email	Ray (OMAFRA) indicated that Donna Mundie does not require to be consulted on the project	Donna Mundie is removed from the contact list; Laura to follow up regarding Provincial Policy Statement comments.
7-May-12	Central Lake Ontario Conservation Authority (CLOCA)	Warren Coulter	Doug Magee	Email	Doug (Hydro One) sent CLOCA a letter regarding an installation of a timber mat as soon as May 14, 2012 to access the property for geotechnical investigation to begin. The timber mats will be removed following the geotechnical investigation.	
10-May-12	CLOCA	Ian Kelsey & Warren Coulter	Sarah Cohanim	Phone	Ian (CLOCA) is going to provide a letter within the next 2 days indicating that CLOCA has no issues with the Timber Mat crossing for the geotechnical equipment. The letter will also provide general mitigation information.	
10-May-12	CLOCA	Ian Kelsey & Warren Coulter	Doug Magee	Email/Letter	CLOCA provided a letter of advice and operational statement regarding the temporary creek crossing associated with the geotechnical assessment.	
10-May-12	Durham Region, Planning	Henry Tang	Yu San Ong	PPF	Henry will be the contact	
11-May-12	Municipality of Clarington	Faye Langmaid; Patti Barrie; David Crome; Tony Cannella; Leslie Benson; Gord Weir	Yu San Ong	Email	Yu San (Hydro One) provided Faye an update to the project and information on the notification that was sent to property owners within 2 km radius of the proposed site. All letters to residents were hand delivered. Yu San indicated Hydro One is interested in establishing a meeting between Hydro One's team and the Municipality.	Faye (Municipality of Clarington) indicated that David Crome and Leslie Benson will be attending the PIC. Faye will ask the Municipality administrator to set up a meeting.
17-May-12	Ministry of the Environment (MOE)	Dorothy Moszynski	Yu San Ong	PPF	MOE has indicated a number of areas of interest with respect to the undertaking, including: ecosystem protection and restoration; surface water; groundwater; air quality, dust and noise; servicing and facilities; contaminated soils; mitigation and monitoring; planning and policy; Class EA process; and Aboriginal consultation	Team will ensure all comments will be addressed in draft ESR
17-May-12	MOE	Dorothy Moszynski	Yu San Ong	Email/Letter	Dorothy (MOE) provided a response to the notice of commencement. Dorothy provided comments relating to the following topics: ecosystem protection and restoration; surface water; groundwater; air quality, dust and noise; servicing and facilities; contaminated soils; mitigation and monitoring; planning and policy; Class EA process; and Aboriginal Consultation. The comments were provided for Hydro One to effectively address areas of interest surrounding the topics (listed above).	Contact MOE during Class EA process if any questions arise.
18-May-12	MNR	Jackie Buckart	Yu San Ong	Email	Yu San (Hydro One) contacted Jackie regarding establishing an initial project meeting (Debbie Pella Keen, Kyle Munro and Melinda Thompson) were all cc'ed.	Jackie (MNR) forwarded the email to Bodhan Kowalyk, District Forester; Melinda Thompson; Aurora McAllister, Assistant Species at Risk Biologist; Eva Bobak; Warren May and asked for them to respond with their availabilities directly to Yu San.
18-May-12	MNR	Bohdan Kowalyk	Yu San Ong	Email	Bohdan (MNR) responded to Yu San with his availabilities and requested for inventories before the meeting. Bohdan indicated that other than species at risk, MNR would be interested in the proposed treatment of features such as woodlands and wetlands. The site contains the Natural Linkage Area of the Oak Ridges Moraine and the Natural Heritage System of the Greenbelt Plan.	Yu San provided (May 22, 2012) the preliminary locations of the butternut trees identified within the project area and indicated that a health assessment will be undertaken.
22-May-12	City of Oshawa, Planning	Susan Ashton	Yu San Ong	Email	Provided Susan a copy of the notice of commencement of the project; Susan indicated she would be attending PIC#1	
22-May-12	Municipality of Clarington, Planning	Faye Langmaid, Sharon Norris, Carlo Pellarin	Yu San Ong	Email	Establishing a date for the municipal planning department and Hydro One to meet	
23-May-12	Greater Toronto Airports Authority (GTAA)	Mark Nowicki & Jane Lin	Yu San Ong	Email/PPF	Are interested in the potential effects of project alternatives on future Pickering Airport design and operations including: effects on potential energy supply (i.e. source, system capacity, availability); potential effects on future air navigation, communication, and surveillance equipment and signals; potential implications with respect to compatibility with airport zoning requirements, flight operations, and takeoff and approach surfaces	
23-May-12	GTAA	Mark Nowicki & Jane Lin	Yu San Ong	Email/PPF	Yu San followed up with Mark and Jane regarding their PPF; offered to arrange a meeting to discuss areas of interest; re-invited them to attend the PIC; inquired about lighting requirements on transmission line structures	
23-May-12	MNR	Jackie Buckart	Yu San Ong	Email	Jackie (MNR) advised Yu San (Hydro One) that the MNR Information Gathering Form (IGF) needs to be filed and returned to MNR prior to the meeting.	
23-May-12	Municipality of Clarington, Development Review	Carlo Pellarin	Yu San Ong	Email	Would like to view preliminary drawings of the station prior to holding a pre-consultation meeting.	Yu San provided a conceptual plan of the station.

Clarington TS Final ESR - Consultation Log - Agencies

Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
23-May-12	Municipality of Clarington, Planning; Municipality of Clarington, Engineering; City of Oshawa, Planning	David Crome, Leslie Benson, & Susan Ashton	Hydro One TEAM	PIC Attendance		
24-May-12	City of Oshawa, Planning	Susan Ashton	Yu San Ong	Email	Provided Susan a copy of PIC#1 panels	
24-May-12	City of Oshawa, Planning	Susan Ashton	Yu San Ong	Email	Susan involved Yu San she had a chance to speak with Hydro One at PIC#1. She indicated the individuals she was speaking with were helpful in explaining that Townline Road will not be the construction access for the new transformer. She will be in attendance of the meeting that is being held June 7 with the Municipality of Clarington and the City of Oshawa.	
24-May-12	MOE; OMAFRA; GTAA; MNR; CLOCA; Regional Municipality of Durham; Municipality of Clarington; City of Oshawa	Dorothy Moszynski; Agatha Garcia-Wright; Ray Valaitis; Jackie; Bohdan; Melinda; Aurora; Eva; Warren; Chris Darling; Warren Coulter; Ian Kelsey; Kathy Luttrell; Henry; David Crome; Carlo Pellarin; Faye Langmaid; Leslie; Susan Ashton	Yu San Ong	Email	Provided panels that were presented to the public at the PIC on May 23, 2012	
25-May-12	CLOCA	Warren Coulter	Yu San Ong	Email	Warren (CLOCA) provided a map with CLOCA features on the proposed Clarington TS site	
29-May-12	Municipality of Clarington	Amanda Hoffman	Yu San Ong	Email	Yu San (Hydro One) responded to Amanda and highlighted that the project is not an expansion of Enfield TS, but that it is a new station, Clarington TS. Yu San indicated that Hydro One would be meeting with CLOCA before the June 7 meeting.	
29-May-12	Municipality of Clarington	Carlo Pellarin; Faye Langmaid	Yu San Ong	Email	Yu San (Hydro One) indicated that Hydro One's Manager of Public Affairs will not be present June 7 and that a separate meeting regarding the consultation will have to take place a different day.	Follow-up with consultation update meeting.
30-May-12	MNR	Jackie Buckart	Yu San Ong	Email	Jackie indicated she is not the contact for the Clarington TS file. Jackie also mentioned MNR requires the IGF prior to meeting.	Melinda Thompson and Aurora McAllister are the appropriate contacts.
30-May-12	Nav Canada	General Contact - landuse@navcanada.ca	Yu San Ong	Email	Yu San (Hydro One) provided a general notification to NAV Canada on the project	
30-May-12	Nav Canada	Diane Levesque	Yu San Ong	Email	Nav Canada provided information to submit a land use submission form.	
30-May-12	TC	Michael Lucking; Monique Mousseau	Yu San Ong	Email	Yu San (Hydro One) followed up with Transport Canada regarding the requirement of the maximum height above ground level that would have to meet lighting requirements.	
30-May-12	Transport Canada (TC)	<a href="mailto:enviroont@tc.gc.ca">enviroont@tc.gc.ca</a>	Yu San Ong	Email	TC indicated that Monique Mousseau, Michael Lucking and Aerodromes Ontario are the appropriate contacts for the project. TC indicated they are the administration of the Navigable Waters Protection Act and Railway Safety Act. In order to determine lighting and marking requirements in accordance with Canadian Aviation Regulations 621.19, Hydro One is required to complete an Aeronautical Obstruction Clearance Form.	
31-May-12	AANDC	Don Boswell	Yu San Ong	PPF	Don (AANDC) confirmed he is the contact for the project and would like to be kept on the project mailing list.	
31-May-12	GTAA	Mark Nowicki	Yu San Ong	Email	GTAA would like to review design drawings of the transmission line structures, locations and ground elevations of the line structures, and technical specifications of the transformer equipment to assess the electromagnetic radiation.	
31-May-12	TC	Michael Lucking	Yu San Ong	Email	Michael (TC) indicated the appropriate contact regarding the marking and lighting requirements for Transport Canada through Civil Aviation is <a href="mailto:caso-saco@tc.gc.ca">caso-saco@tc.gc.ca</a>	
4-Jun-12	MNR	Aurora McAllister	Yu San Ong	Email	Aurora (MNR) confirmed that herself and Melinda are the appropriate contacts for Clarington TS. Aurora indicated to provide the link of the proposal when submitted.	Stantec to send in MNR IGF.
5-Jun-12	CLOCA	Warren Coulter; Ian Kelsey; K Luttrell; S Gauley	Yu San Ong; Doug Magee; Sarah Cohanim	Meeting	Hydro One and CLOCA met to introduce the project to discuss the overview, schedule and requirements.	
6-Jun-12	TC	<a href="mailto:caso-saco@tc.gc.ca">caso-saco@tc.gc.ca</a>	Yu San Ong	Email	Yu San (Hydro One) notified Civil Aviation section of Transport Canada regarding the project. Yu San requested lighting requirements of towers.	
7-Jun-12	Municipality of Clarington		Hydro One Team	Meeting	Pre-consultation meeting held at Municipality of Clarington offices to discuss municipal requirements, timelines and application costs	
8-Jun-12	Municipality of Clarington	Gerald Fradsham	Yu San Ong	Email	Yu San (Hydro One) requested GIS layers from the Municipality of the layers presented at the June 7, 2012 pre-consultation meeting and the proposed HWY 407 route.	
11-Jun-12	TC	Keith Reilly	Yu San Ong	Email	Keith (TC) provided information regarding lighting requirements and suggested NAV Canada be contacted on potential effects to air navigation systems.	
12-Jun-12	City of Oshawa	Sandra Kranc	Yu San Ong	Letter	Sandra (City of Oshawa) indicated that the City of Oshawa had received the May 5, 2012 letter discussing the proposed Transformer Station and notice of the Public Information Centre. The letter was raised at a City Council meeting and was received on the recommendation of the Development Services Committee.	If any further information is required, it is recommended to contact Paul Ralph, Director of Planning Services at the City of Oshawa.
12-Jun-12	City of Oshawa	Melissa Pringle	Yu San Ong	Email	Melissa (City of Oshawa) provided information that City Council has received correspondence on the project.	
13-Jun-12	GO Transit	Daniel Francey; Andreas Grammenz	Yu San Ong	Email	Yu San (Hydro One) followed up with GO Transit regarding the location of the property and confirming that they are the contact persons for the project.	
13-Jun-12	Ministry of Transportation (MTO)	Gary Todd; Andrew Beal; Heather McClintock	Yu San Ong	Email	Yu San (Hydro One) followed up with MTO regarding the location of the property in proximity to the location of the proposed 407 extension.	
13-Jun-12	MNR	Aurora McAllister	Sarah Cohanim	IGF	Sarah (Hydro One) submitted the IGF to MNR	Sarah to follow up with MNR regarding status of IGF within two weeks.
13-Jun-12	MNR	Melinda Thompson-Black	Sarah Cohanim	Email	Sarah (Hydro One) provided the MNR an IGF for the Clarington TS project.	MNR to follow up and provide Hydro One with comments regarding the project.
15-Jun-12	Municipality of Clarington	Faye Langmaid; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) inquired if the proposed site falls within the Heritage Conservation District and if it falls adjacent to any designated heritage properties.	
18-Jun-12	CLOCA	Warren Coulter; Ian Kelsey	Sarah Cohanim	Email	Sarah (Hydro One) provided Warren and Ian a summary of field studies that have been undertaken and those that are upcoming for the Clarington TS project.	Sarah to follow up with Warren and Ian regarding Hydro One's progress on field studies.

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Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
18-Jun-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Faye (Munc. Of Clarington) indicated the property is not within a Heritage Conservation District and is not adjacent to a designated property in Clarington. There are heritage resources in the area; Thomas Wilbur house and is in the 1878 Belden Atlas of Durham and Northumberland Counties, however is not designated. Many family farms in the area had their own burial sites.	
18-Jun-12	Municipality of Clarington	Anne Taylor Scott	Yu San Ong	Email	Anne (Munc. Of Clarington) indicated the proposed station is not within a Heritage Conservation District and is not adjacent to any designated heritage properties.	
19-Jun-12	City of Oshawa	Susan Ashton	Yu San Ong	Email	Yu San (Hydro One) provided an overview of the pre-consultation meeting that occurred between Hydro One and the Municipality of Clarington. The overview included the discussion of the original proposed access road via Langmaid Road and the potential use of Townline Road as a temporary access road during construction to erect a few transmission line structures on Hydro One property, west of the creek valley. There was also the discussion of an alternative access via Townline Road based on the public feedback Hydro One received during their PIC on May 23. Hydro One is currently investigating the possibility of using Townline Road to enter the site. In either access routes, Hydro One will continue to keep the City of Oshawa informed as Hydro One proceeds with their investigation to access road alternatives and information relating to the project. Yu San confirmed that the proposed Clarington TS site is not adjacent to any designated heritage properties in the City of Oshawa.	
19-Jun-12	MNR	Aurora McAllister; Melinda Thompson	Yu San Ong	Email	Yu San (Hydro One) emailed Melinda Thompson and Aurora McAllister to request an initial meeting and indicated the IGF and butternut health assessment report had been submitted	
19-Jun-12	MNR	Aurora McAllister; Melinda Thompson	Yu San Ong	Email	Yu San (Hydro One) provided potential dates (June 28, June 29, July 3, July 5, July 6) to meet with the Aurora MNR office to discuss the IGF and butternut health assessment that had been submitted to the district.	
20-Jun-12	City of Oshawa	Susan Ashton	Yu San Ong	Email	Susan (City of Oshawa) requested that the Director of Engineering Services from Oshawa be included on all further emails	Yu San to include the Director of Engineering Services on all future correspondence with the City of Oshawa.
20-Jun-12	MNR	Bohdan Kowalyk	Yu San Ong	Email	Bohdan (MNR) responded to Yu San (sent June 19) and indicated his availability for an upcoming meeting (June 25, July 17, 18, 19, & 20). He indicated he has received the Butternut Health Assessments.	
21-Jun-12	Municipality of Clarington	Gerald Fradsham	Yu San Ong	Email	Gerald (Munc. Of Clarington) provided Yu San with the requested GIS data.	Yu San to sign the data sharing agreement and return it to the Munc. of Clarington.
22-Jun-12	Infrastructure Ontario	Jamie Austin; Anil Wijesooriya	Yu San Ong	Email	Yu San (Hydro One) followed up with Jamie and Anil regarding the proposed station. Yu San discussed the proposed access from Langmaid Road and the possibility of access to the site from Townline Road. Yu San provided a conceptual layout of the station and the panels that were shown to the public at the PIC on May 23, 2012. Yu San requested confirmation that Jamie and Anil are the appropriate contacts at the Ministry of Infrastructure	Jamie and Anil to confirm contact.
22-Jun-12	Ministry of Culture, Tourism and Sport (MTCS)	Rosi Zirger	Yu San Ong	Email	Yu San (Hydro One) followed up with Rosi Zirger regarding the proposed station. Yu San requested confirmation that Rosi is the appropriate contact person at MTCS and requested a meeting to discuss the heritage components of the project.	Rosi to confirm contact and availability to meet.
22-Jun-12	Municipality of Clarington	Faye Langmaid; Ann Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) inquired to Anne & Faye regarding GIS layers that may be of relevance to mapping features for the proposed Clarington TS.	Hydro One to download the natural heritage layer (from MNR/Region Official Plan).
25-Jun-12	MNR	Bohdan Kowalyk	Doug Magee	Meeting	Doug (Hydro One) and Hydro One's natural environment consultant, Stantec met with Bohdan to review the findings of the butternut health assessment report.	
25-Jun-12	MNR	Bohdan Kowalyk	Doug Magee	Meeting	Doug (Hydro One) met with Bohdan and Stantec's butternut assessor (James) on site to review findings of the butternut health assessment report.	
25-Jun-12	MTO	Heather McClintock; Andrew Beal	Yu San Ong	Email	Yu San (Hydro One) indicated that the proposed site is over 500 metres away from the future Highway 407. Yu San requested confirmation that no building and land use permit would be required.	MTO to confirm no permit is required.
25-Jun-12	Municipality of Clarington	Amanda Hoffman	Yu San Ong	Email & attachments	Amanda provided Yu San (Hydro One) with the minutes of meeting from the June 7th pre-consultation meeting.	Yu San (Hydro One) to follow up with internal Hydro One team to confirm notes are accurate; following accuracy sign off to submit notes as part of application to the municipality
25-Jun-12	TC	Keith Reilly; Michael Lucking; Margaret Menczel; Aerodromes Ontario; Diane Levesque; Monique Mousseau	Yu San Ong	Email	Yu San (Hydro One) indicated the proposed project will not affect navigable waters and railways. The new 230 kV and 500 kV line structures will not be taller than the existing 500 kV structures within the same property. The current corridor runs east-west and there are no lighting and marking installed on the structures that are in the vicinity of the proposed site. Yu San indicated the Hydro One has been in contact with NAV Canada and that we will be submitting the Land Use submission form (Land Use file 12-2154) once the locations of the structures has been finalized.	Yu San/Hydro One team to submit the Land Use Submission form to NAV Canada.
26-Jun-12	MTO	Sabina Merey	Yu San Ong	Email & attachments	Yu San (Hydro One) provide Sabina with the conceptual station layout of the proposed Clarington TS along with the panels that were presented at the first PIC on May 23, 2012.	Sabina to determine if the proposed Clarington TS falls within MTO permit control.
27-Jun-12	City of Oshawa	Gary Carroll	Doris Chee	Phone Call	Doris (Hydro One) left Gary a voicemail to discuss the ownership regarding the unopened road portion of Townline Road	Doris to follow up with Gary to confirm status of unopened road allowance.
27-Jun-12	Municipality of Clarington	Rick Pigeon	Doris Chee	Phone Call	Doris (Hydro One) confirmed with Rick that the municipality's fire route requirement is based on the building code. If the length of our road access is more than 90 m from the street, then a fire truck turning radius is required. The turn around could be a bulb or a T-back up. A T-back up of 18 m straight portion is sufficient. The standard for fire routes is a 6m width and 12m centre line radius.	
28-Jun-12	City of Oshawa	Denny Boskovski	Doris Chee	Phone/Email	Doris (Hydro One) indicated Hydro One is in the process of an EA for a proposed transformer station. Hydro One is currently exploring the idea of using Townline Road as a permanent entrance into the site. Hydro One requests information regarding the ownership information of the unopened road allowance. Doris indicated Hydro One has a copy of the Boundary Road Agreement between the City of Oshawa and the Municipality of Clarington, however it is unclear as to who owns the unopened portion. Hydro One would like to present the project to the City of Oshawa should Oshawa want to be part of the discussion and preparation of the EA along with future construction and layout of the station. Doris has requested information regarding the realignment of Winchester Road and Concession 7.	Danny to confirm information. Doris/Yu San will follow up.
28-Jun-12	CLOCA	Rod Wilmot	Sarah Cohanin	Email	Rod (CLOCA) provided Sarah with a copy of the Black Harmony Farewell Watershet Management Plan.	
28-Jun-12	MTO	Martin Michalek; Andrew Beal	Yu San Ong	Email	Yu San (Hydro One) provided Martin and Andrew with the email and information that was sent to Heather McClintock	

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29-Jun-12	MNR	Aurora McAllister	Sarah Cohanim	Email	Sarah (Hydro One) followed-up with Aurora to confirm the Aurora MNR District (June 29, 2012) received the IGF in order to establish a meeting date with Hydro One and MNR to discuss the project. Aurora confirmed the district received the IGF, however they have not had the chance to review the form. Aurora District is currently screening a large number of projects and it will take a period of time to respond to Hydro One's request.	Brian McCormick (Hydro One) followed up with John Almond (Acting District Manager while Debbie Pella Keen is away) July 5, 2012 regarding the urgency of the project and the value of meeting with their staff as soon as possible. John (MNR) will receive the IGF and get back to Brian.
3-Jul-12	City of Oshawa	Denny Boskovski	Doris Chee	Phone	Doris (Hydro One) called Denny regarding the unopened road allowance and who has the jurisdiction regarding the road that would provide approval. For the project, due to the station land being located within the Municipality of Clarington, Clarington will be required to approve/sign agreement/provide clearance for Townline Road as access. The City of Oshawa will work with Clarington as the secondary land owner, but approval is with the Municipality of Clarington.	Yu San/Doris to follow up to establish a meeting with both the City and Municipality.
5-Jul-12	City of Oshawa	Susan Ashton; Denny Boskovski	Yu San Ong	Email	Yu San (Hydro One) requested a meeting (originally July 4, 2012) be established between the City of Oshawa and the Municipality of Clarington to discuss the use of the unopened Townline Road for potential permanent access to the proposed station. Yu San indicated that Hydro One is currently in negotiation with a private property owner to acquire a piece of land southwest of the site in order to accommodate for the access road. The permanent access road has been discussed with both municipalities and it would be beneficial for both municipalities to be at the same meeting to resolve any issues that may arise.	City of Oshawa representatives provided Yu San with the dates and times that are acceptable to meet. Meeting will be held July 12 at the City of Oshawa offices.
5-Jul-12	MNR	John Almond	Brian McCormick	Phone	John (MNR) contacted Brian (Hydro One) via telephone and indicated that Aurora District at MNR has limited resources and a backlog of permit requests. John understands the importance of our project and continuing communications. John recommends that if our field studies provide further information, relevant to outstanding permits, to forward to the MNR office immediately.	Keep MNR informed of project status and findings throughout field investigations.
5-Jul-12	MNR	John Almond	Brian McCormick	Phone Call	Brian (Hydro One) spoke to John Almond (filling in for Debbie Pella Kenn) and stressed the urgency of the project and the value of meeting with staff at Hydro One as soon as possible. Brian suggested that MNR and Hydro One meet to discuss reasonable timelines for addressing the key issues. John promised to review the status of the IGF and get back to Brian.	Follow-up with MNR.
5-Jul-12	Municipality of Clarington	Anne Taylor Scott; Faye Langmaid; Larry Postill	Yu San Ong	Email	Yu San (Hydro One) requested a meeting be established between the City of Oshawa and the Municipality of Clarington to discuss the use of the unopened Townline Road for potential permanent access to the proposed station. Yu San indicated that Hydro One is currently in negotiation with a private property owner to acquire a piece of land southwest of the site in order to accommodate for the access road. The permanent access road has been discussed with both municipalities and it would be beneficial for both municipalities to be at the same meeting to resolve any issues that may arise.	Municipality of Clarington representatives provided Yu San with the dates and times that are acceptable to meet. Meeting will be held July 12, 2012 at the City of Oshawa offices.
6-Jul-12	City of Oshawa	Denny Boskovski	Yu San Ong; Doris Chee; Laura Rynard	Email	Denny (City of Oshawa) answered the initial questions Doris indicated on June 28, 2012. Townline Road is a boundary road classified as a Type B Arterial road in the City of Oshawa's Official Plan. Townline Road is jointly owned by Oshawa and Clarington and its current status is unopened. The Boundry Road Agreement, dated June 28, 2004, By-Law 2004-165, Amendment December 6, 2004 defines the definition of "Developing Municipality" which is the Municipality of Clarington in this case and should be the lead on any discussion and decisions around the fate of this section of Townline Road. Since Townline Road is unopened, Oshawa & Clarington have no responsibility to perform any minimum legislatively required maintenance. Oshawa has studied the impact of 407 phased construction on local roads. The analysis considers realigning (straightening/minimizing the reverse S bends) for the Oshawa owned portion of Winchester Road @ Townline Road under certain scenarios.	
9-Jul-12	MNR	Jackie Buckart	Yu San Ong	Email	Jackie (MNR) followed up to confirm that the IGF form had been submitted. Yu San confirmed that the IGF has been submitted and that she has been in communication with Melinda Thompson and Aurora McAllister.	
11-Jul-12	MTCS	Rosi Zirger	Yu San Ong	Phone Call	Yu San (Hydro One) left a voicemail with Rosi to request a meeting with MTCS to discuss heritage for the project.	Rosi to confirm availability to meet.
12-Jul-12	City of Oshawa; Municipality of Clarington			Meeting	Discussion of the use of unopened Townline Road for the proposed Clarington TS project.	Yu San to provide the dimension loading for the Transformers (provided July 17, 2012).
12-Jul-12	City of Oshawa; Municipality of Clarington	Susan Ashton; Denny Boskovski; Larry Postill; Faye Langmaid; Leslie Benson	Yu San Ong	Email	The City of Oshawa and the Municipality of Clarington met with Hydro One to discuss the use of unopened Townline Road for the Clarington TS project.	
13-Jul-12	Regional Municipality of Durham, Health	Karl Kiproff	Doris Chee	Phone Call	Doris (Hydro One) called Karl at the Regional Municipality of Durham Health Department to discuss his comments on waste water handling at Clarington TS. Hydro One asked for clarification for why a septic system I required instead of holding tanks. Karl is using the Ontario Building Code for the reasoning to use septic beds and not holding tanks. The MOE requires all developments to treat their waste water onsite and will only allow trucking under certain conditions. The septic system required for this project is a Class 4 system under the OBC and the alternative would be a Class 1 systems.	Hydro One to meet with Karl to discuss requirements, refer to OBC and speak with Municipality regarding water requirements.
17-Jul-12	City of Oshawa; Municipality of Clarington	Susan Ashton; Denny Boskovski; Larry Postill; Faye Langmaid; Leslie Benson; Anne Taylor Scott; G Carroll	Yu San Ong	Email	Yu San (Hydro One) provided the City of Oshawa and the Municipality of Clarington with meeting notes from July 12 to discuss the unopened Townline Road for the proposed Clarington TS project. Yu San provided the current dimension load diagram for the transformer routing as well.	Larry Postill to review the transformer routing. City of Oshawa and Municipality of Clarington to review the notes of meeting. Leslie has responded in regards to comments on the notes of meeting.
17-Jul-12	City of Oshawa; Municipality of Clarington	Susan Ashton; Denny Boskovski; Larry Postill; Faye Langmaid; Leslie Benson; Anne Taylor Scott; G Carroll	Yu San Ong	Email	Larry (Municipality of Clarington) spoke on behalf of the City of Oshawa and the Municipality of Clarington that the notes of meeting from July 12, 2012 were reviewed and no corrections are required.	



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18-Jul-12	Municipality of Clarington	Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) submitted a letter to Ann Taylor Scott regarding site plan review. Hydro One indicated that at the pre-consultation meeting for the project on June 7, 2012, Hydro One did not expect to be engaged in a pre-consultation for site plan processing. Hydro One reconfirmed their stance that under section 62(1) of the Planning Act all Hydro One's undertakings that have been approved under the EA Act are exempt from the requirements of the Planning Act, thereby exempting Hydro One from the requirement to apply for site plan approval. Hydro One is currently undertaking the EA for the station and that the working relationship between Hydro One and the Municipality of Clarington will continue and to ensure Hydro One complies with applicable municipal by-laws, regulations and standards. Any required permits or approvals for construction will be applied for with the Municipality.	
19-Jul-12	CLOCA	Warren Coulter; Ian Kelsey; Diana Shemet	Doug Magee; Doris Chee; Laura Rynard; Sarah Cohanim; Jeff Cridland; David Wang; Tom Meisner	Meeting	Hydro One and CLOCA held an on-site meeting to communicate the involvement in the construction of the station and associated lines. CLOCA to discuss suggested mitigation measures and provide any additional considerations. The discussion of the meeting included the outlets for drainage; grading in proximity to creek and woodlot; remedial plant list; rationale regarding preferred tower locations; potential watercourse crossings; natural environment surveys	Hydro One to provide CLOCA with information and reports regarding the outlet; grading plan; a remedial plant list; rationale for lines tower construction locations; natural environment survey document.
25-Jul-12	Municipality of Clarington	Larry Postill	Yu San Ong	Email	The Municipality of Clarington provided comments regarding the haul route for the transformers. A full security deposit for the roads is warranted for the delivery of the transformers.	
25-Jul-12	Regional Municipality of Durham, Health	Karl Kiproff	Doris Chee	Phone	Doris (Hydro One) scheduled a meeting to take place on July 31 to discuss the requirements for septic system at Clarington TS and also Hydro One's options and alternatives for waste water management.	Meeting will take place on July 31 between Hydro One Planner, Hydro One Civil Engineer and Health Unit.
26-Jul-12	City of Oshawa; Municipality of Clarington	Susan Ashton; Denny Boskovski; Larry Postill; Faye Langmaid; Leslie Benson; Anne Taylor Scott; G Carroll	Yu San Ong	Email	Yu San (Hydro One) provided the updated notes of meeting from the July 12, 2012 meeting between the City of Oshawa, Municipality of Clarington and Hydro One based on comments received.	Any individual who has further comments is to follow-up with Yu San.
31-Jul-12	Regional Municipality of Durham, Health	Karl Kiproff	Doug Magee; David Wang	Meeting	Doug & David (Hydro One) met with Karl regarding the proposed holding tank at Clarington TS. The purpose of the meeting was to discuss the proposed holding tank and the different class sewage systems for which the station could apply for.	
7-Aug-12	Municipality of Clarington	Faye Langmaid; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) provided an update on Hydro One's natural environment studies and consultation with CLOCA. Yu San indicated we have been in contact with CLOCA since May, had an initial in-person meeting in early June, and had an on-site meeting with them in July. It was further explained that Hydro One has identified a few watercourse crossing locations in order to facilitate the construction of the station and lines. The site drainage, site grading and remedial planting were discussed. The meeting notes from the on-site meeting with CLOCA on July 19, 2012 were attached. Lastly, Yu San provided an update as to when Hydro One would be meeting with area residents to discuss their issues and concerns.	Yu San to continue to keep Faye and Anne updated on our findings and consultation with CLOCA.
8-Aug-12	Municipality of Clarington	Leslie Benson	Rob Thomson	Phone Call	Rob (Hydro One) contacted Leslie to request approval to obtain a temporary access permit for using the unopened road allowance for Hydro One's access to the transformer station site for pre construction purposes. Leslie indicated Hydro One would need to highlight the types of activities being done on our site to correspond with the usage on the unopen road allowance. Leslie indicated there would be special conditions on the permit which would require no tree cutting and upgrading of the existing road to be undertaken.	
9-Aug-12	City of Oshawa; Municipality of Clarington	Denny Boskovski; Susan Ashton; Larry Postill	Yu San Ong	Email	Yu San (Hydro One) indicated to Benny that the detail planning has been completed for the transformers. It is anticipated that the transformers will move in the Winter of 2013/2014 or after May 1, 2014. This result in planning will respect the 1/2 load season in the area.	
14-Aug-12	GTAA	Mark Nowicki; Jane Lin	Yu San Ong	Email	Yu San (Hydro One) indicated to Mark that the Class EA process is still underway for the proposed Clarington TS and the final design will not be available until later this year. Yu San provided information relating to electric and magnetic fields (EMF) for the operation of Hydro One's transmission lines.	When lines design is finalized, Yu San to provide GTAA with transmission line structure information.
14-Aug-12	MTCS	Paula Kulpa	Yu San Ong	Email	Yu San (Hydro One) contacted Paula who is now the appropriate contact person for projects in Central Region. Yu San provided Paula with the Class EA notification email and PIC information panels which were provided to Rosi Zirger in May and June.	
16-Aug-12	Municipality of Clarington	Leslie Benson	Rob Thomson	Email	Rob (Hydro One) emailed Leslie in reference to their telephone conversation regarding a temporary occupancy permit on unopen road allowance between the Municipality of Clarington and the City of Oshawa. Hydro One is conducting site visits this year and early in 2013 to the proposed transformer station location. In order for Hydro One to access the proposed site, Hydro One requires temporary use of the unopen road allowance. Hydro One is requesting the Municipality of Clarington to issue a temporary occupancy permit to Hydro One for approximately 7 months. The types of activities Hydro One will be performing include: project delivery and supply chain with proponents looking to bid for the station contract; geotechnical investigations; and site visits by Hydro One staff and outside stakeholders.	Rob followed up with Leslie on August 28, 2012.
17-Aug-12	MOE	Dorothy Moszynski	Yu San Ong	Email	Yu San (Hydro One) contacted Dorothy (MOE) as a follow-up to Dorothy's phone call to Laura Rynard on August 15, 2012. Yu San indicated that Hydro One would like to provide the MOE with a status update and the next steps on the Clarington TS project, and also to address any issues or comments the MOE may have.	Dorothy followed up (August 20, 2012) and indicated that she is "available August 27-31 to meet".
21-Aug-12	MOE	Dorothy Moszynski	Yu San Ong	Email	Yu San (Hydro One) followed up with Dorothy regarding the proposed meeting between Hydro One and the MOE. Yu San indicated that Hydro One would be happy to host the meeting. Yu San suggested the proposed agenda as the following: project overview; update on environmental inventory and potential effects & proposed mitigation; update on consultation activities; project timeline; and next steps.	Dorothy and Yu San followed up and the meeting was scheduled for the 27th.

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22-Aug-12	City of Oshawa; Municipality of Clarington	Denny Boskovski; Susan Ashton; Larry Postill	Yu San Ong	Email	Denny (City of Oshawa) discussed the proposed load and route for the Clarington TS. Denny attached a map and should be reviewed regarding the remaining points. Hydro One's proposed route is 14.8 km long and will traverse approximately 7.8 km of City owned road, 2 bridges, and 22 cross road culverts. City owned roads have an average surface width of approximately 6.4m, are surface treated and are subject to load restrictions. When Hydro One wishes to use the route, Hydro One and Don Anderson Haulage will be requested to take out an application with the City to permit the move. The City of Oshawa requires Hydro One to consult with a quality structural engineer and provide a report, assessing the ability of the 2 structures, in support of the proposed route and application. Denny asked Yu San if Hydro One has an alternative route should City roads be unavailable.	Yu San/Hydro One team to contact Denny should any questions/concerns arise.
23-Aug-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) followed up with Warren (CLOCA) regarding the deliverables discussed at the July 17, 2012 meeting. The deliverables discussed included the following: 1) statement regarding one drainage system outlet as opposed to two and the drainage brief. 2) Grading options outside the fence in the north and north-west section of the adjacent to the wooded area and creek system. 3) Access road location along and off of Townline Road. 4) Map indicating all river crossings and whether they are temporary or permanent. 5) Natural Features Report from Stantec. 6) Rationale regarding the routing option selected. 7) Plant and forb list for remediation of creek and planting on slopes.	Deliverables 1, 4, 5, 7 were sent August 23, 2012. Deliverables 2, 3 & 6 were submitted September 18, 2012.
23-Aug-12	MNR	Melinda Thompson-Black	Sarah Cohanin	Email	Sarah (Hydro One) provided the MNR an updated IGF on the project. The IGF provided updated information on the completed natural environment surveys, the Butternut Health Assessment and project maps.	MNR to contact Sarah if they have questions or comments.
23-Aug-12	MNR	Debbie Pella Keen	Yu San Ong/Brian McCormick	Email	Yu San (Hydro One) provided Debbie (MNR) with three attachments: a letter, the existing natural environment survey, and the IGF on the Clarington TS project. The purpose of the letter was to bring Debbie's attention to the work that Hydro One has completed to date on the proposed Clarington TS project with respect to the natural environment. Brian discussed the project schedule, with the start of project notification in May 2012 and contingent on the successful completion of the Class EA process, construction will start as early as March 2013 and the station will be placed in service in the spring of 2015. Brian further indicated that the butternut health assessment has been reviewed by MNR and submitted. The letter stated that, "we (Hydro One) are anxious to move ahead in project issues before our project schedule is affected," as Brian requested to meet with MNR as soon as possible to confirm requirements and content of approval applications.	
23-Aug-12	Municipality of Clarington	Faye Langmaid; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) provided the list of deliverables Hydro One will be providing to CLOCA for their review and comment. Yu San indicated that the information will be shared with the Municipality of Clarington. Yu San provided 3 of the 7 deliverables to Faye and Ann. Yu San also indicated the Community Information Meeting had been scheduled for September 11 at the Solina Community Hall and Hydro One will be hand delivering notices to area residents in a week.	
27-Aug-12	MOE	Dorothy Moszynski	Yu San Ong; Laura Rynard; Jeff Cridland; Denise Jamal	Meeting	MOE and Hydro One had a meeting to discuss the proposed project, work completed to date, timelines, requirements and status of the ongoing project consultation.	
28-Aug-12	Municipality of Clarington	Faye Langmaid; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) contacted Faye and Anne (Municipality of Clarington) to discuss Hydro One and the Municipality of Clarington to meet regarding a status update on the proposed project as well as discuss the site plan review process for the proposed station.	Faye and Anne to provide availability for meeting in the next couple of weeks.
29-Aug-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Voicemail	Faye Langmaid left Yu San (Hydro One) a voice mail regarding a potential conference call between Hydro One and the Municipality of Clarington	Yu San followed up (August 30) through email and indicated she was checking availabilities of Hydro One team members and will get back to Faye. Yu San followed up (August 31) and scheduled the meeting September 6 from 2 - 3.
30-Aug-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Yu San (Hydro One) followed up with Faye (Municipality of Clarington) who left a voice message for Yu San on August 29th.	Yu San is to follow up with Hydro One Team to determine date of conference call with Municipality of Clarington on project updates.
31-Aug-12	City of Oshawa; Municipality of Clarington; Regional Municipality of Durham		Yu San Ong	Email	Yu San (Hydro One) provided the City of Oshawa, the Municipality of Clarington and the Regional Municipality of Durham the advertisement and flyer for the upcoming community meeting on September 11.	
31-Aug-12	Ministry of Energy; MOE; MNR; CLOCA	Allan Jenkins; Hartley Springman	Yu San Ong	Email	Yu San (Hydro One) provided the Ministry of Energy, Ministry of the Environment, Ministry of Natural Resources, Central Lake Ontario Conservation Authority the advertisement and flyer for the upcoming community meeting on September 11.	
31-Aug-12	MNR	Aurora McAllister; Melinda Thompson-Black	Sarah Cohanin	Email	Sarah (Hydro One) asked for confirmation from MNR if the agency has received the updated IGF for the Clarington TS Project.	MNR to confirm that have received the IGF and inform Hydro One when they are available to meet to discuss the project. Aurora confirmed they received the IGF and will be providing a response in 2-3 weeks.
4-Sep-12	MNR	Aurora McAllister; Melinda Thompson	Sarah Cohanin; Yu San Ong	Email	Sarah (Hydro One) asked for MNR to confirm whether they received the updated IGF for the proposed Clarington TS project.	Aurora (MNR) followed up and confirmed they received the IGF on August 23rd and hope to give Hydro One a response within 2-3 weeks.
4-Sep-12	Municipality of Clarington	Leslie Benson	Rob Thomson	Email	Leslie has offered a meeting with Rob to discuss the temporary occupancy permit on the unopen road allowance	Rob to follow-up and call Leslie before he travels to the Municipality of Clarington to fill out the permit.
6-Sep-12	Municipality of Clarington	Faye Langmaid; Leslie Benson;	Yu San Ong; Doris Chee; Laura Rynard; Doug Magee; Denise Jamal	Conference Call	Hydro One and the Municipality of Clarington had a conference call to discuss project updates, plan review process, and next steps. The conference call discussed the Road occupancy permit for Townline Road; CLOCA's accountability; Clarifications on Official Plan; the upcoming Clarington General Purpose and Administration Meeting; Agency Consultation; Butternut trees; Public Consultation; Class Environmental Assessment timeline; Plans review process; and next steps.	Hydro One will continue to keep the Municipality of Clarington informed of project developments.
6-Sep-12	Municipality of Clarington	Leslie Benson	Rob Thomson	Meeting	Rob (Hydro One) discussed the temporary occupancy permit on the unopened road allowance between the Municipality of Clarington and the City of Oshawa. Leslie Benson (Municipality of Clarington) and Rob Thomson (Hydro One) signed the temporary road occupancy permit for the Townline Road Allowance.	
7-Sep-12	Durham Region Health Department	Karl Kiproff	Doug Magee	Phone Call	Doug (Hydro One) spoke with Karl regarding the disposal of water at the site for the proposed bathroom. Karl is ok with a dry well or leaching pit. A dry well or leaching pit would require a permit and is a Class 2 system. A leaching pit allows for 1000L/day or 230 L/fixture. Information regarding the requirements and sizing of the pit can be found in the OBC Part 8.	Doug to provide Karl with a proposal of Hydro One's intentions.

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Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
7-Sep-12	Municipality of Clarington	Rick Pigeon	Doug Magee	Phone Call	Doug (Hydro One) spoke with Rick regarding Hydro One's plans for a washroom and that Hydro One does not want to install a well. Rick did not foresee a problem in that Clarington had done this elsewhere but he wanted to provide Hydro One with definitive input.	Hydro One team to provide Doug with the proposed requirements including quantity, where and how the water is to be housed and how it is intended to be delivered. When Doug has all Hydro One information Rick requested, Doug to follow-up.
13-Sep-12	Municipality of Clarington	Leslie Benson	Rob Thomson	Email	Rob (Hydro One) followed up with Leslie from the correspondence dated August 16, August 28, and September 4 between Rob and Leslie. Rob attached a "proposed sketch showing the townline unopen road allowance and the dimension for the length being utilized." Rob further advised that Hydro One proposes to "use the road for the following purposes over the period of time of approximately 7 months or prior to granting of a more permanent license agreement after EA approval." The purposes include: "Project Delivery and Supply Chain with proponents looking to bid the station contract; Geotechnical investigation required for the lines work; Random site visits by Environmental Engineering with outside stakeholders; and, Random site visits by Corporate Communications with outside stakeholders."	Leslie (Municipality of Clarington) to comment on proposed sketch if Municipality of Clarington has comments.
14-Sep-12	City of Oshawa	Denny Boskovski; Susan Ashton; G Carroll	Yu San Ong	Email	Yu San (Hydro One) provided Denny with the comments reviewed by Hydro One's contractor; Don Anderson Haulage. Don Anderson Haulage indicated that the current route is the most viable as the steel bridges will eliminate all potential damages to the culverts.	
18-Sep-12	CLOCA	Warren Coulter	Yu San Ong	Email	Yu San (Hydro One) provided Warren with the two remaining deliverables (2 & 6) for the proposed Clarington TS project via courier, for CLOCA's review and comment. Deliverable 2 includes the grading in the northwest section of the site and deliverable 6 includes the route selection rationale.	Warren to review and provide comment on Hydro One's Clarington TS project.
18-Sep-12	Municipality of Clarington	Faye Langmaid; Leslie Benson; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) provided the draft meeting notes from the conference call between Hydro One and the Municipality of Clarington	Municipality of Clarington to review and comment before notes are finalized.
25-Sep-12	CLOCA	Warren Coulter	Sarah Cohanin	Telephone Call	Sarah (Hydro One) let Warren a voicemail regarding proposed watercourse crossings at the Clarington site for upcoming geotechnical work.	Warren followed up through email and indicated for Sarah to provide a map showing the locations.
25-Sep-12	MNR	Aurora McAllister; Melinda Thompson-Black	Sarah Cohanin	Email	Sarah (Hydro One) followed-up with Aurora to provide Hydro One with an update of their review of the IGF. Sarah asked if MNR was available for a meeting to discuss the Clarington TS Project.	MNR to provide Hydro One with an update of their review and provide Hydro One with their availability for a meeting.
25-Sep-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Yu San (Hydro One) provided Faye with an update regarding the deliverables to CLOCA	Yu San to send Faye a copy of the CD with the deliverables.
28-Sep-12	CLOCA	Warren Coulter	Sarah Cohanin	Email/Letter	Sarah (Hydro One) provided Warren with a letter and map regarding proposed timber mat water crossings for upcoming lines geotechnical work.	
1-Oct-12	Municipality of Clarington	Faye Langmaid; Leslie Benson; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) followed up with Faye, Leslie and Anne regarding the conference call on September 6.	Municipality of Clarington to review notes of meeting from September 6, 2012 conference call.
2-Oct-12	Durham Region Health Department	Anthony Dipietro	Denise Jamal	Phone Call	Anthony (Durham Region Health Dept) called the Community hotline and is interested in the Environmental Study Report.	Denise followed up with Anthony to let him know about the status of the EA. Hydro One to add him to project contact list.
3-Oct-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) followed up with Warren (CLOCA) regarding the documents that were sent for review and comment relating to the Clarington TS. Doug indicated that Hydro One would like to meet with CLOCA to discuss the submissions of the deliverables and if further clarification or work is required.	Warren followed up through email and voicemail. The earliest time CLOCA can meet is the week of October 22. CLOCA is available 22, 24, 26. Doug followed up with Warren (October 4) and indicated the 26th is good for the Hydro One team.
3-Oct-12	MNR	Debbie Pella Keen	Brian McCormick	Email/Letter	Brian (Hydro One) provided Debbie (MNR) with a status update of the Class EA process for Clarington TS. The second PIC will be held in late-October/early November and the release of the draft ESR for 30 day comment and review after the second PIC in November. As indicated in the August 23 letter, Hydro One has undertaken the necessary field surveys and have provided the report describing the existing natural environment as well as the updated IGF to the Aurora District office for review and comment. Hydro One has determined that fewer than 10 retainable butternut trees would be required to be removed in order to accommodate for the proposed project and the butternut health assessment has been submitted to the Aurora District Forester. Unfortunately, Hydro One has not been able to meet with "planning staff at your office since initial project notification in early-May, to ensure that we have fully addressed MNR's interested on the project." Hydro One is comment to work closely with MNR throughout the planning and construction stages of the project. Hydro One is "anxious to receive your feedback and look forward to working closely with your staff."	If there is anything Hydro One staff can do to facilitate the review of the project and project files, MNR to notify Hydro One.
3-Oct-12	MOE	Dorothy Moszynski	Yu San Ong	Email/Letter	Yu San reconfirmed that the proposed site is the only reasonable alternative, with the rationale as the following: The OPA has recommended development of this site; the site was acquired in 1978 by Ontario Hydro for future use as a transformer station; the site houses the necessary transmission infrastructure and provides sufficient land area required to build the proposed station; no additional land is required to construct and connect the station; the costs to purchase another property would be significant and an unjustifiable expense to Ontario ratepayers; use of proposed site is consistent with the PPS (2005); and the site is designated utility and transmission facilities are of permitted use under the appropriate Official Plans as well as the Oak Ridges Moraine Conservation Plan (ORMCP) and Greenbelt Plan. Yu San indicated a community information meeting took place on September 11 to listen to residents' feedback and to address their issues and concerns. A second PIC will be held in the fall where the draft ESR will be issued for review shortly after. Contingent on the successful completion of the Class EA process, construction will start as early as March 2013 and the station will be placed in service in the spring of 2015.	Yu San to continue to keep Dorothy informed of the project. Dorothy confirmed she received the letters on October 16, 2012.
4-Oct-12	MNR	Bohdan Kowalyk	Doug Magee, Sarah Cohanin, Dave Smith	Meeting	Bohdan (MNR) met the Hydro One team on site to take samples of the butternut trees at the Clarington TS property. The Hydro One Team discussed the plan of the project and expressed the desire to meet with the MNR team as soon as possible to discuss the project. Samples were taken of the five butternut trees expected to be removed for the planned lines configuration and one potential heritage butternut tree.	Hydro One to provide MNR with a copy of the conceptual layout and station grading. Bohdan will analyze the samples and determine if the trees are pure or hybrid.
9-Oct-12	City of Oshawa	Denny Boskovski (G Carroll, Susan Ashton & Anne Taylor Scott cc'ed)	Yu San Ong	Email	Yu San (Hydro One) followed up with Denny regarding the transformer transportation route. Yu San inquired if Denny had additional comments on the route as Hydro One would like to confirm that the information provided is sufficient and meets requirements. Yu San also asked Ann Taylor Scott to pass the information to the appropriate staff at the Municipality of Clarington.	Denny to follow-up and provide comments.

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9-Oct-12	MTCS	Laura Hatcher	Yu San Ong	Email	Yu San (Hydro One) contacted Laura is now the appropriate contact person for projects in Central Region. Yu San provided Laura with the Class EA notification email and PIC information panels which were provided to Rosi Zirger in May and June and to Paula Kulpa in August. Yu San indicated that Hydro One is proceeding with the Class EA process and that the second PIC is currently scheduled in November. ASI was retained to conduct the Stage 2 and 3 archaeological assessments of the project and that they have been submitted to the MTCS offices. Yu San indicated the proposed project is not expected to have an potential effects on cultural heritage resources.	Laura to follow up with Yu San regarding the project.
9-Oct-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Faye (Municipality of Clarington) provided comments (on behalf of herself, Leslie Benson & Anne Taylor Scott) back to Yu San regarding the conference call meeting notes on September 6, 2012. The comments were relating to the definition of development from the Clarington Official Plan and the Oak Ridges Moraine Plan; the landform conservation plan should be confirmed by MMAH; and comments regarding the site plan process and associated review fees.	Hydro One to follow up with MMAH regarding conservation landform plan and provide the Municipality of Clarington regarding status of site plan and associated fees. Yu San incorporated the comments into the meeting notes for the conference call on September 6.
10-Oct-12	CLOCA	Warren Coulter	Doug Magee	Phone Call	Warren (CLOCA) and Doug (Hydro One) discussed the topics of the meeting on October 26, 2012.	
10-Oct-12	MAH	Victor Doyle	Yu San Ong	Email	Yu San (Hydro One) wrote to MAH to retrieve confirmation that the proposed Clarington project is exempt from section 30 "Landform Conservation Areas" of the ORMCP (2002). Based on the definition of development and site alteration under the ORMCP, the construction of facilities for utilities does not fall within those definitions and therefore the Clarington TS project is exempt from the application of a landform conservation plan. Yu San also provided an update on the project and the timelines for the next few months.	MMAH to confirm the exemption under the ORMCP.
10-Oct-12	MNR	Danielle Aulenback	Yu San Ong	Email	Danielle (MNR) followed up with Yu San and indicated that she was in the process of reviewing the IGF and it is incomplete with respect to providing Project details. Danielle requires the details of the major stages of the proposed activity, including site preparation components, construction components and rehabilitation/restoration components.	Hydro One team to follow up with MNR and provide additional information.
12-Oct-12	MAH	Victor Doyle	Yu San Ong	Email	Victor (MAH) passed on Yu San's email to the Municipal Services Office. Victor indicated his colleague would be able to provide a detailed response.	MMAH to follow up. Yu San thanked Victor for his response and indicated she looks forward to MMAH's response. Victor indicated to check with David Sit (MMAH) who from their office should be the contact.
12-Oct-12	MAH	David Sit	Yu San Ong	Email	David (MAH) indicated that Mark Christie is the appropriate contact person for Clarington TS. David indicated that infrastructure projects are subject to the requirements of s.41 under the ORMCP.	Yu san to follow up and confirm that Hydro One falls under S.41, but seek clarification on S.30 of the ORMCP.
15-Oct-12	Municipality of Clarington	Faye Langmaid; Leslie Benson; Anne Taylor Scott	Yu San Ong	Email	Based on updated comments from the Municipality of Clarington, Yu San sent out the revised conference call notes of minutes held on September 6, 2012 for the proposed project.	
16-Oct-12	MAH	Louis Bitonti	Yu San Ong	Email	Louis (MAH) followed up from Victor Doyle's email and indicated that the construction of facilities for transportation, infrastructure and utilities uses are not defined by the ORMCP as development and site alteration. Louise further indicated that while the policies of section 30 does not apply to this project for utility use within Natural Linkage and Natural Core Areas, the ORMCP includes policies in section 41 for an application for utility use that would apply. Section 41 requires that the need for the project has to be determined to be necessary and there is no reasonable alternative, the area of construction disturbance is to be kept to a minimum, protection of key natural heritage and hydrologically sensitive features, and that planning, design and construction practices minimize any adverse impacts on the ecological integrity of the ORMCP. MMAH concludes that section 30 of the ORMCP does not apply, however section 41 does.	Yu San to keep Louis updated on the status of the project.
17-Oct-12	MTCS	Laura Hatcher	Yu San Ong	Email	Yu San (Hydro One) followed up based on her October 9, 2012 email to Laura. Yu San provided Laura with the following documents: information regarding the cultural heritage resources on the proposed project, map showing heritage properties in vicinity of project area; screening for impacts to built heritage and cultural heritage landscapes. Yu San confirmed that Hydro One does not expect that the proposed project to have any potential effects on cultural heritage resources.	MTCS to follow up if they require further information or clarification. Yu San offered to meet to discuss the proposed project and the attached documentation.
17-Oct-12	Municipality of Clarington	Ann Taylor Scott	Yu San Ong	Email	There were a series of emails in which Yu San followed up with Anne if the Municipality of Clarington had additional comments to the route and timing for the transportation of the transformers to the proposed site. Anne indicated that the Municipality of Clarington had previously provided comments and that Operations and Engineering staff will wait to see the structural reports. Yu San provided the City of Oshawa's comments on the transformer route and that Hydro One will continue to keep the Municipality updated on information relating to the subject.	
17-Oct-12	Municipality of Clarington	Ann Taylor Scott	Yu San Ong; Doris Chee	Email/letter	Yu San (Hydro One) provided Anne with the response to municipal fees discussed at the September 6, 2012 meeting and a letter sent by Doris Chee on July 18, 2012 between Hydro One and the Municipality of Clarington. The letter (from Doris Chee) provided the Municipality of Clarington confirmation that the proposed Clarington TS is exempt from Site Plan Approval once approval is received under the EA Act per section 62(1) of the Planning Act. In the letter it confirms that the Municipality of Clarington is in agreement with the exemption, but is still seeking payment of the Site Plan Application fee. Doris indicated that under the EA, Hydro One welcomes "comments but as with all other stakeholders, we are not prepared to pay for those comments directly or indirectly through voluntary payment of fees." Doris indicated that Hydro One is prepared to submit fees and charges as listed and where applicable as per the requirements of the Ontario Building Code and Municipal permitting standards for construction, which include: Clarington Operation Truck Haul Deposit and Building Permit Fees. Doris indicated that once detailed plans are completed for the construction of Clarington TS, they will be forward to the Municipality of Clarington for comment.	
18-Oct-12	MNR	Danielle Aulenback	Yu San Ong	Email	Yu San (Hydro One) provided a memo for MNR's review and comment relating to the IGF, butternut trees, route selection rationale, environmental effects and proposed mitigation. The document also provided the next steps of the proposed project. The information was also couriered with the following: Hydro One memo to MNR, route selection rationale package, environmental effects and proposed mitigation package, and a cd containing the electronic versions.	MNR to follow up if they have any questions or require additional information or clarification on the project.

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19-Oct-12	Municipality of Clarington	Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) contacted Anne (Municipality of Clarington) regarding the unopen road allowance on Townline Road. Yu San asked for confirmation on the date and time for the February 2013 council meeting date and when the last date is for Hydro One to provide confirmation to be placed on the meeting agenda. Yu San updated Ann on the Class EA process and that the planned start of construction is still planned for March 2013.	Leslie (Municipality of Clarington) provided a response on October 29, 2012. Leslie indicated that the GP&A Committee is meeting on February 4 and 25, 2013. Council ratifies all recommendations of the GP&A Committee at Council one week later. Leslie requires confirmation that Hydro One will be in attendance 3 weeks prior. Yu San responded (October 29, 2012) and indicated that Hydro One would keep Leslie informed of the committee meeting date. Yu San mentioned that in the event of a Part II Order request, Hydro One would also like to know if there are any committee meetings between June and August 2013.
19-Oct-12	Municipality of Clarington	Faye Langmaid	Marylana Stea	Email	Marylana (Hydro One) informed Faye that the report produced following the September 11 meeting with the community was made available. A link was provided to retrieve the report.	
22-Oct-12	MNR	Danielle Aulenback	Yu San Ong	Email	Danielle (MNR) confirmed that she received the information and maps that Yu San provided on October 18, 2012. The concern MNR has is with butternut and it has been forwarded to their forester to review the documents and provide comments.	Yu San followed up from Danielle's email and asked MNR to confirm that Bohdan is the only MNR contact person on this project. Danielle confirmed (October 24) that Bohdan is the contact.
23-Oct-12	CLOCA	Warren Coulter	Sarah Cohanim	Email	Sarah (Hydro One) provided Warren with the information that was sent to MNR regarding the Clarington TS project. The information outlined the environmental effects and suggested mitigation measures for specific impact zones.	CLOCA to inform Sarah if they have questions or comments.
23-Oct-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) provided Warren with a copy of the revised fence line and grading for the northwest sector of the station. Doug indicated the fence was reconfigured to increase the distance between the station and the creek system.	
23-Oct-12	CLOCA	Warren Coulter	Yu San Ong	Email	Yu San provided Warren with an agenda for the meeting on October 26, 2012. The agenda will be the following: review comments on Hydro One deliverables submitted; updated grading plan provided on October 23, 2012; effects and proposed mitigation provided on October 23; and next steps.	
23-Oct-12	MOE	Dorothy Moszynski; Agatha Garcia Wright	Yu San Ong	Email	Yu San (Hydro One) followed up with the MOE and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	City of Oshawa	Susan Ashton; Gary Carroll	Yu San Ong	Email	Yu San (Hydro One) followed up with the City of Oshawa and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	CLOCA	Warren Coulter; Stefani Gauley; Ian Kelsey; Kathy Luttrell	Yu San Ong	Email	Yu San (Hydro One) followed up with CLOCA and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Ministry of Energy	Allan Jenkins; Hartley Springman	Yu San Ong	Email	Yu San (Hydro One) followed up with the Ministry of Energy and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	MNR	Bohdan Kowalyk	Yu San Ong	Email	Bohdan (MNR) contacted Yu San in regards to the plans Hydro One provided regarding the transmission lines alternatives. Bohdan indicated that the proposed Project affects key natural heritage features in the ORM and Greenbelt Natural Heritage System. These features are to be avoided by transmission projects "unless there is no reasonable alternative and any adverse effects on ecological integrity, features and functions are kept to a minimum. Before the proposal is accepted, the MNR wants to see whether Hydro One's consultations with the municipalities, conservation authority and the public result in agreement with the assessment of alternative 1 over alternative 3. Replacement for woodland removal will need to allow for full height growth of representative trees (30 metres) with a block width of at least 40 metres. An area of approximately 3 hectares is required for a remedial planting area.	
24-Oct-12	MNR	Melinda Thompson; Danielle Aulenback; Bohdan Kowalyk; Warren May; Debbie Pella Keen; Jackie Burkart	Yu San Ong	Email	Yu San (Hydro One) followed up with the MNR and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Municipality of Clarington	Patti Barrie; David Crome; Faye Langmaid; Tony Cannella; Leslie Benson; Carlo Pellarin; Anne Taylor Scott	Yu San Ong	Email	Yu San (Hydro One) followed up with the Municipality of Clarington and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Regional Municipality of Durham, Health	Henry Tang	Yu San Ong	Email	Yu San (Hydro One) followed up with the Regional Municipality of Durham and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
25-Oct-12	MTCS	Laura Hatcher	Yu San Ong	Email	Yu San (Hydro One) contacted Laura to follow up and see if MTCS had a chance to review the documents submitted on the proposed Clarington TS project.	MTCS to follow up if they have any comments.
25-Oct-12	Municipality of Clarington	Faye Langmaid	Denise Jamal	Email	Faye (Municipality of Clarington) sent an email to Denise (Hydro One) regarding the community information meeting. Faye raised the point that some of the questions asked by the residents were not responded to and it was the Mayor's understanding that the answers would be addressed by Hydro One. Faye raised that the following questions have not been answered and if they will, how will they be addressed: "Why is this not a full Environmental Assessment?", "Transformer explosions? How many occur, what is the risk and what procedures, fail-safes are in place to address them?", "How are ground water issues being monitoring to ensure that no effects travel off-site?", "What is the rush? Has not be adequately answered; especially considering this proposal was not mentioned during the previous EA (2008) and the report you are relying on is from 2005." Faye further indicated that in the notes of meeting there is only one action for Hydro One to provide statistics about failures at the next PIC. Faye asked Denise why is there no action on the other questions.	
25-Oct-12	Municipality of Clarington	Faye Langmaid	Denise Jamal	Email	Denise (Hydro One) contacted Faye regarding her email on October 25, 2012. Denise noted that Hydro One intends to provide responses to all the action items on Hydro One's website and will email attendees of the meeting when they become available. Denise indicated that these response would be handouts at the next PIC and Hydro One will address the questions in the draft ESR. Denise provided Faye with information that Hydro One met with the leaders of the community on October 15 regarding site selection and suggestions brought forth by the community. The minutes from the October 15th meeting were attached.	

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26-Oct-12	MNR	Bohdan Kowalyk	Doug Magee	Email	Doug (Hydro One) wrote back to Bohdan's email dated October 24, 2012. Doug indicated that Hydro One is aware of the ORM and GB designations and has discussed the designations with Durham Region and the Municipality of Clarington. Durham Region deferred the decisions making to Clarington regarding EA consultation and Clarington is relying on the input and advice from CLOCA regarding the environmental components of the project. CLOCA has received all of the same information of the MNR. Doug indicated that in the evaluation of alternatives, besides environmental effects, Hydro One also has to consider the technical and social environment. Doug indicated that after the meeting with CLOCA, he would be in contact with Bohdan regarding the remediation.	Doug to follow-up with Bohdan following the CLOCA meeting on October 26, 2012.
26-Oct-12	MTCS	Rosi Zirger	Yu San Ong	Email	Rosi (MTCS) contacted Yu San and indicated that the project had been passed back to her to review. Rosi indicated that should be able to provide comments on October 29, 2012.	
29-Oct-12	CLOCA	Warren Coulter	Yu San Ong	Email	Yu San (Hydro One) sent Warren a spill containment animation that illustrates how the spill containment system functions.	
31-Oct-12	CLOCA	Warren Coulter	Yu San Ong	Email/Courier	Yu San (Hydro One) sent Warren a copy of the geotechnical investigation report.	
1-Nov-12	All Agency Contacts	All Agency Contacts	Yu San Ong	Email	Yu San (Hydro One) provided a notification letter regarding PIC#2.	
1-Nov-12	Municipality of Clarington	Faye Langmaid	Denise Jamal	Email	Denise (Hydro One) advised Faye that Hydro One staff was hand delivering notices to the area residents today (November 1, 2012). She provided the advertisement of PIC#2.	
2-Nov-12	AANDC	Allison Berman	Yu San Ong	Email	Allison indicated that AANDC does not participate in EA projects off-reserve, nor does the department track proponents who carry out their consultation off-reserve. Allison further stated to remove AANDC from public notification for projects that do not intersect with reserve lands.	Hydro One to remove AANDC from project contact list.
2-Nov-12	MTCS	Rosi Zirger	Yu San Ong	Email/Phone Call (November 1, 2012)	MTCS sent Hydro One a letter in regards to their comments from Hydro One's October 17, 2012 submissions on cultural heritage resources. MTCS had the following comments: <ul style="list-style-type: none"> <li>the checklist Screening for Impacts to Built Heritage and Cultural Heritage Landscapes indicates the adjacent property contains buildings or structures that are over 40 years old, indicating that further study is required;</li> <li>the cultural heritage resources excerpt of the Draft ESR with the heritage properties map indicates the presence of recognized and potential cultural heritage properties adjoining or near the site. The map does not correctly reflect the boundaries of the listed properties as they appear on a heritage inventory map from Heritage Oshawa;</li> <li>at least two properties identified on the heritage inventory border on Townline Road; and</li> <li>a Heritage Impact Assessment (HIA) is recommended for the project</li> </ul> MTCS also asked for confirmation that all the Archaeology Assessments have been submitted to MTCS. Yu San indicated that the initial Stage 2 and Stage 3 have been submitted and received by MTCS.	Hydro One to respond to MTCS requests.
2-Nov-12	Nav Canada	Paul Pinard	Yu San Ong	Email	Paul (Nav Canada) asked Yu San if Hydro One could submit a land use submission form for the project.	Yu San followed up and indicated that when final design is complete, Hydro One will submit a land use submission form.
5-Nov-12	MTCS	Rosi Zirger	Yu San Ong; Brian McCormick	Email/letter	A response letter was sent on November 5 to MTCS to reaffirm Hydro One's position on conducting heritage assessment on privately owned properties, to confirm an assessment of visual effects as part of the Class EA process for the proposed project to address the cultural heritage landscapes, as well as to clarify the Class EA requirements related to archaeology and heritage assessments. A follow-up meeting has been scheduled for November 12 to further discuss the proposed project and the next steps.	
13-Nov-12	All Agency Contacts	All Agency Contacts	Yu San Ong	Email	Yu San (Hydro One) provided notice of completion of proposed project and released the draft ESR for 30 day review.	
13-Nov-12	MTCS	Rosi Zirger; Paula Kulpa; Karla Barboza	Yu San Ong; Brian McCormick; Kimberly Miller-Bautista; Doris Chee	Meeting	At the meeting, Brian McCormick provided a project overview and the EA requirements regarding heritage and archaeological studies. Rosi discussed the archaeological studies at the site and how to process an expedited review for the archaeological studies. Paula indicated that it is MOE's requirement to have the archaeological studies completed as part of the Class EA process. Rosi and Brian discussed heritage and the letters between Hydro One and MTCS. Rosi discussed heritage requirements and the heritage studies that were completed for the Bruce x Milton project. Doris and Paula discussed visual analysis and public involvement. During the meeting, Karla indicated that the proposed mitigation addressed the natural linkage and not cultural heritage of the property. MTCS asked for Hydro One's comments on the topics discussed at the meeting and Hydro One will continue to work closely with MTCS throughout the project.	A letter was sent on November 29, 2012 discussing Hydro One's stance on HIA.
13-Nov-12	MTCS	Rosi Zirger	Yu San Ong	Email	Based on the November 13, 2012 meeting between Hydro One and MTCS, MTCS indicated that they were only in receipt of the Stage 3 report. Yu San forwarded the confirmation of receipt regarding the Stage 2 Archaeological Assessment Report.	
14-Nov-12	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Yu San (Hydro One) provided an update to Faye regarding consultations with CLOCA and information on deliverables previously provided. Yu San provided updated information on the deliverables which included the effects and proposed mitigation; revised deliverable 2; geotechnical investigation report undertaken for the station; video of the spill containment system.	
14-Nov-12	Nav Canada	Diane Levesque	Yu San Ong	Email	Diane provided Yu San the link for the Land Use submission form	Yu San to follow up with Transmission Lines Department to file.
14-Nov-12	Regional Municipality of Durham	Neil Henderson	Yu San Ong	Email	Neil asked for a copy of the display panels from the PIC.	Yu San responded on November 14 and provided a copy of the PIC panels.
14-Nov-12	TC	Environmental Coordinator	Yu San Ong	Email	Remove Monique Mousseau from mailing list.	
15-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Warren (CLOCA) provided additional comments from CLOCA's Natural Heritage Department regarding restoration opportunities and some of the deliverables provided. Warren indicated that his staff would like to do a site walk to review some of the headwater streams on the property and provide an opportunity for CLOCA's hydrogeology staff to visit the site.	
19-Nov-12	CLOCA	Warren Coulter	Doug Magee	Phone Call	Doug and Warren discussed the draft ESR and an upcoming site visit to discuss hydrogeology.	
20-Nov-12	CLOCA	Warren Coulter	Yu San Ong	Email	Yu San (Hydro One) provided Warren with a copy of the draft notes of meeting for his review.	

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23-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Warren (CLOCA) forwarded an email from the EEA to Doug regarding the recent creek crossing for the lines geotechnical work. Warren noted that the geotechnical company should be following the requirements laid out in the LOA and use timber mats as outlined by Hydro One.	Doug followed up with Warren on November 26 and indicated that all notifications have provided direction on who is to be contacted regarding the Project. Doug indicated he would visit the creek crossing and report back to him.
23-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Warren (CLOCA) followed up further to the site visit on November 22, 2012 and provided the draft watershed plan which outlines CLOCA's Natural Heritage System in further detail.	Doug (Hydro One) followed up on November 26 and indicated Hydro One did not obtain the layers as provided previously. Doug asked if he is able to obtain the layers under the existing data sharing agreement.
26-Nov-12	CEAA	Jim Chan	Yu San Ong	Email	Jim provided a response to Yu San's November 1, 2012 email of PIC#2. Based on the information provided to date, Jim clarified that CEAA 2012 does not likely apply to Hydro One's proposal as it is not described in the designated projects regulation and that Hydro One can removal CEAA from the project distribution list.	Yu San (Hydro One) followed up with Jim on November 20, 2012 and confirmed that CEAA will be removed from the project contact list.
26-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) followed up to Warren's November 15th email and indicated that a walk is feasible. He asked Warren to indicate a time.	Warren sent the layers on November 27, 2012.
27-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) provided Warren with an update to the geotechnical investigation that was just completed. Doug sent Warren the borehole logs from the latest geotechnical investigation.	
28-Nov-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug (Hydro One) followed up with Warren from his November 26, 2012 email with an update regarding the creek crossing that was completed for the lines geotechnical work. Doug provided pictures which show that neither the banks nor the bottom of the creek were affected. Doug asked if Warren had a chance to review the notes of meeting from the meeting held on site November 22, 2012.	
28-Nov-12	MTCS	Rosi Zirger; Paula Kulp; Karla Barboza	Yu San Ong	Email	Yu San provided the draft notes of meeting on November 13, 2012.	
29-Nov-12	MTCS	Rosi Zirger	Laura Rynard; Brian McCormick	Email/letter	A response letter was sent on November 29, 2012 regarding the November 13, 2012 meeting between MTCS and Hydro One. Brian indicated that Hydro One's position remains the same on the subject. Hydro One's position is that conducting any studies on privately-owned properties without consent is not appropriate and would be disrespectful to the interests of property owners. Hydro One will comply with the MTCS Standards and Guidelines "in the management of properties in our ownership or under our control." Brian further indicated that Hydro One is proposing a vegetation screening plan that mimics the existing hedgerows in the area and the plan will be finalized in consultation with affected property owners. Hydro One understands that the PPS addresses cultural heritage resources in Section 2.6; however, the requirement does not apply to infrastructure projects nor does it extend to studies on non-designated properties.	Rosi (MTCS) indicated that she would contact Hydro One if MTCS would like an additional meeting. MTCS is reviewing the draft ESR and will be providing comments within the 30-day review period.
29-Nov-12	Regional Municipality of Durham, Health	Karl Kiproff	Doug Magee	Email	Doug (Hydro One) followed up with Karl regarding the washrooms for the proposed Clarington TS. Doug indicated that the station will be equipped with two relay buildings and within each one will be located a washroom. Each washroom will have one electric toilet, one sink per washroom, leaching pit, and the average daily anticipated volume is 100 litres with a daily maximum of 200 litres. Doug indicated that Hydro One intends to apply for a Class 2 Sewage System permit.	
3-Dec-12	MOE	Dorothy Moszynski	Laura Rynard	Phone Call	Dorothy (MOE) left a voicemail on November 30, 2012. Laura (Hydro One) called Dorothy back to discuss correspondence with MTCS. Dorothy indicated she reviewed the draft ESR and was reviewing comments received from MTCS based on a conference call with them on November 30. Dorothy indicated she would get back to Laura within the week.	
3-Dec-12	Municipality of Clarington	David Crome	Doris Chee	Email/letter	Doris (Hydro One) provided Mr. Crome with an update on compensation for plan reviews. Doris indicated that Hydro One will compensate the Municipality of Clarington for the review of proposed plans for Clarington TS. The compensation will be based on the Municipal Site Plan fee of \$1291.00 + \$11/100 m2. Site plan approval is not required nor will an agreement be prepared and registered on title. Doris indicated the plans would be submitted when they are ready for review and comment. Doris offered to meet with Mr. Crome on December 5, 2012	
4-Dec-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug provided Warren with bore hole information with the ground elevations.	
5-Dec-12	Municipality of Clarington	Rick Pigeon	Doug Magee	Email	Doug (Hydro One) sent an email to Rick and provided details on the washrooms, leaching pits and electric toilets proposed at the site. Doug indicated that the intent is to supply water for washing only and there will be signs posted that the water is not for drinking. Doug mentioned that Hydro One's intent is to apply for a Class 2 Sewage System permit and to obtain approval from the Municipality of Clarington to bring in quantities of water sufficient for each washing facilities. Doug asked Rick if this system is doable and what Hydro One is required to undertake in order to obtain approval.	Doug to follow up with Rick regarding requirements.
7-Dec-12	CLOCA	Warren Coulter	Doug Magee	Email	Warren asked if Doug will be including in the ESR the updated borehole/monitoring well information in order to finalize his comments before the December 17 deadline.	
7-Dec-12	Regional Municipality of Durham, Health	Dianne San Juan	Yu San Ong	Email	Dianne posed questions for clarification before the submittal of review comments from the Regional Municipality of Durham. Questions concerning noise monitoring locations, and what is entailed with the groundwater monitoring program.	
12-Dec-12	MTCS	Rosi Zirger	Yu San Ong	Email	Yu San emailed Rosi with more information on the location of the access road to the station. Rosi replied on December 13, 2012 thanking Yu San for this information.	
12-Dec-12	Municipality of Clarington	David J. Crome	Community Relations	Letter	Clarington TS ESR review comments	
13-Dec-12	Regional Municipality of Durham, Health	Dianne San Juan	Yu San Ong	Email	Yu San responded to Dianne's questions regarding construction noise and groundwater monitoring.	
13-Dec-12	Regional Municipality of Durham, Health	Dianne San Juan	Yu San Ong	Email	Dianne replied to Yu San with follow-up questions about noise, groundwater monitoring and alert systems in the event of a spill.	
13-Dec-12	Municipality of Clarington	Faye Langmaid, David Crome	Yu San Ong	Email & attachments	Faye sent Yu San review comments on the draft ESR during the review period and Yu San replied on February 14, 2013 with Hydro One's response letter to their review comments.	Yu San responded December 14, 2012 acknowledging that the comments have been received.
13-Dec-12	MOE	Michael Harrison	Yu San Ong	Email	Yu San thanked Michael for his voicemail regarding the Clarington TS PIIO request. She asked to be updated if they receive anymore requests before the ESR review period ends.	
14-Dec-12	Regional Municipality of Durham, Health	Dianne San Juan	Yu San Ong	Email	Yu San responded, answering Dianne's follow-up questions from her December 13 email.	
14-Dec-12	MOE Central Region, Technical Support Section	Dorothy Moszynski	Yu San Ong	Email & attachments	Dorothy sent an e-mail with comments on the transformer station attached and also indicated that a hardcopy was sent in the mail. She also inquired about Hydro One's status regarding the concerns of the MTCS on the heritage potential of neighbouring properties.	Yu San replied to Dorothy on February 19, 2013 with Hydro One's response letter to the review comments and indicated that Hydro One is still working with the MTCS to resolve the outstanding issues.

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Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
17-Dec-12	CLOCA	Warren Coulter	Doug Magee	Email	Doug responded to Warren's December 7, 2012 email stating that the draft ESR will be updated with the new borehole information. Doug said he would provide Warren with the draft report from the geo-technical investigation soon and to make a note that he can give his final comments on the hydrogeology component after he has received it from us.	
17-Dec-12	CLOCA	Warren Coulter	Doug Magee	Email	Warren thanked Doug for the update in the December 17, 2012 letter and indicated that he will revise his comments accordingly.	
17-Dec-12	MTCS	Rosi Zerger	Yu San Ong	Email & attachments	Rosi (MTCS) attached MTCS comments and clarifications to the draft meeting notes.	
17-Dec-12	MTCS	Rosi Zerger	Yu San Ong, Laura Rynard	Email & attachments	Email from Rosi attaching the MTCS letter regarding the Clarington TS EA, and MTCS detailed comments on draft ESR.	
17-Dec-12	MTCS	Rosi Zerger	Laura Rynard cc: Yu San Ong, Brian McCormick	Email	Rosi responded with MTCS response to the letter from Brian (sent by Laura in a November 29, 2012 email). It references other emails sent that day with more information. Also noted meeting notes regarding the Bruce to Milton EA project discussed in a meeting with MTCS on November 13, 2012.	
17-Dec-12	MTCS	Rosi Zerger	Yu San Ong	Email	Yu San sent Rosi an email confirming three other emails were received that morning; Clarington TS - draft ESR review - MTCS comments, RE: Clarington TS - November 13, 2012 meeting with MTCS draft notes of meeting, and RE: Clarington Transformer Station - Hydro One - response to November 29 letter.	
19-Dec-12	Regional Municipality of Durham	Neil Henderson	Yu San Ong	Email & attachments	Neil sent a scan of their review comments on the draft ESR and indicated that a hardcopy will be sent in the mail.	
21-Dec-12	CLOCA	Warren Coulter	Yu San Ong, Doug Magee	Email	Email sent with CLOCA's draft ESR review comments attached.	Yu San replied to Warren on February 27, 2013 with Hydro One's response letter to the review comments.
30-Jan-13	Municipality of Clarington	Leslie Benson	Andrew Luis	Email	Andrew Luis (Hydro One real estate) contacted Leslie about a temporary road occupancy permit on the unopened Townline Road north of Concession Road 7. Leslie Benson called Andrew the same week and requested that Andrew follow up with her mid-March to initiate the renewal process for the permit.	
7-Feb-13	Municipality of Clarington	Faye Langmaid	Yu San Ong	Phone Call	Yu San and Faye discussed the project and Hydro One's response to their comments made during the review period.	
11-Feb-13	Municipality of Clarington	Faye Langmaid	Yu San Ong	Email	Faye indicated that she spoke with her director and the Mayor, they look forward to receiving Hydro One's letter acknowledging that the issues identified within the ESR will be addressed and a timeframe for doing so. Faye also indicated that she will get back to Adam from the MOE with whether their letter should be interpreted as a Part II Order request or not. Yu San replied on February 12, 2013 letting Faye know that Hydro One will send a response letter that week.	
12-Feb-13	Municipality of Clarington	Faye Langmaid	Yu San Ong cc: Laura Rynard	Email	Yu San replied to Faye's email from February 11, 2013 letting her know that Hydro One will send her a response letter to her review comments this week.	
14-Feb-13	Municipality of Clarington	Faye Langmaid, David Crome	Yu San Ong	Email	Yu San replied to Faye's email from December 13, 2012 with Hydro One's response letter to the Municipality's review comments of the draft ESR.	
19-Feb-13	MOE Central Region, Technical Support Section	Dorothy Moszynski	Yu San Ong	Email	Yu San replied to Dorothy's e-mail from December 14, 2012 with Hydro One's response letter to the Ministry's review comments, she also indicated that Hydro One will be working with MTCS to resolve issues with respect to the heritage potential of neighbouring properties.	
20-Feb-13	MOE Central Region, Technical Support Section	Dorothy Moszynski	Laura Rynard	Email	Dorothy informed Laura that they are satisfied with Hydro One's response letter to their review comments and that they have no further concerns. She also asked to be updated with any work done/issues resolved with the MTCS.	
20-Feb-13	MTCS	Rosi Zirger	Yu San Ong, Laura Rynard	Email	Rosi (MTCS) contacted Yu San and Laura replying to the e-mail that was sent to Dorothy Moszynski (Rosi Zirger was copied on this). Rosi wanted to confirm that Hydro One had received a few items from MTCS and that they are still waiting for a response from Hydro One.	
22-Feb-13	MTCS	Rosi Zirger	Laura Rynard	Email	Laura's replied to Rosi's e-mail from February 20, 2013 indicating that Hydro One will respond to their comments on the draft ESR within the coming week and offered to set up a meeting to discuss a restoration plan for the proposed site.	
26-Feb-13	CLOCA	Warren Coulter	Yu San Ong, cc: Laura Rynard	Email	Yu San contacted Warren asking for Chris Strand's (DFO) email address so the review comments response letter could be sent out.	
26-Feb-13	Regional Municipality of Durham	Neil Henderson	Yu San Ong	Email & attachments	Yu San replied to Neil's email from December 19, 2012 with Hydro One's response letter to Durham Region's review comments.	
27-Feb-13	CLOCA	Warren Coulter; cc: Adam Sanzo, David Crome, Chris Darling, Perry Sisson, Ian Kelsey, Diana Shermet, Kathy Luttrell, Bohdan Kowalyk, Warren May, Thomas Hoggarth, Chris Strand	Yu San Ong, cc: Doug Magee, Brian McCormick, Laura Rynard	Email	Hydro One response letter to the review comments provided by CLOCA. Note: Tom Hoggarth from the DFO (supervisor for Chris Strand) was contacted by phone (February 27,2013) as Chris Strand's email address could not be found. Since Chris will not have access to email until the end of March, Tom requested a copy of the letter be sent to him as well.	
27-Feb-13	Regional Municipality of Durham	<a href="mailto:info@durham.ca">info@durham.ca</a>	Yu San Ong	Email	Automatic reply to Hydro One's Durham review comments response letter. Automatic reply noting that the email will be forwarded to the appropriate personnel within two business days.	
28-Feb-13	CLOCA	Warren Coulter, cc: Ian Kelsey	Yu San Ong, cc: Laura Rynard	Email	Response from Warren to Yu San's February 26, 2013 email regarding Chris Strand's contact information. Warren informed us Chris is no longer at DFO in Peterborough, and recommended sending it to Tom Hoggarth and/or Caroline Stickle.	Yu San responded the same day.
28-Feb-13	CLOCA	Warren Coulter, cc: Ian Kelsey	Yu San Ong, cc: Laura Rynard	Email	Yu San responded to Warren notifying him that the review comments response letter has also been sent to Tom Hoggarth (DFO) as well as Chris Strand.	
28-Feb-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard, cc: Brian McCormick, Denise Jamal, Yu San Ong	Email	Laura sent an email to Neil to summarize and follow-up on a phone conversation on February 28, 2013. Copies of the Part II Order request letters received and Hydro One responses (when ready) will be provided to Neil. Part II Order requests approval and timelines were discussed, as well as the final ESR, Individual EA requirements and timelines and public concerns.	
28-Feb-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email	Neil responded thanking Laura for her email and links to more information on Part II Order requests from the MOE.	
6-Mar-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email & attachments	Laura sent an email to Neil with the attached copies of the Part II Order requests.	
6-Mar-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email	Neil replied to Laura's email from March 6, 2013 confirming that Hydro One will be sending him the Hydro One responses to the Part II Order Requests when they are completed.	Laura replied the same day, noting the responses will be sent once available.



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Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
6-Mar-13	MTCS	Rosi Zirger	Laura Rynard cc: Brian McCormick, Yu San Ong	Email	Laura sent another email (after February 22, 2013) with Hydro One's response letter to the review comments received from MTCS. She also indicated that Hydro One has an HIA and will provide it to her upon completion.	Provide Rosi with HIA
7-Mar-13	MTCS	Chris Schiller cc: Paula Kulpa, Karla Barboza	Laura Rynard cc: Yu San Ong	Email & attachments	Laura sent Paula, Karla and Chris an electronic copy of Hydro One's response letter to the draft ESR review comments from MTCS.	
12-Mar-13	MOE	Adam Sanzo	Laura Rynard cc: Brian McCormick	Email & attachments	Laura sent Adam pdf copies of the final response letters (excluding four responses; to Mr. Cory Tait, Mr. and Mrs. Leger, the Enniskillen Environmental Association, and Ms. Pellerin and the students). She noted hardcopies of all the letters will be sent to the MOE once all letters have been finalized.	
18-Mar-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email	Neil followed up to his March 6, 2013 email, wondering about the status of the Part II Order response letters. He also asked how large the Clarington TS property is.	
20-Mar-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email	Laura replied to Neil's March 18, 2013 email, noting the responses have started to be sent out and once all are ready we will provide Neil with a copy. Laura also provided the size of the property and the size the proposed station is to be.	
21-Mar-13	Regional Municipality of Durham	Neil Henderson	Laura Rynard	Email	Neil sent Laura email indicating that Doug Taylor and the EEA will be appearing as delegations to an April 3, 2013 Regional Council meeting. They will also be attending upcoming Municipality of Clarington and City of Oshawa Council meetings to ask for support for their Part II Order request. Neil also shared the following link: <a href="http://www.durhamregion.com/news/article/1594586-residents-fear-walkerton-water-crisis-in-durham">http://www.durhamregion.com/news/article/1594586-residents-fear-walkerton-water-crisis-in-durham</a>	
21-Mar-13	MOE	Adam Sanzo	Laura Rynard	Courier	Laura sent Adam Sanzo a package of the response to all of the Part II Order requests that were received.	
12-Apr-13	Regional Municipality of Durham	Neil Henderson	Doug Magee	Email	Doug sent the first submission of information requested - geotechnical reports.	
8-Apr-13	MOE	Adam Sanzo	Laura Rynard	Email & attachments	Adam sent Laura a copy of another Part II Order request letter from Carol/Dale Taylor.	
8-Apr-13	MOE	Adam Sanzo	Laura Rynard	Email	Adam asked if we had received Part II Order from Carol Taylor.	
15-Apr-13	Regional Municipality of Durham	Neil Henderson	Doug Magee	Email	Doug sent the second submission of information requested; it included the rationale for station location, conformance to the ORMCP Section 41, difference between individual and class EAs, issue summary of oil/water separator and spill concern responses to public, groundwater issues responses to public, and information on Durham Official Plan conformity.	
15-Apr-13	Regional Municipality of Durham	Neil Henderson	Doug Magee	Email	Doug sent Neil animation of how a oil/water separator works.	
16-Apr-13	Regional Municipality of Durham	Neil Henderson	Doug Magee	Email	Doug sent Neil a link to the FTP site to view the Clarington Hydrogeologic and Hydrologic Report .	
18-Apr-13	MOE	Adam Sanzo	Doug Magee	Email	Letter providing reasons to why Hydro One requests that the Part II Order Requests be denied.	
23-Apr-13	CLOCA	Warren Coulter	Doug Magee	Email	Provision of Final Hydrogeological and Hydrological report.	
26-Apr-13	Regional Municipality of Durham	Brian Bridgeman	Denise Jamal, Doug Magee, Brian McCormick	Email & attachments	Brian Bridgeman sent Randy Church an unsigned copy of the staff report, including letters sent to Hydro One on the draft ESR from Clarington, CLOCA, and Durham Region.	
28-Apr-13	Regional Municipality of Clarington	Brian Bridgeman	Denise Jamal, Doug Magee, Brian McCormick	Email & attachments	Randy Church forwarded April 26, 2013 email from Brian Bridgeman and report prepared by Durham Commissioner of Planning and Economic Development and Works Committee to Denise Jamal, Brian McCormick, Doug Magee, and Matey Matev. Randy requests to meet and discuss the May 2, 2013 Joint Committee meeting.	
1-May-13	MOE	Adam Sanzo	Doug Magee	Email	Adam requested Geo-technical reports and the Hydrogeologic and Hydrologic Reports.	
2-May-13	MOE	Adam Sanzo	Doug Magee	CDs	Reports couriered.	
8-May-13	MOE	Adam Sanzo	Doug Magee	Email	Confirmation submission received.	
28-May-13	MOE	Adam Sanzo	Doug Magee	Email	Question from MOE regarding ESR on station size and answer.	
29-May-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested mapping of existing lines.	
29-May-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided mapping of existing lines to MOE.	
31-May-13	MOE	Adam Sanzo	Doug Magee	Email	MOE had a number of clarification questions regarding ESR.	
3-Jun-13	CLOCA	Warren Coulter	Doug Magee	Email	CLOCA clarified to MOE that there are no well head protection areas within CLOCA Source Protection Area. All Municipal drinking water comes from Lake Ontario.	
5-Jun-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested a site visit.	
6-Jun-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided answers to questions regarding the ESR.	
13-Jun-13	MOE	Adam Sanzo	Denise Jamal	Email	Clint Cole (EEA) wrote to Adam regarding activity on the Clarington TS site. Requested to be kept updated on the review process.	
13-Jun-13	MOE	Adam Sanzo	Denise Jamal	Email	Adam replied to Clint Cole (EEA) confirming activity on site.	
13-Jun-13	MOE	Adam Sanzo	Denise Jamal	Email	Clint Cole (EEA) responded to Adam's reply, requesting data and information on sediment ponds and flow distribution.	
19-Jun-13	MTCS	Rosi Zirger	Doris Chee	Email/letter	Submitted HIA to MTCS.	
24-Jun-13	CLOCA	Warren Coulter	Paul Dalmazzi	Email	Clarington TS Draft Habitat Creation and Visual Screening Plan (maps and accompanying spreadsheets) were provided to CLOCA for review and comment ahead of a meeting to discuss.	
3-Jul-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested to respond to EEA questions regarding fisheries.	
3-Jul-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to MOE regarding clarification of Chapter 1 of ESR.	
8-Jul-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to MOE request regarding EEA fisheries request.	
8-Jul-13	CLOCA	Warren Coulter	Paul Dalmazzi	Email	CLOCA provided initial comments on Hydro One's draft Habitat Creation and Visual Screening Plan, and offered a meeting to discuss further.	Meeting to discuss the draft Habitat Creation and Visual Screening plan will be held between Hydro One ES&A and CLOCA, date currently to be determined.
8-Jul-13	CLOCA	Warren Coulter	Doug Magee	Email	CLOCA responded to MOE and EEA regarding the DFO Agreement.	
8-Jul-13	CLOCA	Gayle Soo-Chan via Warren Coulter	Doug Magee cc: Paul Dalmazzi	Email/Letter	CLOCA (Gayle Soo-Chan) provided comments on the draft Hydrogeologic and Hydrologic Report compiled for Hydro One by Stantec. The letter with comments was dated May 8, 2013 but the email was sent to Hydro One on July 8, 2013.	Meeting to discuss the draft Hydrogeologic and Hydrologic Report and CLOCA's comments will be held between Hydro One and CLOCA, date currently to be determined.
9-Jul-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided summary of revisions to draft ESR Sections 1.0-1.3 and 2.4.	
12-Jul-13	CLOCA	Warren Coulter/Diana Shermet	Paul Dalmazzi	Email	Hydro One thanked CLOCA for their comments on the draft Habitat Creation and Visual Screening Plan and responded to CLOCA's offer to meet and discuss the plan and CLOCA's comments.	Meeting to discuss the draft Habitat Creation and Visual Screening plan will be held between Hydro One and CLOCA, date currently to be determined.
17-Jul-13	MTCS	Rosi Zirger	Doug Magee	Email/letter	Hydro One received comments from the MTCS on HIA report. The MTCS maintained their position that the HIA is part of the Class EA process and should include adjacent private properties.	

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Date	Agency	Agency Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
12-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested for MTCS correspondence.	
12-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE provided EEA with an Independent Review of Hydrogeologic and Hydrologic Report.	
12-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested implications to Clarington regarding Pickering NGS extension.	
14-Aug-13	MOE	Adam Sanzo	Paul Dalmazzi	Email	MOE requested CLOCA's comments for the Stantec Hydrogeologic and Hydrologic Report.	
15-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided MTCS correspondence to the MOE.	
15-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided CLOCA's comments regarding the Hydrogeologic and Hydrologic Report.	
15-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE provided questions from technical staff regarding transformer size and capacity.	
15-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided MTCS correspondence to MOE.	
16-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested all MNR correspondence.	
19-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided all MNR correspondence to MOE.	
19-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to technical questions from MOE staff.	
19-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested MNR's position on the project. MNR never provided a formal review.	
19-Aug-13	MNR	Bodhan Kowalyk	Doug Magee	Email	Hydro One requested, on behalf of MOE, that the MNR provide their formal comment on the ESR.	
21-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE asked for revised construction schedule once Hydro One had approvals, etc.	
21-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One provided revised schedule to MOE.	
22-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested confirmation on creek crossings - number and type.	
23-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to MOE, providing number and type of creek crossings.	
26-Aug-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to MOE regarding the effect that the Pickering NGS extension has on Clarington.	
28-Aug-13	MOE	Adam Sanzo	Brian McCormick/ Doug Magee/ Paul Dalmazzi	Email/Letter	Hydro One emailed Adam Sanzo (MOE Project Officer) a summary of Hydro One's comments on the Independent Review of the Stantec Hydrogeologic and Hydrologic Report that was commissioned by EEA.	
28-Aug-13	MOE	Adam Sanzo	Doug Magee	Email/Letter	MOE requested two higher resolution graphics.	
30-Aug-13	MOE	Adam Sanzo	Paul Dalmazzi	Email/CD	Hydro One provided higher resolution graphics.	
3-Sep-13	MNR	Bodhan Kowalyk	Doug Magee	Email	MNR responded to Hydro One and MOE for more focused review of ESR.	
4-Sep-13	MOE	Adam Sanzo	Doug Magee	Email	MOE requested specifics on offset of new 230 kV lines from existing 230 kV lines.	
5-Sep-13	MOE	Adam Sanzo	Doug Magee	Email	Hydro One responded to the MOE regarding the offset relocation of 230 kV lines.	
11-Dec-12	MOE	Dorothy Moszynski	Doug Magee	Phone Call	Dorothy (MOE) asked on behalf of Clarington if the ESR had been peer reviewed. Doug (Hydro One) stated that the 30-day review was a peer review by the public, non-government organizations, and government agencies.	

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Date	Government	Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
5-Apr-12	MPP Office	Peter for John O'Toole	Denise Jamal, Manager - Public Affairs	Telephone Call	Provided contact information and John will reach out to us if they want a briefing	
5-Apr-12	Municipality of Clarington	Heather for Mayor Foster	Denise Jamal, Manager - Public Affairs	Telephone Call	Asked for call back to establish meeting	
5-Apr-12	Municipality of Clarington	Joel Neal	Denise Jamal, Manager - Public Affairs	Telephone Call	Left voicemail to arrange a meeting	
5-Apr-12	Municipality of Clarington	Franklin Wu	Denise Jamal, Manager - Public Affairs	Telephone Call	Left voicemail to arrange a meeting	
5-Apr-12	Municipality of Clarington/Durham Region	Mary Novak	Denise Jamal, Manager - Public Affairs	Telephone Call	Left voicemail to arrange a meeting	
10-Apr-12	Municipality of Clarington	Mayor Foster & Council	Denise Jamal, Manager - Public Affairs	Letter	Project notification	Briefing to be set up - completed
13-Apr-12	Municipality of Clarington	Mayor Foster Councillor Novak Councillor Neal Faye Langmaid Leslie	Daffyd, Denise, Randy, Yu San Joe and Luisa (OPA)	Meeting at Muni office	Project briefing	
30-Apr-12	Municipality of Clarington	Mayor Foster	Denise Jamal	Telephone Call	Denise called the municipality to inform them that the project is moving forward and that Hydro One will be in the community to deliver notifications.	
3-May-12	City of Oshawa	Mayor John Henry and Council	Denise Jamal	Email	Denise (Hydro One) provided the elected officials of the City of Oshawa that Hydro One is initiating a Class EA and provided a notice of PIC#1.	
3-May-12	Municipality of Clarington	Mayor Foster; Councillor Novak; Councillor Neal; CAO	Denise Jamal	Email	Denise (Hydro One) provided the elected officials and CAO of the Municipality of Clarington that Hydro One is initiating a Class EA and provided a notice of PIC#1.	
23-May-12	MPP Office	John O'Toole	Daffyd Roderick	Meeting	Daffyd (Hydro One) met with Mr. O'Toole to discuss the proposed Project. Daffyd showed Mr. O'Toole the maps of the project, PIC panels, discussed the need and went through the differences between this project and the previous project planned for the area, Enfield TS.	Daffyd followed up with Mr. O'Toole after the PIC to see if he had any questions.
23-May-12	Municipality of Clarington, Councillor Ward 1; Durham Region, Regional Councillor Ward 1 & 2; MPP Office; Municipality of Clarington, Mayor	Joe Neal, Mary Novak, Sheryl Greenham, Adrian Foster	Hydro One TEAM	PIC Attendance		
29-Aug-12	City of Oshawa	Councillors	Denise Jamal	Email	Denise (Hydro One) provided information to the City of Oshawa regarding an upcoming Community Information Meeting in respect to the proposed Project.	
29-Aug-12	MPP Office	John O'Toole	Denise Jamal	Email	Denise (Hydro One) provided Mr. O'Toole with information that Hydro One is holding a community meeting with respect to the Clarington TS. The flyer and newspaper advertisement were attached in the email.	
29-Aug-12	Municipality of Clarington	Mayor Foster	Denise Jamal	Email	Denise (Hydro One) provided Mayor Foster with information that Hydro One is holding a community meeting with respect to the Clarington TS. The flyer and newspaper advertisement were attached in the email.	
19-Oct-12	MPP Office	John O'Toole	Marylena Stea	Email	Marylena informed the Mr. O'Toole that Hydro One has made available the report that was produced following the September 11 meeting with the comment. Marylena provided a link to where the Mayor could retrieve the report.	
19-Oct-12	Municipality of Clarington	Mayor Foster	Marylena Stea	Email	Marylena informed the Mayor that Hydro One has made available the report that was produced following the September 11 meeting with the comment. Marylena provided a link to where the Mayor could retrieve the report.	
1-Nov-12	City of Oshawa	Mayor John Henry and Council	Denise Jamal	Email	Denise (Hydro One) provided the elected officials of the City of Oshawa with the advertisement of PIC#2.	
1-Nov-12	MPP Office	John O'Toole	Denise Jamal	Email	Denise (Hydro One) provided Mr. O'Toole with the advertisement of PIC#2 and indicated that Hydro One was hand delivering notices to area residents today (November 1, 2012).	
1-Nov-12	Municipality of Clarington	Mayor Foster; Councillor Novak; Councillor Neal	Marylena Stea	Email	Marylena provided the Elected Officials from the Municipality of Clarington with the advertisement of PIC#2 and informed which dates the ad would be in the local papers.	
1-Nov-12	Municipality of Clarington	Councillor Novak	Denise Jamal	Telephone Call	Denise (Hydro One) returned Councillor Novak's call of October 31, 2012.	
6-Nov-12	Municipality of Clarington	Councillor Novak	Denise Jamal	Telephone Call	Denise (Hydro One) spoke with Councillor Novak about the proposed Project and the proposed mitigation for the project. The councillor expressed concern for neighbouring residents.	
7-Nov-12	Municipality of Clarington	Councillor Novak	Denise Jamal	Telephone Call	Denise (Hydro One) spoke with Councillor Novak about Townline Road and landscaping possibilities for the project.	
8-Nov-12	Municipality of Clarington	Mayor Foster; Councillor Novak	Hydro One Team	PIC Attendance		
14-Nov-12	All Government Officials	All	Denise Jamal	Email	Denise (Hydro One) provided notice of completion of proposed project and released the draft ESR for 30-day review.	
20-Nov-12	MPP Office	John O'Toole	Sent to Colin Anderson, OPA	Letter	Mr. O'Toole, provided the following comments and concerns: <ul style="list-style-type: none"> <li>• Concern on the rush of the \$270 million project as necessary because of the Pickering Nuclear Generating Station being closed</li> <li>• "Incurion of a major industrial land use into an environmentally sensitive rural community on the Oak Ridges Moraine."</li> <li>• Other areas zoned and designated for industrial development for a transformer station</li> <li>• Reports forecast that Pickering NGS will be operating until at least 2020</li> <li>• The closing of Pickering NGS is not a "sufficient reason for building this transformer station at this location and at this time"</li> </ul>	
14-Dec-12	MPP Office	John O'Toole	Yu San Ong	Letter	Part II Order request	Sent response letter
14-Dec-12	MPP Office	John O'Toole	Sent to Minister of Environment & Yu San Ong	Letter	Part II Order request	
17-Dec-12	MPP Office	Michael Harris	Sent to Minister of Environment (Yu San Ong was copied)	Letter	Part II Order request	

Clarington TS Final ESR - Consultation Log - Government Officials

Date	Government	Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
30-Jul-12	MPP Office	John O'Toole	Sent to Hon. Jim Bradley, Ministry of the Environment	Letter	Mr. O'Toole enclosed a letter that he received from his constituents living within the vicinity of the proposed project. He raised the following issues: <ul style="list-style-type: none"> <li>• "Lack of justification for the cost of this facility, especially in view of the surplus power available in Ontario"</li> <li>• "Environmental sensitivity of the lands in question, which are in the Oak Ridges Moraine and within the Greenbelt. The environmental risks include the possibility of the natural water supply being contaminated by leaks from the transformer site."</li> <li>• "Cherrywood, which would be more favourable because of site grading and access."</li> <li>• "The proposed site is described as being on a rolling hillside that will disturb almost 100 acres due to grading, access and ongoing site maintenance. This will affect wildlife, ponds and streams."</li> </ul>	
8-Mar-13	MPP Office	John O'Toole	Brian McCormick	Letter	Hydro One's response to the Part II Order request	
12-Mar-13	MPP Office	Michael Harris	Brian McCormick	Letter	Hydro One's response to the Part II Order request	

Clarington TS Final ESR - Consultation Log - Interest Groups

Date	Group	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
3-May-12	Friends of the Farewell	Libby Racansky	Yu San Ong	Email	Expressed interest to receive information through email and mail	Yu San sent a copy of the project to Libby via mail.
15-May-12	Oshawa Kicks Soccer	Will Thurber	Marylina Stea	Email	Will is the President of the Oshawa Kicks Soccer Club and is interested about the disposition and future plans of the hydro corridor that runs through Oshawa close to Winchester Road and the new HWY 407. He is interested in discussing the possibility of locating natural grass athletic fields underneath the transmission lines in the above noted space.	
17-May-12	Oshawa Kicks Soccer	Will Thurber	Maria Agnew	Email	Maria (Hydro One) provided Will with a copy of an information sheet, planning information form, and licence process timeline which provided him with details of how the process to access lands for soccer fields function.	Will to telephone Maria if he has further questions/concerns.
17-May-12	Oshawa Kicks Soccer	Will Thurber	Maria Agnew	Phone call	Maria (Hydro One) spoke with Will regarding his interest to utilize Hydro One's land for soccer fields. Maria indicated that Will to contact the municipality to secure a licence of land for recreational use. After this Hydro One would receive a submission.	
23-May-12	Oshawa Kicks Soccer	Will Thurber	Hydro One TEAM	PIC Attendance		
24-May-12	Friends of the Farewell; Veridian Connections	Libby Racansky; Craig; Jayde	Yu San Ong	Email	Provided panels that were presented to the public at the PIC on May 23, 2012	
31-Aug-12	Oshawa PUC Networks Inc.; Veridian Connections; Friends of the Farewell; Oshawa Kicks Soccer Club		Yu San Ong	Email	Yu San (Hydro One) provided Oshawa PUC Networks Inc., Veridian Connections, Friends of the Farewell, and Oshawa Kicks Soccer Club an advertisement for the upcoming community meeting on September 11, 2012.	
4-Sep-12	EEA	Stan Kuzma	Denise Jamal	Email	Stan contacted Denise (Hydro One) to inquire about the community meeting on September 11, 2012. Stan raised his concern about the timing of the presentation and wanted to ensure that the community had an opportunity to provide questions and points the community has prepared. Stan informed Denise that the community has decided on a name for their community group: The Enniskillen Environmental Association.	Denise responded to Mr. Kuzma and indicated that the doors will open at 6:30 to allow attendees to view panels from the last meeting. She indicated the timing of the meeting.
4-Sep-12	EEA	Clint Cole	Denise Jamal	Email	Denise (Hydro One) asked Clint if the EEA would be able to provide their suggested site locations in advance of the meeting.	Clint to speak with Jim and get back to Hydro One regarding the sites.
4-Sep-12	Enniskillen Environmental Association (EEA)	Stan Kuzma	Denise Jamal	Email	Stan contacted Denise asking if there will be representatives from OPA and OPG and that the EEA has questions. Stan also has requested for a copy of the letter of direction from the OPA sent to Hydro One and requested for contact information at OPA and OPG.	Denise provided a link to Hydro One's 2013/2014 Transmission Rate Application and a copy of the letter from OPA to Hydro One. Denise provided Stan with contacts at the OPA and OPG.
21-Sep-12	EEA	Clint Cole	Denise Jamal	Phone Call	Denise (Hydro One) spoke with Clint regarding the possibility of meeting the first week of October with the neighbours for Clarington. Clint indicated there would be about 4 - 5 of the community members in attendance at the meeting. Clint gave the suggestion of a church in Oshawa at Harmony Road and Highway 2.	Denise to follow up and see Church availability. Clint to confirm with Denise appropriate date to meet with Hydro One.
1-Oct-12	EEA	Clint Cole	Denise Jamal	Email	Denise (Hydro One) followed up with Clint Cole to see if the EEA has been able to determine a meeting date.	Clint followed up (October 1, 2012) with Denise and indicated that himself and another local resident cannot meet in the next couple of weeks due to their respective work schedules. He suggested Hydro One look at a date in the last week of October or first week of November.
5-Oct-12	EEA	Clint Cole	Denise Jamal	Letter	Denise (Hydro One) sent a letter to Mr. Cole regarding the meeting date on the project. Denise advised Mr. Cole that given the timelines on the project, Hydro One would not be able to meet later than the 24th of October in order to finalize the draft ESR. Denise provided a list of dates the Hydro One Team is available to meet, including the 11, 12, 15, 22, and 24.	Clint to provide Denise with a list of topics the community would like to discuss and a list of the sites the community would like Hydro One to consider in advance of the meeting.
10-Oct-12	EEA	Clint Cole	Denise Jamal	Phone Call	Denise (Hydro One) spoke with Clint regarding a meeting date for the EEA to meet with Hydro One staff. Clint has tentatively set October 22, 2012.	Denise to follow-up with Clint, see if OPG is available to attend the meeting and book a space for the meeting.
11-Oct-12	EEA	Clint Cole	Denise Jamal	Email/letter	In the email, Clint confirmed the 15th of October is the best date for a focus meeting. Clint has asked for the minutes from the September 11 meeting and a large scale site map of the proposed site with the facility overlay. In the letter, it was indicated that there are issues that still require to be addressed: the timeline for the ESR is "unrealistic and unnecessary as the process for identifying an economical and practical site has yet to be fully established and demonstrated to all stakeholders"; Pickering NGS has the potential to operate until 2020, why does construction need to begin in 2013 when it will only take 1 year?; lack of justification for cost; explanation of funding the project; information on a hydrological study; justification for building on environmental sensitive lands; consideration of alternative sites. Three sites were suggested by EEA: Cherrywood TS, Pickering NGS, and Whitby Transformer Station. EEA indicated that there are large parcels of flat land that border Lake Ontario between Pickering and Bowmanville that are available for use and will have no effect on human population where much of the land use is already zoned for industrial use and is very flat. It was suggested that a proposed facility should not be considered as a minor transmission facility, but a major facility under higher environmental scrutiny.	
12-Oct-12	EEA	Stan Kuzma; Clint Cole; Doug Taylor; George and Sally Hillis; Dineen Leger; Deb and Ron Vice; Debbie Gordon	Denise Jamal	Email	Denise (Hydro One) indicated to the EEA that Hydro One is available to meet at the Solina Town Hall basement on Monday, October 15, 2012 at 6:30pm. Hydro One will bring a large overlay of a similar looking station and provide it to the association at the meeting. Denise provided a proposed agenda.	
13-Oct-12	EEA	Clint Cole; Stan Kuzma, Jim Sullivan; Doug Taylor	Denise Jamal	Email/letter	EEA responded to Denise's communication on October 12, 2012 regarding the meeting on October 15, 2012. The residents raised the concern that they have not yet received the minutes from the September 11th community meeting and asked the reason for the delay. The residents indicated that the meeting "will hinge directly on answers to our questions from September 11. The larger issues you noted in your meeting agenda sent to us yesterday will require the whole community's attendance and their right to respond." The residents also asked Hydro One for the reason of urgency for the meetings to be held by the 24th of October.	Denise to follow up and provide the residents with a copy of the minutes from the September 11th community meeting.
15-Oct-12	EEA	Stan Kuzma; Clint Cole	Marylina Stea	Email	Marylina (Hydro One) indicated that Denise Jamal is out of the office and was responding to their email of October 13, 2012. Marylena provided the representatives with the proceedings from Hydro One's meeting with the community on September 11. Marylena indicated that in regards to the October 15 meeting planned, it is to meet with the EEA as community representatives to discuss their questions in more detail. The original agenda provided was based on recurring questions that Hydro One noted at both the PIC and community meeting. The meeting is still scheduled to take place this evening at 6:30 pm.	Stan and Clint to confirm the meeting will still be held by 2 pm.
15-Oct-12	EEA	Clint Cole	Denise Jamal	Telephone Call	Denise (Hydro One) and Clint spoke and indicated that the Enniskillen Environmental Association wants to meet this evening to discuss sites and site selection.	
15-Oct-12	EEA	Clint Cole; Jim Sullivan; Doug Taylor; Stan Kuzma	Hydro One TEAM + Joe Toneguzzo (OPA)	Meeting	Hydro One provided the following to the EEA: updated Conceptual Layout, Natural Heritage Features, Whitby TS and surrounding area map, Pickering NGS to Cherrywood TS corridor map, and OPA's evidence for Oshawa Area TS in support of Hydro One's 2013.2014 Revenue Requirement Application with OPA letters to Hydro One in October 2011 and January 2012. The following was discussed at the meeting: transmission network, integrated power system planning, need for Clarington TS, Pickering NGS, Cherrywood TS, area surrounding Cherrywood TS, Whitby TS and surrounding area, Wesleyville, Clarington site rationale, scope of Clarington TS, access roads, private well on Hydro One property, hydrology and hydrogeology, stray voltage, EMF, SF6, EA timeline and public consultation, ongoing public engagement and next steps.	Denise to provide notes of meeting to EEA.

Clarington TS Final ESR - Consultation Log - Interest Groups

Date	Group	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
15-Oct-12	Friends of the Farewell	Libby Racansky	Marylena Stea	Email	Marylena (Hydro One) emailed Libby that Hydro One would like to meet with Friends of the Farewell soon.	
23-Oct-12	Enniskillen Environmental Association	Clint Cole; Jim Sullivan; Doug Taylor; Stan Kuzma	Denise Jamal	Email	Denise (Hydro One) provided the EEA with a copy of the meeting notes that took place on October 15, 2012.	
23-Oct-12	Friends of the Farewell	Libby Racansky	Laura Rynard	Email	Laura (Hydro One) contacted Libby to set up a meeting with Friends of the Farewell and Hydro One's Environmental Services & Approvals group. Libby and Laura determined on October 30th at 6pm in Courtice to meet.	
24-Oct-12	Friends of the Farewell	Libby Racansky	Yu San Ong	Email	Yu San (Hydro One) followed up with the Friends of the Farewell and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Oshawa Kicks Soccer	Will Thurber	Yu San Ong	Email	Yu San (Hydro One) followed up with Oshawa Kicks Soccer and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Oshawa PUC Networks Inc.	Denise Flores	Yu San Ong	Email	Yu San (Hydro One) followed up with Oshawa PUC and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
24-Oct-12	Verdian Connections	Craig Smith	Yu San Ong	Email	Yu San (Hydro One) followed up with Verdian Connections and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
29-Oct-12	Friends of the Farewell	Libby Racansky	Laura Rynard	Email	Laura (Hydro One) contacted Libby to reschedule the meeting established for October 30th due to unsafe travel conditions. Libby to confirm is following week works for schedule.	
30-Oct-12	EEA	Doug Taylor	Denise Jamal	Email/Letter	Denise (Hydro One) received a letter from a member of the EEA. The member indicated that on they had suggested many times that Pickering NGS be the location for the proposed station. The member indicated that Pickering NGS is the best option as <ul style="list-style-type: none"> <li>• would save millions in costs;</li> <li>• land is available to build the proposed Project;</li> <li>• there is room in the existing corridor from Darlington for an additional 500 kV line;</li> <li>• entire infrastructure is already present; and</li> <li>• all that would be required would be disconnecting one system and hooking up another.</li> </ul> The member also indicated that in the event of a spill, it would affect the entire watershed and groundwater would be affected.	
1-Nov-12	All interest Group Contacts	All Interest Group Contacts	Yu San Ong	Email	Yu San (Hydro One) provided a notification letter regarding PIC#2.	
2-Nov-12	EEA	Clint Cole	Denise Jamal	Email	Denise (Hydro One) notified the EEA of PIC#2 and the provided a copy of the newspaper ad.	
2-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) indicated he had received the notice on the PIC. Doug raised the question if the first half of the PIC should be a continuation of the last meeting to answer the community's questions. Denise (Hydro One) indicated (on November 5, 2012) that the PIC facilities "one-on-one" discussions and gives all attendees an opportunity to address any specific questions they may have about the project. Denise indicated that Hydro One has taken into consideration the community's comments and will provide information on the issues raised at the September 11th meeting.	
4-Nov-12	STORM Coalition	Debbe Crandall	Denise Jamal	Email	The STORM Coalition met with local residents on November 5, 2012. Debbie requested a copy of the draft ESR to be sent to STORM to understand the project and "to get a clearer understanding of the local ecology within the larger Oak Ridges Moraine ecosystem." Denise (Hydro One) responded on November 5, 2012 and indicated that the draft ESR is not yet available, however our second PIC is being held on November 8, 2012. Denise directed Debbie to the project website and indicated that STORM would receive a copy of the draft ESR when it is made available.	Denise to send a copy of the draft ESR when available.
5-Nov-12	EEA	Clint & Catharine Cole	Denise Jamal	Email	Clint and Catharine Cole (EEA) raised the following questions: <ul style="list-style-type: none"> <li>• What is the chain of approval process and the associated timelines?</li> <li>• What other agencies or government bodies/offices are involved in terms of approval for financing and construction?</li> <li>• How can Hydro One justify the 2015 in service date? As their sources informed them that Pickering NGS will not be decommissioned before 2020.</li> <li>• What is Hydro One's financial business plan for the project?</li> <li>• Who is going to finance the project?</li> </ul> The email further asked for the actual construction estimate. The representatives from EEA provided further comments regarding the proposed Project: <ul style="list-style-type: none"> <li>• Hydro One did not give the "alternative sites" serious consideration and the technical explanations are insufficient</li> <li>• The OPA evidence "did not make rational sense, "is misleading, "not realistic," and "does not substantiate the risk of inadequate supply by early 2015.</li> <li>• Concern about drainage and impact of construction in the natural valley</li> <li>• Proposed Project will place water wells at risk for contamination.</li> </ul>	Hydro One to respond.
7-Nov-12	Protecting the Ridges	Debbie Vice	Denise Jamal	Phone call	Debbie indicated that Protecting the Ridges no longer exists.	Yu San to remove them from contact list.
8-Nov-12	EEA	Clint & Catharine Cole	Denise Jamal	Email	EEA would like the opportunity to provide feedback into the minutes from the September 11, 2012 meeting as they believe not all comments were captured at the meeting. The EEA expressed they have not received the letter from the OPA directing Hydro One to build the station and they are awaiting a response to Doug Taylor's letter.	Link to letter was sent September 4, 2012 to Stan Kuzma and on the October 15th meeting.
8-Nov-12	EEA; Friends of the Farewell		Hydro One Team	PIC Attendance		
8-Nov-12	Friends of the Farewell	Libby Racansky	Laura Rynard	Email	Libby indicated that she would be at the PIC early tonight to discuss her proposal on loggerhead shrike habitat.	Laura confirmed that her and her team would be there to meet Libby.
8-Nov-12	Friends of the Farewell	Libby Racansky	Laura Rynard; Doug Magee	Meeting	At the meeting Libby discussed opportunities for Hydro One to be involved in Friends of the Farewell opportunities which included a partnership program and a rehabilitation area for the loggerhead shrike. Hydro One representatives presented the proposed vegetative restoration plans for the proposed Project. Hydro One indicated they would consider Libby's proposals and would be in touch.	
14-Nov-12	All interest Group Contacts	All Interest Group Contacts	Marylena Stea/Yu San Ong	Email	Marylena/Yu San (Hydro One) provided notice of completion of proposed project and released the draft ESR for 30-day review.	
14-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) wrote an email to Denise at Hydro One. Doug is concerned that the transformers "will cause one massive explosion." Doug claims that "there isn't a containment system that has been built that will stand an explosion of the magnitude possible." Doug also asked, "how Hydro One will compensate the local residents for the financial losses that will be incurred when the site is built?" Doug indicated that compensation should be paid. Doug is also concerned about contaminants seeping into the ground and contaminating the ground water. Doug asked what Hydro One's commitment is when contamination will occur on the Oak Ridges Moraine. Doug asked for Hydro One "to draft up a proposal for the people". He stated, "we want to know that we and all of the affected people are protected before any shovel enters this sensitive ground."	Denise (Hydro One) responded to Doug on December 10, 2012.
19-Nov-12	EEA	Clint Cole	Denise Jamal	Email	Clint responded to Denise's November 19, 2012 (see response in Nov. 12, 2012 entry) email and stated "Yes, it remains very sensitive... that's why the Oak Ridges Moraine is protected!"	

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Date	Group	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
23-Nov-12	EEA	Clint & Catharine Cole	Denise Jamal	Email	The email was received in response to Denise's November 22, 2012 email (See response in Nov. 5, 2012 entry). Clint and Catherine expressed the following comments and concerns: <ul style="list-style-type: none"> <li>"Hydro One has not established that real need for this station to be built by 2015. Your timelines are needlessly artificial and questionable."</li> <li>"Where would the loss of 3,000 MW of power come from in 2015 with your current power generation capacity should Pickering nuclear power plant be shut down?"</li> <li>"How is it that a corporate the size of Hydro One can even begin to defend a decision to place a mega transformer station, approximately one hundred acres in size on the environmentally protected Oak Ridges Moraine by using the EA process"</li> <li>"We believe that Hydro One is abusing its exemption powers grossly! You now have the time to consider other site alternatives and have no further excuse not to."</li> <li>"I would suggest that you require bedrock to support such huge weighted structures? No bedrock was reached in your recent drilling samples. How will you address this critical lack of foundation platform support?"</li> <li>"This is such a poor site choice on so many levels! Your company needs to reassess its stubborn intent to make this site fit your future transmission requirements."</li> <li>Advise if there are other transformer station on the Oak Ridges Moraine</li> <li>"We further request that you forward the technical design drawings and specifications on the transformer units that you are planning to purchase from China for this site as well as the material data sheets for the actual transformer fluid to be used on those mega units. We are already concerned about the inherent quality of these manufactured units for our environment."</li> </ul>	Denise (Hydro One) responded on December 6, 2012: she indicated that Hydro One has not received any information from OPA or OPG regarding extended timelines surrounding the closure at Pickering NGS. Denise indicated that Hydro One owns and operates over 400 facilities in Ontario and that "Section 1.5 of the draft ESR describes the Class EA process and the likely associated permits, licenses and approvals that may apply to the proposed Clarington TS." Denise further mentioned that the recent geotechnical investigation at the site indicated the soil strength well above the necessary 150 Megapascal (MPa) that is required to support the station. Denise will courier a copy of the transformer manufacturer's technical designs for the transformers. The draft ESR is available for review, and Denise mentioned that if there are "concerns with the environmental information and mitigation measures that are noted in the report, you can raise them in writing to the Minister of the Environment."
26-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) indicated he visited the site and located springs on the Clarington TS property. Doug indicated that under Section 26 of the ORMCP Hydro One must conduct a hydrogeological evaluation.	Denise followed up on November 29, 2012 and indicated that Hydro One is defined as infrastructure, utility use as defined under Section 41 of the ORMCP, not development or site alteration. Since Clarington TS is not development or site alteration, Hydro One does not need to meet section 26 (3) & (4) under which a hydrological evaluation is required.
26-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) indicated he has been reading the ESR regarding the hydrology and the borehole sample sections. Doug indicated when he visited the site he was talking with the site monitor and the site engineer. Doug indicated the site engineer informed him of the borehole locations and the test well locations and a report will be provided to Hydro One with the hydrology and soil analysis. Doug was concerned that the information the site engineer discussed was not included in the draft ESR. Doug was inquiring to whom the information came from in the draft ESR and if he could receive a copy of the geotechnical report.	Denise followed up on November 29, 2012 and indicated that two sets of geotechnical investigations have taken place at the site. Denise indicated that providing the geotechnical report is not typically something that Hydro One provides. Hydro One will be able to confirm groundwater flow direction which you will find in the final ESR.
26-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) indicated that he spoke with representatives at CLOCA and mentioned there are springs on the property and he took a photo and sent it to CLOCA. He indicated that under Section 26 of the ORMCP, a hydrogeological evaluation must be conducted and to do otherwise would be out of conformity with the ORMCP.	Denise replied to this on November 29.
29-Nov-12	EEA	Clint Cole	Denise Jamal	Email	Clint and Catharine Cole (EEA) raised the following comments and questions: <ul style="list-style-type: none"> <li>Hydro One is choosing the finite interpretation of ORMCP to suit its needs rather than be accountable to the people that live in the community</li> <li>Why would you avoid conducting an actual and full hydrological evaluation?</li> <li>ORMCP legislation needs to close the loop holes that companies can take advantage and "you are not choosing to be cooperative because you don't have to"</li> <li>"Once again, we are being 'bullied' by Hydro One contrary to our rights and freedom to not have our human health jeopardized via our water supply in our own community and property that we live on."</li> <li>"Hydro One is also putting the local ecological environment at unnecessary risk above ground with this proposed project. Your ESR does not address this sufficiently as you claim it does. We will be making further submissions to support our position in the days ahead."</li> </ul>	
29-Nov-12	EEA	Doug Taylor	Denise Jamal	Email	Based on Denise's response on November 29, 2012 (see response in November 26, 2012 entry), Doug responded and indicated that they are very important to members of the EEA and what the site engineer was describing contradicts what Hydro One is reporting in the ESR. Doug is also interested on information who the contractor was on the first set of boreholes.	
1-Dec-12	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) followed up to Denise's response on November 29, 2012 to his email dated November 26, 2012. Doug indicated the Denise is misinterpreting Section 41, subsection 5. Doug indicated that "as a utility you must be able to demonstrate that all these provisions will have been met. The section 26 provisions regarding what is a hydrologically sensitive feature still applies."	Denise responded on December 6, 2012 to Doug's December 1, 2012 and November 29, 2012 email. Denise provided a summary of sections in the draft ESR to address comments. Denise referred him to Section 3.1; Section 4.8; and 7.2.
7-Dec-12	EEA	Doug Taylor	Denise Jamal, Marylena Stea	Email	Doug (EEA) wrote an email to Denise (Hydro One) regarding the soil samples in the ESR. Doug is inquiring about soil stability and especially who took the samples and which lab did the test.	
8-Dec-12	EEA	Doug Taylor	Denise Jamal	Email	Doug questioned the borehole drawings, found on pages 38-40 of the draft ESR. He requested information on groundwater depths. Doug contacted Marylena the same day about his request for data earlier this day since Denise was away.	Marylena responded on December 13, 2012 to Doug's December 8 email, answering questions regarding bore holes drawings, geotechnical investigations and hydrogeology.
17-Dec-12	EEA	Doug Taylor	Marylena Stea	Email	Doug (EEA) asked Marylena about data regarding three monitoring wells, hydrology, water flow and ground water.	
21-Dec-12	EEA	Doug Taylor	Denise Jamal	Email/Courier	Denise (Hydro One) indicated to Doug that he was being sent a copy of the geo-technical investigation for the station. She indicated that it is a technical document which is used to determine "such aspects as the engineering quality of the soil and design measures that need to be considered. Further it is also used to assess the hydrogeological makeup of the site and identify the specifics of any issues that may be encountered." Denise indicated that in relation to the document that Doug relay any questions to Doug Magee.	Doug (EEA) sent an email to Denise on January 8, 2013 regarding the Geotechnical Report. Doug indicated that he did not receive the full report.
21-Dec-12	EEA	Clint Cole	Denise Jamal	Phone Call	Clint (EEA) left a message for Denise regarding the project.	Denise followed up on December 31 and left a message with Catharine.
2-Jan-13	EEA	Doug Taylor	Denise Jamal	Email	Doug requests location of the three monitoring wells, as well as their elevations.	Denise replies on January 3, 2013 indicating that Doug Magee will be in contact with Doug Taylor regarding these questions.

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Date	Group	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
8-Jan-13	EEA	Clint Cole	Denise Jamal	Email	Clint (EEA) provided Denise with a reformatted electronic version of their Technical Analysis Report.	Denise (Hydro One) responded to Clint on January 10, 2013 and thanked him for the reformatted version. She indicated that Hydro One is unable to open the file as an error message has indicated that it is corrupted. Denise asked if Clint could check the file and re-send.
10-Jan-13	EEA	Doug Taylor	Doug Magee	Phone call	Doug Magee spoke with Doug Taylor over the phone about various issues including the geo-technical report.	Doug (EEA) emailed Denise the same day and indicated that in reference to his January 8, 2013 email, after speaking with Doug he realized that he did have the entire geotechnical report.
28-Jan-13	EEA	EEA Members	Mike Penstone	Hardcopy list of questions	Questions from EEA/MPP meeting included:  <ul style="list-style-type: none"> <li>- Why the rush to build?</li> <li>- The location on the Oak Ridges Moraine</li> <li>- Why on combined site 1A, 1B, 1C, and not attached site #2?</li> <li>- Pollution to water caused by lead plates used as transformer insulators</li> <li>- What will Hydro One do for lost wells when the area is contaminated?</li> <li>- What will Hydro One do in the event of a spill?</li> <li>- Actual cost of the project</li> <li>- Alternative sites</li> <li>- Depths of boreholes</li> <li>- Direction of hydraulic gradient</li> </ul>	
29-Jan-13	EEA	Doug Taylor	Denise Jamal	Email	MPP meeting, requested for test data and spec sheets on transformers.	
31-Jan-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) requested for specs and testing results, manufacturer and model number of transformers	Denise replied on January 31, 2013 stated she will look into requests.
1-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Spill, cost and risk management analysis done on this project, effect on aquifer, requested risk analysis.	
2-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) forwarded an article on Cherrywood TS oil spill incident in 2003 (response in progress).	
8-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) sent a follow up e-mail to Denise asking for responses to his questions.	Denise replied to Doug Taylor and Clint and Catharine Cole with answers on February 8, 2013.
8-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) replied to Denise's email (responding to his questions) and indicated that there were still some unanswered questions and that he would follow up after reading both emails again. He also had three other questions that are also on the hardcopy list of questions from the January 28, 2013 meeting.	
9-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) replied to Denise's email (responding to his questions) again after reading both emails and was unsatisfied with the answers given (in reference to his February 8, 2013 email above).	
12-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) sent a follow up email to Denise wondering about responses to his questions. He is also reminding us of our commitment to sending him the transformer manual.	Denise replied on February 12, 2013 to Doug's email noting an email was sent with answers, and a letter will be sent to follow-up regarding the questions from Queen's park. Clint and Catharine Cole, Stan Kuzma and gphillis@aol.com were also sent this reply.
13-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) received the disc with the specifications and is looking for a copy of the LAR program to be sent to him.	
17-Feb-13	EEA	Clint Cole	Denise Jamal	Email	Clint expresses his displeasure with the location of the Clarington TS development, and with the quality of responses to questions brought forward by Doug Taylor.	
18-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) requesting more information on 'new design' of the transformer oil containment system.	Denise responded on February 22, 2013 to both of these with one email giving details of the improved design.
22-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) sent a follow up email to Denise wondering if additional information was available for him regarding the transformer oil containment system new design.	
22-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Denise replied to Doug's email clarifying the information discussed at the meeting regarding the new containment system designs.	Doug (EEA) sent a response on February 22, 2013 insisting that the new design is not reliable.
23-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) is unhappy with Hydro One's previous response about the spill containment system. He discusses heat and explosions of transformers, related to spills.	
24-Feb-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) sent another e-mail in response to Denise's e-mail indicating that he is unsatisfied with her answers concerning the oil containment system and also asked about Hydro One's response from the page of questions from the meeting with MPP Harris.	
24-Feb-13	EEA	Stan Kuzma	Denise Jamal	Email	Discusses his displeasure with the project. No direct questions asked.	
24-Feb-13	EEA	Clint Cole	Denise Jamal	Email	Clint provided the following questions: <ul style="list-style-type: none"> <li>- Please explain how your new containment system will contain an explosion of a large (500-750 kV auto transformer) and prevent toxic chemicals from escaping when an unexpected failure occurs</li> <li>- Is it true that you still have transformer sites in Ontario that still need to be cleaned up from previous spills?</li> <li>- Can you guarantee that a spill will not occur on this proposed Clarington transformer site?</li> <li>- What transformer model, and its manufacturing company, is planned for this site and what transformer oil will be used? Please specify the manufacturer and part number for that oil product. Please include the associated MDS sheet for the designated oil.</li> <li>- What thickness and physical dimensions are the lead base plates that these transformers will be sitting on?</li> <li>- What stops the leaching process on these huge lead plates?</li> <li>- What would the estimated cost be to clean up this site if one of these (five in total planned ) mega transformer exploded? What have you budgeted for such a clean up?</li> </ul>	The MSD sheets were provided in the fall. All of these answers were responded to in the Part II Order Request response.
1-Mar-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) copied his February 8, 2013 email outlining three outstanding questions that were given in hardcopy format during the January 28, 2013 meeting. He was wondering when he can expect a response.	Denise responded on March 4, 2013 noting we will address these questions in a formal letter.
12-Mar-13	EEA	Doug Taylor	Community Relations (Marylena Stea)	Email	Doug (EEA) received our formal letter dated March 8, 2013. He expressed his dissatisfaction with the project, mentioning alternative sites which were deemed technically unacceptable, hydrogeology, groundwater depth, contaminants, spills, and drinking water. He noted that he believes 'this has become a fight for survival'.	
13-Mar-13	EEA and area residents	Clint Cole	Brian McCormick	Letter	Mailed Hydro One's response letter to Part II Order request.	
20-Mar-13	EEA	Clint Cole	Denise Jamal	Email & attachment	Clint Cole (EEA) attached a letter of request for funding for independent research. He requested this letter be forwarded to the appropriate personnel.	Denise replied on March 25, 2013 noting the letter was forwarded to the appropriate personnel.



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Date	Group	Community Representative	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
21-Mar-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) response to March 21, 2013 article. Expressed concern regarding transformer explosions, spill containment, and aquifer contamination. No direct questions asked.	
25-Mar-13	EEA	Clint Cole	Denise Jamal	Email	Clint responded regarding the request for independent research funding. He noted that he hoped a response would be given so the EEA could update members of Durham Regional Council at their meeting next week.	On April 4, 2013 Marylena emailed Clint Cole with a formal response letter from Hydro One attached about EEA's request for funding for independent studies.
23-Apr-13	EEA	Clint Cole	Denise Jamal	Email + Attachment	Email included report from Mayor Adrian Foster. It exhibited the Mayor's endorsement for serious concerns regarding the quality of Hydro One's ESR for Clarington TS.	
23-Apr-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) expressed disagreement with interpretation of ORMCP and is concerned with water seepage.	
23-Apr-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) indicated he was unsatisfied with the responses given to his questions regarding bore holes and hydraulic gradients. Repeats his questions in the email.	
9-Jun-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) proposed several question for Denise, regarding safety and operation of the Clarington TS.	
28-Jun-13	EEA	Clint Cole	Denise Jamal	Email	Clint requested information on water table depths since the installation of monitoring wells, as well as the GPS coordinates for each well and their respective elevations and drill depths. Also requested information on screening depths within the casings and how the well casing are designed.	Denise replied on July 3, 2013 Stating she will look into the request.
5-Jul-13	EEA	Clint Cole	Denise Jamal	Email	Clint responded to Denise's July 5, 2013 email, regarding OPA and IESO conversation about energy planning and infrastructure siting in Ontario. Clint stated he will attend with other association representatives.	
8-Jul-13	EEA	Clint Cole	Denise Jamal	Email	Clint was unsatisfied with the responses given to his questions, regarding surface ground water levels on the site, as well as the associations access to data. He questioned if monitoring wells have been checked by Hydro One Staff or a hired consultant, after installation. Requested to jointly meet on site to take any future readings of the four monitoring well ground elevations.	On July 15, 2013 Denise replied, ensuring that Hydro One has been monitoring the function and stabilization of the wells since March. Stated formal testing of depth and water quality have not begun. Denise suggested a delegate of the association be present for next sample taking in August.
10-Jul-13	Municipality of Clarington	Faye Langmaid	Denise Jamal	Email	Reply in response to July 8, 2013 email from Clint Cole to Denise. Faye indicated that the Mayor would like to be kept informed of further communications with the community group in relation to the questioning of the transparency of the process by the community.	
15-Jul-13	EEA	Clint Cole	Denise Jamal	Email	Clint requested a copy of the Hydrogeologic and Hydrologic Assessment Report, containing Figure 1: Schematic of Oak Ridges Moraine and Figure 2: Schematic of Proposed Clarington Transformer Station.	
13-Aug-13	EEA	Clint Cole	Denise Jamal	Email	Clint requested a follow-up on the progress of the Clarington TS project (he had not received any updates or replies since mid July 2013). Wished to be advised on when official surface water depth measurements on the sites monitoring wells will occur, in order to invite association member, Doug Taylor, to meet field staff on site to check water levels.	On August 15, 2013 Denise replied with proposed dates to meet on site (August 20/21 or September 3-6). Date agreed upon is September 4, 2013 at 9:00 a.m.
14-Aug-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) expressed concern with the required amount of water needed to be pumped and questioned the existence of a permit to pump. Questions regarding the number and location of sediment ponds and the type of filtered pumping station to be used.	Denise replied on August 15, 2013 that the Draft ESR does not state the requirement of a permit to take water (PTTW), but will obtain one if necessary. Geotechnical reports and the proposed grading of the site by engineering staff provided no indication that either a PTTW or any form of a sediment pond will be required for the management of water. Appropriate measure will be take where excess water is encountered.
17-Aug-13	EEA	Doug Taylor	Denise Jamal	Email	In response to Denise's reply on August 15, 2013, Doug (EEA) questioned the application of a permit to pump if no water problems are expected.	
9-Sep-13	EEA	Doug Taylor	Denise Jamal	Email	Doug (EEA) requested Doug Magee's (Hydro One) email address, in order to forward collected data.	Denise replied on September 9, 2013 with Doug Magee's email address.
12-Sep-13	EEA	Doug Taylor, Clint Cole	Doug Magee	Meeting	Doug (Hydro One) met on site with hydrogeologist and EEA to discuss proposed well monitoring program.	
22-Nov-13	EEA	Doug Taylor, Clint Cole	Denise Jamal	Email	Doug (Hydro One) sent monitoring program to MOE with expected commencement date for on site well installation.	
25-Nov-13	EEA	Clint Cole	Denise Jamal	Email	Clint confirming invite to site for monitoring well drilling but felt it was a premature expenditure when no decision has been made.	
28-Nov-13	EEA	Clint Cole	Denise Jamal	Email	Hydro One provided a response to Clint regarding premature expenditure for monitoring wells.	
6-Dec-13	EEA	Doug Taylor	Doug Magee	Email	Doug (EEA) emailed stated that the drillers, Stantec not Hydro One site supervisor would discuss results of drilling with him.	
10-Dec-13	EEA	Doug Taylor	Doug Magee	Email	Doug (Hydro One) provided a response to Doug (EEA) that this was agreed upon with he and Clint regarding the workers on site and that he or Paul would provide all that he needed.	
10-Dec-13	EEA	Doug Taylor	Doug Magee	Email	Doug (EEA) acknowledged his agreement with Hydro One.	
10-Dec-13	EEA	Doug Taylor	Doug Magee	Email	Doug (Hydro One) offered to meet Doug Taylor at the site on December 11, 2013 and to answer his questions.	
11-Dec-13	EEA	Clint Cole	Doug Magee	Meeting	Clint came onto the site at about 4:30. It was discussed how wells were drilled and Doug (Hydro One) showed Clint around and answered his questions regarding the drilling and monitoring.	
13-Dec-13	EEA	Doug Taylor	Doug Magee	Email	Doug (EEA) not meet at the site so Doug (Hydro One) emailed him known details he had requested regarding the well installation.	

\* The Enniskillen Environmental Association was formed on September 4, 2012. All previous comments from the members of the group are discussed under "Public"

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Date	Member of Public	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
3-May-12	Area Residents within 2 km of site	Hydro One Team	Flyer	Area residents within 2 kilometres of proposed project received flyer announcement of the notice of commencement and announcement of PIC#1.	
11-May-12	Resident	Marylana Stea	Telephone Call	Interested in Hydro One buying him out	
11-May-12	Resident	Rob Thomson	Meeting	Rob (Hydro One) met with Resident concerning the temporary access road. He was concerned about weeds and asked if Resident would be planting this year to prevent weeds growing.	
14-May-12	Resident	Doug Magee	Meeting	Doug (Hydro One) met with Resident at the property he currently farms (formerly owned by the Resident). He has agreed to cultivate the fields he farms until we are completed the geotechnical work. He has no issues with conducting an archaeological assessment for the work.	
15-May-12	Resident	Denise Jamal	Telephone Call	Denise left a voicemail for Resident to inform him of the project and invite him to the PIC.	
23-May-12	Resident	Hydro One Team	PIC Attendance		
24-May-12	Resident	Denise Jamal	Email	Denise (Hydro One) followed up with Resident regarding attending the PIC. Denise indicated that Hydro One will be setting up a community meeting and will be providing invitations through direct mailouts. Denise provided a conceptual map of the proposed station	
25-May-12	Resident	Rob Thomson	Email	Ron (Hydro One) thanked Resident for meeting with him on May 11, 2012. Rob suggested setting up another meeting in which Doris Chee (Hydro One) could attend to discuss landscape and screening alternatives. Rob noted he would also like to discuss the temporary access road during this meeting. Rob also shared information regarding Doug Magee's (Hydro One) correspondence with Resident regarding his agricultural use of the land and environmental testing to be carried out.	
28-May-12	Resident	Doug Magee	Telephone Call	Contacted by Resident noting that he wanted to be involved in further meetings with the Residents. Did not want to be part of any other group. Also wanted a contact in HO to register the company he work for as a contractor	
31-May-12	Resident	Doug Magee	Voice Mail	Resident would like to talk with Real Estate regarding the project.	Doug provided Rob Thomson Resident's telephone number
7-Jun-12	Resident	Rob Thomson and Doris Chee	Meeting	Discussed Townline Road as a potential temporary access road, and landscaping and screening alternatives.	
13-Jun-12	Resident	Denise Jamal	Telephone Call	Resident left a message for Denise on the Community Line.	
14-Jun-12	Resident	Denise Jamal	Letter	Denise (Hydro One) received a letter from local residents regarding the proposed transformer station. The residents voiced their concern and have asked Hydro One for the following information: an estimate for the cost of building the station, an outline of how the project will be funded, a comparison of the cost for a new station at Clarington to upgrade the existing site at Cherrywood, and an explanation of why the project is to be placed on the Oak Ridges Moraine within Ontario's greenbelt.	Denise (Hydro One) responded with a formal letter on July 17, 2012. See entry.
14-Jun-12	Resident	Denise Jamal	Telephone Call	Denise (Hydro One) spoke about the upcoming community meeting and that we would be in touch once a date is finalized. Resident indicated a few landowners will be providing a letter to their local MPP and suggested that Hydro One re-notify the community about the station as the resident feels most residents believe the EA is for Enfield TS.	
14-Jun-12	Resident	Rob Thomson	Email	Rob (Hydro One) sent an email to Resident regarding access roads. Specifically noting a larger land size would be necessary and proposed to purchase additional land.	
20-Jun-12	Resident	Doris Chee	Email	Doris (Hydro One) provided Resident with photos taken from his backyard into the Clarington TS site.	
20-Jun-12	Residents at PIC#1	Denise Jamal	Email	Denise (Hydro One) thanked the residents for their attendance and indicated that Hydro One is investigating comments and concerns raised at the meeting. Indicated would be in touch regarding the upcoming community meeting. If any member of the public has any further questions or would like to request a meeting, they are to let Denise know.	
21-Jun-12	Resident	Carrie-Lynn Ognibene	Phone Call	Resident informed Carrie-Lynn (Hydro One) that 25 residents met the previous evening and are requesting a copy of the orthophoto map illustrating the proposed Clarington TS site.	Yu San (Hydro One) sent Resident the table maps that were displayed at the PIC via courier on June 26, 2012.
11-Jul-12	Resident	Doug Magee	Phone Call	Doug (Hydro One) informed Resident of the Stage 3 archaeology that would be occurring on the property he rents. The archaeology will last a week and it is in an area of 75 square metres.	
16-Jul-12	Resident	Denise Jamal	Email	Denise (Hydro One) indicated to Resident that if he has any questions to contact Denise at her email address that she provided.	
17-Jul-12	Community	Denise Jamal	Letter	Denise (Hydro One) provide a response letter on July 17, 2012 to the community's June 14, 2012 letter and clarified that the proposed Clarington TS will not increase the amount of power generation produced within the province. Pickering NGS provides up to 3000 megawatts of generation to the local 230 kV transmission system and once this source of local generation is retired, existing transmission facilities in the area cannot reliably supply customers in Clarington and the east GTA. The current estimate for the project was provided and indicated the cost for the station would be included in Hydro One's transmission revenue requirement. Adding two 500-230 kV transformers and associated facilities at Hydro One's Cherrywood TS is not a technically viable option as the installation would result in short-circuit levels beyond the capabilities of the existing or new 230 kV breakers at the site, making this option technically infeasible and presenting a potential for equipment damage, system unreliability and an increased safety risk. The property was purchased in 1978 for the purpose of building a transformer facility that would support growing electricity demand. The site is ideal as Clarington TS requires a connection to both 500 kV and 230 kV lines, both of which are already located on the property.	Community responded with a formal letter on July 26, 2012. See entry.
26-Jul-12	Community	Denise Jamal	Letter	The community surrounding the proposed Clarington TS provided a response to Denise Jamal in her letter dated July 17, 2012. The main points touched on the following: cost, location, natural environment, contracting, timing and health. In relation to cost, the community raised points asking if the ratepayers of Ontario are aware of the proposed station and the costs associated; and the amount that would be required on this site to grade, level and clear on this site compared to flatter potential sites. In relation to location, the community is concerned about the proposed location being not suitable based on the site grade, facility access and proximity to residents; and why the Cherrywood transformer station site cannot be upgraded and the station be placed there. In relation to the natural environment, how is the station allowed to be constructed on the Green Belt and Oak Ridges Moraine; how can a station be placed on the Moraine if there is risk to the spill containment system leaking; and concerns about wildlife, ponds and streams. In relation to contracting, the community is concerned about the quality of Stantec's work as the Enfield TS EA was a poor production to the community's perspective. The community feels that the entire project appears to have been proposed all of a sudden and appears rushed through the planning and approval processes and as a result appears that Hydro One will spare no cost to make the site selection work in their favour regardless of the impact on the community. In relation to health, the community feels that the transformer station will pose a risk to health and the city of Oshawa's water supply.	
9-Aug-12	Resident	Denise Jamal	Email	Resident advised Denise (Hydro One) that he/she has reviewed his/her work schedule for the first week in September and indicated September 5 would work best. Resident requested for Denise to forward any Material Data Sheets for any fluids and/or chemicals that will be used for both the construction and subsequent operation of the proposed Clarington Transformer Station. The community would like to review them in sufficient time ahead of the September community meeting.	Provided MSDS for transformer oil
16-Aug-12	Resident	Denise Jamal	Email	Resident indicated to Denise (Hydro One) that September 11, 2012 is ok for the community meeting. The Resident indicated he had only contacted a few people to date and he will inform the rest of the community. He recommended hosting the meeting at Solina Hall and requested for information regarding the start time. He attached an edited copy of the last letter addressing the community's concerns.	Denise (Hydro One) contacted Resident on August 23, 2012 noting the Solina Town Hall was booked for the September 11th community meeting, with doors opening at 6:30. She noted Resident's letter had been received and Hydro One will respond to questions and concerns raised by the community at the upcoming meeting.

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Date	Member of Public	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
24-Aug-12	Resident	Denise Jamal	Phone Call	Resident called Denise (Hydro One) regarding the Clarington TS community meeting. Resident and Denise talked about community notification, the roster of speakers and format of the meeting, similar station types and the incident at Cherrywood involving a transformer oil leak. Clint remarked the community would like to include someone OPG to attend. Denise invited OPG's Director of Corporate Communications to attend. Regarding notification, Denise assured Resident that Hydro One will deliver community notices door to door and run a newspaper advertisement; Denise will be providing the community a list of meeting participants from Hydro One and OPA; Denise indicated that Parkway is a similar station type; Denise indicated that Hydro One will be able to speak to Hydro One's spill containment system.	
24-Aug-12	Resident	Denise Jamal	Email	Resident responded to Denise's August 23 email (see response in August 16 entry) by thanking her for the meeting confirmation and advising that Hydro One has arranged for a moderator/facilitator to be involved. Resident is interested in a detailed report from the community meeting regarding the discussions and concerns to be provided from the facilitator. Resident refreshed the discussions that him and Denise had on the telephone which included the documents involving the Cherrywood TS spill, the Hydro One staff attending the community meeting, physical location of an existing size transformer station, request for CLOCA, Municipality of Clarington, OPA, and OPG to be invited to the community meeting.	Denise (Hydro One) confirmed receipt of letter on August 28. Denise replied again on August 31, noting that meeting notices had been distributed. A link to pictures of a similar station was sent. Denise also confirmed Resident's address so a CD with the Enfield final ESR could be sent.
29-Aug-12	Area Residents within 2 km of site	Hydro One TEAM	Hand delivered/Canpar couriered letter	Advertisements and flyers for the community meeting on September 11 were provided to property owners within a 2 km radius of the proposed station either by hand delivery or by courier (on August 31).	
30-Aug-12	Resident	Denise Jamal	Email	Resident requested the letter from the OPA to Hydro One recommending to build the station and a copy of the draft ESR.	Denise (Hydro One) responded on August 30, 2012 noting the Enfield TS ESR will be sent tomorrow.
31-Aug-12	Resident	Yu San Ong	Email to Resident; Canpar courier to Resident	Advertisements for the community meeting on September 11 were provided to two Residents as they attended the PIC and are interested area residents.	
3-Sep-12	Resident	Denise Jamal	Email	Resident responded to Denise's August 31 (see response in August 24 entry) email, confirming his mailing address. Alternate site locations were also brought up, noting the group will want to discuss these at the September 11 meeting.	Denise (Hydro One) responded September 4. She noted a CD had been sent to Resident's attention. She asked if the group was able to share their suggested site locations in advance of the meeting.
6-Sep-12	Resident	Denise Jamal	Email	Resident responded to Denise's September 4 email (see response in September 3 entry), noting he would get back to her regarding their suggested alternative sites.	
11-Sep-12	Community	Hydro One TEAM + OPA	Community Meeting	Hydro One held a community meeting in Solina for the Community to address their concerns	
11-Sep-12	Community	Hydro One Team & OPA (Denise Jamal, Daffyd Roderick, Alicia Sayers, Randy Church, Doug Magee, Laura Rynard, Jeff Cridland, Rob Thomson, Luise Da Rocha, Joe Toneguizzo)	Community Meeting		
12-Sep-12	Resident	Denise Jamal	Letter	Resident provided Hydro One with a letter regarding her concern towards the Clarington TS. Resident indicated that she was advised by the Clarington Planning department that the property was located in the Greenbelt and adjacent to the moraine where nothing can be constructed. Resident is concerned that if the station is construction it will result in the complete loss of view; dramatic reduction in resale value of the property; years of construction noise, filth and activity; and arguable adverse health affects. Resident indicated she has two outstanding questions: 1) What does Hydro One plan on doing to rectify the loss of resale value to her home? 2) When did Hydro One enter into discussions with the Municipality of Clarington regarding the transformer station?	Responded October 24, 2012. See entry.
18-Sep-12	Resident	Denise Jamal	Phone Call	Resident called the Hydro One Community Line twice regarding the project (September 18 & September 25).	Denise called her back on September 18 & 25 and left messages in response to her inquiries.
19-Sep-12	Resident	Denise Jamal	Phone Call	Resident has approval to build a house on his land and is concerned about taller towers and wires running through his property as a result of the proposed station.	There will be no taller towers and additional lines running through his property.
25-Sep-12	Resident	Denise Jamal	Phone Call	Denise requested that Resident send his building plans to Hydro One so that real estate can evaluate whether or not they are in compliance. He inquired about Hydro One offering to purchase his property if his plans were not in compliance. Resident agreed to send his materials when they were ready.	
1-Oct-12	Resident	Laura Rynard	Phone Call	Laura (Hydro One) called Resident to talk about that active agricultural fields that he leases on Hydro One property. Laura inquired as to when Resident's crops would be harvested. Resident informed Hydro One that his soybeans would be off within a couple of days and the corn within the next 3-4 weeks weather depending. Laura indicated she wanted to advise him of upcoming geotechnical work on the property and will advise him of when the contractors will be on site.	Laura followed with Resident for timing of geotechnical work.
17-Oct-12	Resident	Laura Rynard	Phone Call	Laura (Hydro One) called Resident to talk about the corn fields on the Hydro One property. Laura indicated that geotechnical work would begin within 2 weeks and wanted to know the status of the corn fields.	Laura followed up in a week regarding harvesting season of corn.
19-Oct-12	Attendees of Community Information Meeting	Denise Jamal	Email	Denise provided the members of public who attended the community information meeting a copy of the meetings proceedings.	
24-Oct-12	Resident	Denise Jamal	Letter	Denise (Hydro One) provided a response to the Resident's original letter dated September 12, 2012. Hydro One indicated that the Municipality of Clarington was informed of the proposed Project in April 2012 and that the proposed Project's land use designation is "utility" and is a permitted use under the Regional Municipality of Durham Official Plan, Municipality of Clarington Official Plan, the ORMCP, and the Greenbelt Plan. In regards to the residents other concerns, Hydro One answered the following: <ul style="list-style-type: none"> <li>• A vegetative restoration and screening plan is under development;</li> <li>• Historically although property values may decline during the construction phase of a new TS, they typically return to market values consistent with other similar properties in the local area over time;</li> <li>• Hydro One understands that the construction of a new transformer station can be temporarily disruptive to people living in close proximity;</li> <li>• Transformer stations do not generally increase EMF levels, and the proposed Project will not increase the measurement of EMF that currently exists as a result of the existing transmission and distribution lines located on and adjacent to Hydro One's property.</li> </ul>	
24-Oct-12	Resident	Yu San Ong	Email	Yu San (Hydro One) followed up with Resident and provided the meeting proceedings of the Community Information Meeting and an updated project schedule.	
1-Nov-12	Area Residents within 2 km of site	Hydro One Team	Flyer	Area residents within a two-kilometre radius of the proposed Project area received hand delivered notices of PIC#2.	
2-Nov-12	Local Residents	Denise Jamal	Email	Denise (Hydro One) provided an email to all interested residents of a notice for PIC#2.	
8-Nov-12	Resident	Denise Jamal	Phone Call	Received a voicemail regarding the proposed Project. Has a property located on the 4th Concession near Rundle Road and wants to find out if property could be a proposed location for the proposed Project.	Denise to follow-up.
8-Nov-12	Local Residents	Hydro One Team	PIC Attendance		
15-Nov-12	Area Residents within 2 km of site	Hydro One Team	Flyer	Area residents within two kilometres of proposed project received flyer announcement of the notice of completion and the draft ESR for 30-day review.	



Clarington TS Final ESR - Consultation Log - Public

Date	Member of Public	Hydro One Representative	Form of Correspondence	Summary of Correspondence	Follow-up Action Required/ Follow-up Action Taken
9-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request (Mailed to Resident since we did not have Resident's address and the original email was sent to Resident)	
11-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
11-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
11-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
13-Mar-13	EEA and area residents	Brian McCormick	Letter	Mailed response letter to Part II Order request	
14-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
20-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
20-Mar-13	Resident	Brian McCormick	Letter	Mailed response letter to Part II Order request	
20-Mar-13	Kendron Public School (Terri Pellerin's grade 7 class)	Brian McCormick	Letter	Mailed response letter to Part II Order request	
31-Mar-13	Resident	Community Relations (addressed to Brian McCormick)	Email	Resident does not believe their concerns were fully addressed in the PIIO Response letter. Questions and comments regarding: - Why this station has to be built on the Oak Ridges Moraine - Does the LAR submitted by Hydro One not state that spillage occurs on a daily basis? - Where is the safety and data information about the "new and improved" containment systems that are being imported from China? - What Hydro One plans to do if well water is no longer usable. What is Hydro One going to do when a loved one is lost because of toxic spillage? - Refusal to fully explain why other existing facilities would not be acceptable	
8-Apr-13	Resident	Yu San Ong (Not specifically addressed to anyone)	Letter	Part II Order request . Dated December 7, 2012 but received from Adam Sanzo (MOE) by email on April 8, 2013.	

**Appendix B8: Draft ESR Review Period Comments and  
Hydro One Responses**

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December 12, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, ON M5G 2P5

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON M4V 1P5

**RE: HYDRO ONE NETWORKS INC. DRAFT ENVIRONMENTAL STUDY REPORT,  
CLARINGTON TRANSFORMER STATION PROJECT  
PLN 26.1.3.1 HYDRO ONE SUB-STATION AT ENFIELD**

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This Environmental Study Report (ESR) is unlike other ESR documents staff have reviewed. While the supporting document from Ontario Power Authority provides the rationale and justification for why the sub-station is required and the timing it does not, in our opinion, give Hydro One the ability to carry out a less rigorous process and provide a document which is essentially an "ESR Lite". A number of statements are made in the draft ESR that are based on other reports and background information, this information is not included in the documentation available to the public. The inclusion of traceable references advising where the information and supporting analysis could be found would be very helpful and is typically part of a draft ESR document.

Staff from various departments, have reviewed in detail the various documents available. We are not providing detailed comments on each document, rather we are providing general comments that we believe have not been adequately addressed and affect the overall implementation of the project and its impacts on the environment and community. These comments specifically relate to the proposed mitigation set out in the document and implementation steps. As an attachment we have also noted some specific deficiencies with the draft ESR.

In some cases the supporting documentation does not exist because Hydro One has chosen to not carry out the background work. This is particularly evident in the cultural heritage review and the exchange of comments between Hydro One and the Ministry of Tourism Culture and Sport. It is our understanding that this work is now underway but it is not clear how the mitigation for heritage features will be addressed in the draft ESR.

Had Hydro One undertaken the historical background work, there should have been a better appreciation for the residents, community and socio-economic effects of this project and Hydro One's presence in the community. A more meaningful and long term communications strategy working with the community needs to be part of the mitigation measures outlined on Pages 171 to 178. At a minimum, a Communications Plan for the construction phase should be a requirement of the EA approval of this project. Such a communications plan would include regular hand delivery of newsletters to residential mailboxes within the project study area for the duration of the construction schedule. This would be in addition to project website updates and notifications.

Reference is made to a "traffic management plan" in the mitigation measures. Such a plan should be developed in consultation with the Municipalities (Durham, Oshawa and Clarington) and include the interconnection of the construction schedule and impacts on local traffic for this project and the 407 East extension.

There are a number of detail mitigation items that have been discussed with the agencies and community but no reference to them are included in the mitigation measures other than very generalized statements. Given the lack of traceability in the documents we recommend that details of the mitigation be included in the measures to ensure that issues will be addressed as discussed during the PIC's and meetings with agencies. This would be particularly necessary for the mitigation of the impacts to the Oak Ridges Moraine and natural heritage features, including creek crossings and replacement plantings.

For example, one of the mitigation measures that is very important to the community is the use of the alternate entrance at Townline Road rather than the long laneway off of Langmaid Road. This should be noted as a mitigation measure and a commitment by Hydro One made to entering into a "road user agreement" with Municipality of Clarington and City of Oshawa (shared road).

Another example is with regard to berming and planting to assist in the screening of views of the sub-station, including plantings on private properties to assist with impacts to local resident's views and vistas. In addition, Hydro One has verbally committed to well monitoring to ensure that the project has no impacts on residential wells. These commitments should be included in the draft ESR.

The Fire and Emergency Services Department have indicated that on-site fire suppression and rescue should be carried out by Hydro One forces given the specialty equipment and electrical hazards. Fire and Emergency Services are willing to work with Hydro One to provide specialty training for their crews in the same manner as backup is provided to Ontario Power Generation crews at the nuclear plant. An Emergency Plan should be prepared that meets with DEMO's and Clarington's approval; again this should be included in the mitigation measures.

Should you have any questions with regard to these comments please contact Faye Langmaid, Manager of Special Projects.

Yours sincerely,



David J. Crome,  
Director Planning Services  
DJC:sn

cc: Mayor and Members of Council  
Franklin Wu, Chief Administrative Officer  
Patti L. Barrie, Municipal Clerk  
Gord Weir, Fire Chief  
Tony Cannella, Director of Engineering Services  
Andrew Allison, Municipal Solicitor  
Chris Darling, CLOCA  
John O'Toole, MPP



## Specific Comments on the Hydro One ESR for Clarington TS

- All maps are grainy and difficult to read
- Clarington Official Plan (2012)? – should be Clarington Official Plan 1996 (April 2012 Office Consolidation)
- The ESR tries to demonstrate that the need defines the location as the only alternative. Alternatives are discussed by the OPA in Appendix A – This should be discussed more fully in the main document. Further Section 2.4 discusses alternatives – but Appendix A information is not referenced. The Section 2.4 alternatives are an attempt to meet the ESR requirements.
- Clarify that the Oshawa Area TS is now referred to as Clarington TS
- 3.2.1 – this section says lands are within Greenbelt and ORM can be clarified by saying lands are partially within ORM and partially within Greenbelt – however, it needs to be clarified as to what the Official Plan designations and zoning are (i.e. lands are not zoned by the Regional OP)
- Identify number of acres lost to agricultural production
- Outline/highlight site on land use map
- Heritage resources are not addressed
- Copies of Archaeological studies have not been submitted to the Municipality and are not referenced
- Was acoustical study prepared by an acoustical engineer?
- MNR/MOE comments gloss over the fact that site is located in ORM
- MAH has commented that the EA must satisfy Section 41 of ORMCP – where are the discussion/findings that address the requirements?
- Pg. 80 – In the site plan preconsultation meeting we also discussed implementation of ORMCP policies – even though Hydro One is a utility we expected elements of the ORMCP to be addressed
- Pg. 103 – The ESR states that if the negotiation process doesn't pan out for the use of Townline Road, they will proceed off Langmaid – There needs to be commitments to mitigation measures and one of the them is bringing the access off of Townline Road, otherwise the commitments should be updated to address the Langmaid Road access and laneway
- Pg. 131 – 2<sup>nd</sup> bullet point – something is missing
- Generally, issues of cost and land acquisition and time are order of magnitude comments in ESR's not specific reasons
- Page 139 – Alternatives 1, 2 and 3 – all on the same site, not sure this meets the definition of alternatives under the EA Act
- Page 161 - 2 Commit to traffic management plan and emergency plan; this should be carried forward into mitigation measures
- Potential environmental effects, and recommended mitigation, restoration and compensation are lacking items such as a creek crossings, buffer zones, sediment and erosion controls, breeding bird survey, rehabilitation plans etc. are to be part of this document.

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

February 14, 2013

Mr. David J. Crome,  
Director Planning Services  
Corporation of the Municipality of Clarington  
40 Temperance Street  
Bowmanville Ontario, L1C 3A6

**RE: Clarington TS Class Environmental Assessment draft Environmental Study Report (ESR) –  
Clarington Planning Services review comments**

Dear Mr. Crome:

Thank you for your December 12 comments on the draft Environmental Study Report (ESR) for our proposed Clarington Transformer Station.

As indicated in **Section 1.1** of the draft ESR, Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to ensure there is a safe, reliable and continued power supply. To that end, the Ontario Power Authority has recommended that Hydro One develop an implementation plan to provide a corresponding amount of power to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and could be retired as early as 2015. Hydro One must be prudent and work towards a 2015 in-service date for the station.

In your letter, you provide general comments as well as specific comments. The attached table responds directly to your specific comments. Please find below responses to your general comments:

- 1) You express concern about Hydro One carrying out a less rigorous process and providing an “ESR Lite” for the proposed project.

The proposed Clarington TS falls within the definition of the Class Environmental Assessment (EA) for Minor Transmission Facilities (Ontario Hydro, 1992), which was approved by the Ministry of the Environment under the *Environmental Assessment Act*.

Hydro One has extensive EA experience and does not agree with the “ESR Lite” observation. Hydro One has fully complied with the approved Class EA process and provided significant opportunities for public and regulatory consultation.

In Hydro One's opinion and experience, the process carried out for the Clarington TS project is consistent with 100s of past projects and has been no less rigorous. The issues identified are also consistent with past projects.

- 2) You also indicate that other reports and background information were not included in the documentation available to the public. You mentioned that "inclusion of traceable reference advising where the information and supporting analysis could be found would be very helpful and is typically part of a draft ESR document."

The position that all technical studies be part of the ESR is not consistent with current EA practice and not a requirement of the approved Class EA. Technical reports are made available during the Class EA process on a selective basis but do not form part of the ESR documentation (i.e., they are intended for technical audiences only). To date, we have provided the technical reports to the residents when requested, however this is beyond our standard practice.

The purpose of the draft ESR is to summarize the Class EA process. Typical ESR contents are described in **Section 3.6** of the Class EA parent document. **Section 3** of the draft ESR is fully consistent with the parent document as well as with past practice. It describes the environmental features, including a summary of the relevant environmental data collected throughout the Class EA process.

Throughout the Class EA process, appropriate review agencies and the municipalities were consulted on the potential environmental effects identified through the research and surveys.

- 3) You also note that "in some cases the supporting documentation does not exist because Hydro One has chosen to not carry out the background work." and that it was unclear in the draft ESR how the mitigation for heritage features will be addressed.

Hydro One has provided numerous opportunities to discuss project effects and mitigation plans. The assessment is complete and there is no missing background information. As noted, it is not our practice to include detailed technical reports in EA submissions. The draft ESR is consistent with the approved Class EA process and current EA practice.

In terms of addressing mitigation for heritage features, Hydro One has consulted and will continue to work with the Ministry of Tourism, Culture and Sport (MTCS) throughout the project.

- 4) You suggest that "a more meaningful and long term communications strategy working with the community needs to be part of the mitigation measures on Pages 171 to 178 of the draft ESR" as well as including a Communications Plan for the construction phase.

Commitments are located elsewhere in the document. **Table 7-1** (pages 171 to 178) covers potential short-term and long-term environmental effects and their corresponding mitigation, it does not include information or commitments on ongoing public consultation and communications per se. The Class EA parent document also describes communications subsequent to the completion of the EA process, refer to **Appendix I** of Class EA parent document.

As a standard practice, Hydro One uses public information centres, websites and newsletters to communicate information during the construction phase. Email and other social media facilitate continuing two-way communications on the project.

- 5) With regards to the traffic management plan, you indicate that the plan should be developed in consultation with the Municipalities and include the interconnection of the construction schedule and impacts on local traffic for this project and the Highway 407 extension.

This is standard practice. Hydro One will be consulting with the municipalities regarding traffic management plan closer to the construction start date, following the completion of the Class EA process.

- 6) You indicate that the mitigation section of the report (**Section 7**) contains very generalized statements.

The level of detail provided in the ESR is representative of all Hydro One ESRs. The ESR is consistent with the examples of mitigation described in **Table J-1** of **Appendix J** of the Class EA parent document. Further details are provided in the Class EA companion document 'Environmental Guidelines for Construction and Maintenance of Transmission Facilities'. The ESR elaborates on specific commitments rather than restating standard practice. Examples include commitments regarding vegetative restoration ratios, screening and meeting with stakeholder agencies, other examples are noted in subsequent responses to comments 7, 8 and 9 below.

- 7) One of the examples you raise is the access road via Townline Road.

**Section 4.7.5** describes the selection of Townline Road in response to concerns raised by local residents and ensuing meetings with the Municipality of Clarington and the City of Oshawa to confirm the use of this road. The selection of Townline Road is not considered mitigation but rather the resolution of an issue. Consequently, it is not included in **Section 7**. **Section 4.7.5** also states that a "license agreement" would need to be obtained from the municipalities. This will be modified to read "road user agreement" as per your comment.

- 8) Another example is the screening of views of the station.

**Section 7.3.3** and **Table 7.1** Visual aesthetics under the Socio-economic section indicate that screening will be undertaken on Hydro One property for this purpose.

- 9) You also mention Hydro One's verbal commitment to well monitoring to ensure that the project has no impacts on residential wells.

**Section 7.2** Hydrology addresses monitoring well testing on the site and **Table 7.1** Hydrology under the Socio-economic section also notes the same. **Table 4.6** provides an offer by Hydro One to adjacent landowners for the testing of their well(s) pre-, during and post-construction.

- 10) You indicate that an on-site fire suppression and rescue should be carried out by Hydro One forces given the specialty equipment and electrical hazards.

All Fire and Emergency requirements will be confirmed prior to the start of construction. Hydro One will be consulting and working with the Clarington Fire and Emergency Services Department.

- 11) Regarding Hydro One's Emergency Plan for the proposed Clarington Station, you indicate that the plan should be prepared so that it meets DEMO's and Clarington's approval.

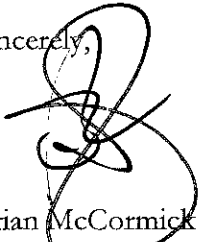
Hydro One prepares an Emergency Response Plan (ERP) for all of its stations. This is a condition of approval for the Environmental Compliance Approval (obtained post EA). The ERP was noted on **Section 1.4.2** on page 7 and **Section 7.1.2** on page 154 of the draft ESR.

With the above, we trust that your general comments have been addressed.

We have been carrying out the Class EA process for numerous projects over many decades and we are confident that we have complied with all EA Act requirements throughout the planning of the proposed Clarington TS project. We are also confident that the potential environmental effects of this project will be mitigated appropriately while continuing to consult with the required regulatory agencies as well as the municipalities. We look forward to working closely with the Municipality of Clarington throughout the course of this project.

Please feel free to contact me or Laura Rynard, Environment Planner at 416-345-5811 or [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Mayor and Members of Council, Clarington  
Franklin Wu, CAO, Clarington  
Patti L. Barrie, Municipal Clerk, Clarington  
Gord Weir, Fire Chief, Clarington  
Tony Cannella, Director of Engineering Services, Clarington  
Andrew Allison, Municipal Solicitor, Clarington  
Chris Darling, Central Lake Ontario Conservation Authority  
John O'Toole, MPP Durham  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

enc.

Hydro One's responses to Municipality of Clarington's Specific Comments on the draft ESR:

Municipality of Clarington comment	Hydro One's response
Maps are grainy and difficult to read	This will be corrected in the final ESR.
Clarington OP (2012) should be Clarington OP 1996 (April 2012 Office Consolidation)	This will be corrected in the final ESR.
OPA alternatives should be discussed more fully in main document. Section.2.4 discusses alternatives but Appendix A information is not referenced.	Consistent with historic practice, EA processes focus on reasonable alternatives. The OPA initially considered a broad range of alternatives and ultimately concluded that there were no technically and economically viable alternatives to the proposed undertaking. Given public concerns, we did explain the rationale for rejecting other unreasonable alternatives. See <b>Section 1.3</b> (p.5) of the draft ESR.
Clarify that the Oshawa Area TS is now referred to as Clarington TS	This has been clarified in <b>Section 1.1</b> (p.2) of the draft ESR.
Section.3.2.1 needs clarification regarding Hydro One property on Greenbelt and ORM, OP designations and zoning, and not designated by the Regional OP	This will be clarified in the final ESR.
Identify number of acres lost to agricultural production	<b>Section 7.3.2</b> specifies that 16.4 ha of agricultural land will be lost through the construction of the station and access road. Approximately another 4 ha will be used for vegetative restoration.
Outline/ highlight site on land use map	This will be done for the final ESR.
Heritage resources are not addressed	Hydro One is working with the MTCS to address its comments regarding cultural heritage resources.
Copies of archaeological studies have not been submitted to the Municipality and are not referenced	The appropriate archaeological assessments have been undertaken and are referenced in <b>Section 3.2.5</b> (pages 61-62) as well as in <b>Section 10</b> . The reports have been submitted to MTCS. There is no requirement in the Class EA to submit archaeology reports to the municipalities. As a matter of standard practice, this is not done because reports may contain sensitive

Municipality of Clarington comment	Hydro One's response
	information.
Was acoustical study prepared by an acoustical engineer?	<p>As indicated in <b>Section 7.1</b> (p.151), “since one or more of the receptors are less than 500 metres away from the proposed site, a detailed acoustic assessment will be performed to predict potential sound levels at the receptors and included in the ECA application”.</p> <p>The acoustic assessment will be undertaken by an Acoustic Engineer.</p>
MNR/ MOE comments gloss over the fact that site is located in ORM.	This issue has been addressed extensively through the Class EA process. There is no reasonable basis for this criticism.
MAH commented that the EA must satisfy s.41 of ORMCP – where are the discussion/ findings that address the requirements?	<p>Hydro One agrees that it must satisfy s.41 of the ORMCP.</p> <p>This will be clarified in the final ESR.</p>
p.80 – Even though Hydro One is a utility we expected elements of the ORMCP to be addressed	<p>As noted, the issue has been discussed extensively through the Class EA process. Hydro One has committed to address s.41 of the ORMCP.</p> <p>This will be clarified in the final ESR.</p>
p.103 – ESR states that if negotiation doesn't pan out for the use of Townline Road, they will proceed off Langmaid – there needs to be commitments to mitigation measure and one of them is bringing the access off of Townline Road, otherwise the commitments should be updated to address the Langmaid Road access and laneway.	Hydro One is committed to the Townline Road access and this is part of the undertaking. Hydro One is confident that Townline Road will be the point of access, subject to necessary approvals.
p.131 – 2 <sup>nd</sup> bullet point – something is missing	The comment is unclear. From Hydro One's perspective, this bullet point is complete.
Generally, issues of cost and land acquisition and time are order of magnitude comments in ESR's not specific reasons.	Although not completely clear, this is not consistent with Hydro One's experience and practice.
p.139 – Alternative 1, 2 and 3 are all on the same	The EA Act does not provide property-related

Municipality of Clarington comment	Hydro One's response
site, not sure this meets the definition of alternatives under the EA Act.	criteria defining what constitutes an alternative. Only one of the three alternatives is within the Hydro One property. The other alternatives require land acquisition.
p.161 – traffic management plan and emergency plan should be carried forward into mitigation measures	This is standard practice and not mitigation developed through the course of this Class EA. This does not weaken the strength of the commitment.
Section.7 is lacking items such as: <ul style="list-style-type: none"><li>• Creek crossings</li><li>• Buffer zones</li><li>• Sediment and erosion controls</li><li>• breeding bird survey</li><li>• rehabilitation plans</li></ul>	As described in <b>Table 7-1</b> , Hydro One has proposed mitigation regarding sediment and erosion, watercourse crossings, restoration, and terrestrial features.  As noted in <b>Section 8</b> , an Environmental Specification will be prepared to guide construction activities for both lines and stations work. The Environmental Specification will contain all of the committed mitigation identified within the ESR.



**Ministry of the Environment**

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Télé.: 41-325-6347



December 14, 2012

File: EA01-05

Yu-San Ong  
Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto ON, M5G 2P5

**RE: Technical Support Section Comments:  
Clarington Transformer Station  
Hydro One Networks Inc.  
Class Environmental Assessment  
Response to Notice of Completion**

Dear Ms. Ong,

The draft Environmental Study Report (ESR) for the proposed Clarington Transformer Station has been reviewed and the following comments are offered for your consideration:

In Section 1.5 on page 13, the last paragraph states that "it should be noted that a project status elevation from a Class EA to an Individual EA is unlikely to require a new assessment." This statement is contestable and should be deleted from the ESR, since such decisions ultimately lie with the Minister of Environment and not the proponent. The statement found at the end of the same paragraph: "An Individual EA process would delay the project", while factual, may be misleading to the public and needs to be deleted from the ESR.

In Section 1.5.2 on Page 14, a Permit to Take Water from the Ministry of Environment should also be included in the list of permits and approvals.

Thank you for the opportunity to comment on this project. Should you have any questions regarding the above comments, please contact me at (416) 326-3469.

Yours sincerely,

Dorothy Moszynski  
Environmental Resource Planner and EA Coordinator  
Air, Pesticides and Environmental Planning

- c. Dave Fumerton, Manager, York Durham District Office, MOE
- Dan Panko, Supervisor APEP Unit, Central Region MOE
- Dan Orr, Manager Technical Support Section, Central Region MOE

Michael Harrison, Manager, Project Review Unit, EAB MOE  
Central Region EA File  
A & P File

**Hydro One Networks Inc.**  
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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

February 19, 2013

Ms. Dorothy Mozynski  
Environmental Resource Planner and EA Coordinator  
Air, Pesticides and Environmental Planning  
Ministry of the Environment  
5775 Yonge Street, 8<sup>th</sup> Floor  
Toronto, Ontario M2M 4J1

**RE: Clarington TS Class EA draft Environmental Study Report (ESR) – MOE review comments**

Dear Ms. Mozynski:

Thank you for your December 14 comments on the draft Environmental Study Report (ESR) for our proposed Clarington Transformer Station.

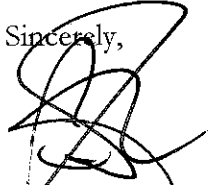
In your letter, you note that the statement in **Section 1.5** on page 13 of the draft ESR “it should be noted that a project status elevation from a Class EA to an Individual EA is unlikely to require a new assessment” should be deleted as such decisions ultimately lie with the Minister of Environment and not the proponent. We agree that the decision on the elevation requests rests with your Minister. Our intent was to indicate that we are confident that the studies and consultation carried out under the Class EA would meet individual EA standards as well. We will delete the statement to avoid any possible confusion.

You also note that the statement on the same page “An Individual EA process would delay the project” needs to be deleted from the ESR as it may be misleading to the public. We will delete the statement. This, in fact, is a very important consideration. An individual EA would delay the project beyond the need date.

You comment that a Permit to Take Water from the MOE should be included in the list of permits and approvals in **Section 1.5.2** on page 14. Although we are not expecting a permit to be required, we will add this permit to the list in the final ESR.

With the above, we trust that your general comments have been addressed. Please feel free to contact me or Laura Rynard, Environment Planner, at 416-345-5811 or [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Dave Fumerton, Manager – York Durham District Office, MOE  
Dan Panko, Supervisor – APEP Unit, Central Region, MOE  
Dan Orr, Manager – Technical Support Section, Central Region, MOE  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

Ministry of Tourism, Culture & Sport

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Programs and Services Branch  
401 Bay Street, Suite 1700  
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Ministère du Tourisme et de la Culture

Unité des services culturels  
Direction des programmes et des services  
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Télééc. : 416 212-1802



December 14, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> floor  
Toronto, ON M5G 2P5

Dear Ms Ong,

**Project: Hydro One - Clarington Transformer Station – Class EA for Minor Transmission Facilities**

**Location: Municipality of Clarington**

**MTC File: 18EA094**

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On November 13<sup>th</sup>, 2012 the Ministry of Tourism, Culture and Sport (MTCS) received Notice of Completion and Draft ESR for 30-day Review Period for the above named EA project. As part of the Environmental Assessment (EA) Act process, the MTCS has an interest in the conservation of cultural heritage resources including:

- archaeological resources
- built heritage resources and
- cultural heritage landscapes.

MTCS has reviewed the report entitled ***Clarington Transformer Station Class Environmental Assessment Draft Environmental Study Report*** (draft ESR) dated November 2012 prepared by Hydro One Networks Inc. MTCS's detailed comments on the draft ESR are provided on the attached chart. We also offer the following comments and recommendations to better address heritage:

#### **Summary of proposed EA Project**

The proponent of this EA is Hydro One, which has a mandate to design, build and operate the provincial transmission network.

The purpose of this undertaking is to construct a new transformer station in the east GTA to ensure adequate power supply is maintained to offset the power lost when the Pickering Nuclear Generating Station (NGS) is removed from service. It is anticipated that the Pickering NGS will be retired from service between 2015-2020.

The proposed undertaking involves construction of a new 500/230 kilovolt (kV) transformer station and the associated line work. The previously approved Enfield TS (230 kV/44 kV) will also be constructed within the same property when it is required by local demand. Also, space has been reserved for two additional 500/230 kV transformers and associated facilities to be installed on the same property at a later date to accommodate for future demand.

An access road will be installed off from Townline Road North on the western edge of the property. The road is the municipal boundary between the Municipality of Clarington and the City of Oshawa.

## Comments and Recommendations

This study follows the Class Environmental Assessment for Minor Transmission Facilities approved under the Environmental Assessment Act (EAA). The definition of environment under the EAA includes the cultural environment. Cultural heritage resources, which include built heritage resources, cultural heritage landscapes and archaeological resources, are a part of the cultural environment. As part of any EA process, proponents should identify the existing environment, assess whether there will be any impacts and if any, propose mitigation measures. This is consistent with the Class EA for Minor Transmission Facilities (Class EA).

Class EA for Minor Transmission Facilities requires that:

- an environment inventory be developed with data collected and mapped according to eight environmental factors, including cultural heritage resources
- individuals or groups be invited to input, including organizations concerned with the protection of heritage resources
- that the ESR include expected effects on the environment and propose alternatives, mitigation and predicted net effects

MTCS and MOE developed guidance materials on the heritage components of the EA process<sup>1</sup>. While developed in the 1980's and 90's, these guidance materials are still valid and should be used by proponents who do not have their own specific guide. As stated in the guidance material, environmental effect or impact of the undertaking on cultural heritage resources, including built heritage resources and cultural heritage landscapes, may be positive or negative, direct or indirect, physical or aesthetic, and may include:

-Indirect impact from the introduction of physical, visual, audible, or atmospheric elements that are not in character with the cultural property and its setting.

Information previously provided to MTCS regarding the heritage component of this EA project indicated the existence of designated, listed and potential cultural heritage resources within the broader study area. On November 2, 2012 MTCS advised that, based on the information provided, further study was indicated. The current draft ESR has removed this information regarding identified cultural heritage resources.

## Summary

In summary, MTCS continues to have outstanding questions regarding the consideration of cultural heritage resources as part of this EA. MTCS requests that the proponent demonstrate that the Class EA process as it relates to cultural heritage resources has been followed. This would include:

- identifying and mapping the existing environment including all known or potential cultural heritage resources
- determining whether or not the identified properties have cultural heritage value or interest as determined under Ontario Regulation 9/06 of the Ontario Heritage Act
- evaluating potential environmental effects the could include the introduction of physical, visual, audible, or atmospheric elements, and
- proposing appropriate mitigation measures, if necessary.

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<sup>1</sup> Guidelines on the Man-Made Heritage Component of Environmental Assessment. Ministry of Culture and Recreation. 1980.

Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments. Ministry of Culture and Communications and Ministry of the Environment. 1992.

Please find attached to this letter the Legislative Framework for Cultural Heritage Protection in Ontario.

Thank you for the opportunity to review this EA project. We look forward to continuing to work with Hydro One.

Should you have any questions please feel free to contact me.

Best Regards

**Rosi Zirger**  
Heritage Planner  
416-314-7159  
[rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca)

Copy to:

Dorothy Moszynski,  
Environmental Resource Planner/EA Coordinator, Ministry of the Environment

Brian McCormick  
Manager, Environmental Services and Approvals

Paula Kulpa  
Team Lead – Heritage Planners, Ministry of Tourism, Cultural and Sport

Karla Barboza  
Heritage Advisor, Ministry of Tourism, Cultural and Sport

Chris Schiller  
Manager, Culture Services, Ministry of Tourism, Cultural and Sport

## Attached - Legislative Framework for Cultural Heritage Protection

a) The Minister of Tourism, Culture and Sport is responsible for the administration of the *Ontario Heritage Act* and is responsible for determining policies, priorities and programs for the conservation, protection and preservation of Ontario's heritage, which includes archaeological resources, built heritage and cultural heritage landscapes.

b) In Ontario, environmental assessments are undertaken under the *Ontario Environmental Assessment Act*. The purpose of the Act is to provide for the protection, conservation and wise management of Ontario's environment. The Act defines environment in a broad sense that includes natural, social, cultural, economic and built environments. This broad definition of the environment makes the assessment of the impact of the undertaking on cultural heritage resources part of the standard environmental assessment process in Ontario. Environmental assessments made under the EA Act therefore assess and address the impact of the undertaking on cultural heritage resources.

c) The *Planning Act* sets out the legislative framework for land use planning in Ontario and lists matters of provincial interests, which include the conservation of cultural heritage resources. Section 3 of the Planning Act requires that decisions that affect planning matters "shall be consistent with" the Provincial Policy Statement (PPS) under the Act.

d) Cemeteries are important and sacred places. While the operation and management of cemeteries in Ontario falls under the *Funeral, Burial and Cremation Services Act, 2002* (previously the *Cemeteries Act*), administered by the Minister of Government Services, over a hundred cemeteries have also been designated under the *Ontario Heritage Act*. The *Funeral, Burial and Cremation Services Act* contains specific procedures for the closure (i.e. removal) of cemeteries if the Registrar of cemeteries determines that the closure is "in the public interest".

e) *Standards and Guidelines of the Conservation of Provincial Heritage Properties* were issued under the authority of section 25.2 of the Ontario Heritage Act. The Standards and Guidelines apply to properties the Government of Ontario, through its ministries and prescribed public bodies, owns or controls that have cultural heritage value or interest—provincial heritage properties.

Responsible stewardship requires careful consideration of all alterations proposed to cultural heritage resources and their impact on the associated environments.



**Hydro One Networks Inc.**  
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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 4, 2013

Ms. Rosi Zirger  
Heritage Planner  
Ministry of Tourism, Culture and Sport  
401 Bay Street, Suite 1700  
Toronto, Ontario M7A 0A7

**RE: Clarington TS Class EA draft Environmental Study Report (ESR) – MTCS review comments**

Dear Ms. Zirger:

Thank you for your December 14 comments on the draft Environmental Study Report (ESR) for our proposed Clarington Transformer Station.

In your letter, you provide general comments as well as specific comments. The attached table responds directly to your specific comments. Please find below responses to your general comments:

- 1) In your letter you note that the current draft ESR has removed information that was previously provided to MTCS regarding identified cultural heritage resources

The intent of the information previously provided was to bring forward information of potential interest to MTCS and facilitate consultation with MTCS. This was done following numerous attempts to obtain feedback from the MTCS.

The information presented in the draft ESR is what Hydro One believes to be relevant to the Class EA process for the proposed project.

- 2) You note that “MTCS continues to have outstanding questions regarding the consideration of cultural heritage resources as part of this EA. MTCS requests that the proponent demonstrate that the Class EA process as it relates to cultural heritage resources has been followed.”

Hydro One believes that the Class EA process has taken into consideration the relevant cultural heritage resources for the proposed project. The key issue is the MTCS request to conduct heritage assessments on private property which will not be directly affected by construction activities.

Hydro One will continue to work closely with MTCS' on cultural heritage resources after the EA process has been completed. This includes the mitigation plan proposed for the cultural heritage landscapes.

With the above, we trust that your general comments have been addressed.

We have been carrying out the Class EA process for numerous projects over many decades and we are confident that we have complied with all EA Act requirements throughout the planning of the proposed Clarington TS project. We are also confident that the potential environmental effects of this project will be mitigated appropriately while continuing to consult with the required regulatory agencies as well as the municipalities. We look forward to working closely with the Ministry of Tourism, Culture and Sport throughout the course of this project.

Please feel free to contact me or Laura Rynard, Environment Planner at 416-345-5811 or [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Dorothy Mozynski, EA Coordinator – Central Region, MOE  
Paula Kulpa, Team Lead – Heritage Planners, MTCS  
Karla Barboza, Heritage Advisor, MTCS  
Chris Schiller, Manager – Culture Services, MTCS  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

enc.

Hydro One’s responses to Ministry of Tourism, Culture and Sport’ specific comments on the draft ESR:

Ministry of Tourism, Culture and Sport’s comment	Hydro One’s response
<p><b>Section 1.5.2</b> Other permits, licenses and approvals (p.13-14)</p> <p>Replace with “archaeological assessment compliance letters from the MTCS”</p>	<p>The correct terminology will be used in final ESR.</p>
<p><b>Section 3.2.5</b> Cultural heritage resources (p. 56-57)</p> <p>Revise to more accurately reflect the legislative framework for cultural heritage protection. Replace with “the MTCS is responsible for the administration of the OHA and is responsible for determining policies, priorities and programs for the conservation, protection and preservation of Ontario’s heritage, which includes arch resources, built heritage and cultural heritage landscapes...”</p>	<p>The change will be added to the final ESR.</p>
<p><b>Section 3.2.5</b> definition of cultural heritage resources (p. 56-57)</p> <p>These terms are defined in the Glossary in <b>Section 11</b> of the ESR, definitions should refer to or be consistent with those in the glossary.</p>	<p>The definition of cultural heritage resources will be deleted from <b>Section 3.2.5</b> in the final ESR.</p>
<p><b>Section 3.2.5</b> Built heritage resources and cultural heritage landscapes (p.57-59)</p> <ul style="list-style-type: none"> <li>• The section does not provide data regarding the existing built heritage resources and cultural heritage landscapes conditions within the study area. Please revise.</li> <li>• Clarify the “studies” referred to that inform the information in the first paragraph.</li> <li>• Clarify why the first section addresses “adjacent properties” but the second section addresses only the “Clarington property”</li> <li>• This information is not consistent with the</li> </ul>	<ul style="list-style-type: none"> <li>• As indicated, for the proposed project, adjacent properties are privately owned and not within the care or control of Hydro One, therefore it would be inappropriate and disrespectful to private owners to include information on privately owned properties in a public document such as the draft or final ESR.</li> <li>• The studies refers to the MTCS checklist for built heritage resources and cultural heritage landscapes</li> <li>• The first two paragraphs address the outcome of Hydro One’s initial consultation with the MTCS regarding adjacent</li> </ul>

Ministry of Tourism, Culture and Sport's comment	Hydro One's response
<p>information previously provided to MTCS on October 17, 2012.</p>	<p>properties, and the rationale for not including private information on adjacent properties in the draft ESR (p.57). The following paragraphs address the Clarington property from a built heritage resources and cultural heritage landscapes perspective (p. 57-58). Then the "Adjacent Properties" section addresses the properties that abut the Clarington property, without providing any private information on the properties.</p> <ul style="list-style-type: none"> <li>As indicated earlier, the intent of the information previously provided on October 17, 2012 was to initiate discussions with MTCS. The information presented in the draft ESR is what Hydro One believes to be relevant to the Class EA process.</li> </ul>
<p><b>Figure 3-12</b> (p.59)  Add or re-instate information for identified cultural heritage resources.</p>	<p>The figure presents the current property fabric of the Clarington property and surrounding areas, and is consistent with Hydro One's intention of not including private information on adjacent properties.</p>
<p><b>Section 3.2.5</b> Adjacent properties (p.60-61)  Please explain how this section addresses the existing cultural conditions of the study area. The area being referred to as "adjacent" in fact lies within the limits of the "study area" as defined in <b>Section 2.1</b> of ESR. Please clarify.</p>	<p>This section describes the adjacent properties abutting the Clarington property and concluded that, from a cultural heritage landscapes perspective, "the new TS will be visible to properties to the east, west and south. The existing transmission corridors are visible components of the area landscapes." (p.61)</p> <p>As indicated on p.61 of the draft ESR, "Hydro One believes strongly that information about private properties and home owners does not belong in public documents. Out of respect for privacy and personal interests, it would be inappropriate to make judgments about the heritage value of non-designated private properties. It is also our conclusion that such studies would not meaningfully influence mitigation decisions."</p>
<p><b>Section 4.4.6</b> Ministry of Tourism, Culture and</p>	<ul style="list-style-type: none"> <li>Wording will be clarified in the final ESR.</li> </ul>

Ministry of Tourism, Culture and Sport's comment	Hydro One's response
<p>Sport (p.75-76)</p> <ul style="list-style-type: none"> <li>• To clarify on November 2, 2012 MTCS recommended: "Based on the completed checklist and information provided, a Heritage Impact Assessment (HIA) is recommended for this project..."</li> <li>• With regard to the PIC's, the PIC display boards listed: Built Heritage Resources, Archaeological Resources, Cultural Heritage Resources (including visual resources). However, no details of such are provided in ESR.</li> </ul>	<ul style="list-style-type: none"> <li>• Please see <b>Section 3.2.5</b> of the draft ESR for details on cultural heritage resources.</li> </ul>
<p><b>Section 6.2</b> Construction phase</p> <p>Add to where archaeology was mentioned: "In the event that human remains are encountered during project work, you must immediately notify the police, the coroner's office and the Registrar of Cemeteries. The Cemeteries Regulation Unit of the Ministry of Consumer Services may be contacted at toll free 1-800-889-9768"</p>	<p>This is standard practice and will be added to the final ESR and project environmental specifications.</p>
<p><b>Table 7-1</b> (p.174-175)</p> <p>The statement re: built heritage and cultural heritage landscapes is inconsistent with information previously provided to us which indicates the presence of built heritage resources and cultural heritage landscapes.</p>	<p>The project will not affect any built heritage resources as the project site does not contain any built heritage. However, due to the location of the Clarington Transformer Station, certain existing cultural heritage landscape features will be affected are as follows:</p> <p>The widening of the unopened Townline Road from Concession 7 to the Project Site (outside of Hydro One's property) as the permanent access to the Station. This section of the Townline Road is currently used as a maintenance access for the existing transmission lines. The effect of this widening will be minimal to the current condition. The section of the Road north of the permanent access will not be affected. We will reduce the effects of the widening of Townline Road by restricting the limits of construction.</p>

<b>Ministry of Tourism, Culture and Sport's comment</b>	<b>Hydro One's response</b>
	<p>Existing hedgerows within Hydro One's property located where construction will take place will be removed. The remaining hedgerows along the property line of Hydro One's property will be augmented to increase the screening effects and structure of the hedgerows. Additional hedgerows will be planted using existing species of trees and shrubs along the Hydro One's property line where possible to provide additional screening of the station and to reflect the heritage values of the hedgerows.</p> <p>Approximately 328 m of the Abandon Road allowance will be removed due to the location of the Station. However, approximately 353 m of the Abandon Road allowance within Hydro One's property will remain. Please note that beyond Hydro One's property, the Abandon Road allowance is either partially removed or does not exist due to the agricultural practice within the Study Area. The section of the Abandon Road allowance within Hydro One's property that will remain will be maintained during construction and future operation of the station.</p>



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*Member of Conservation Ontario*

December 17, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, ON  
M5G 2P5

Dear Yu-San:

**Subject: Clarington Transformer Station Class Environmental Assessment  
Draft Environmental Study Report (Report No. 590-CLEA-12-11, dated  
November 2012)  
Proposed Transformer Station, Part Lot Municipality of Clarington  
CLOCA IMS #PSSE8**

The Central Lake Ontario Conservation Authority (CLOCA) has reviewed the above noted Draft Environmental Study Report (ESR) as prepared by Hydro One. The proposed undertaking involves a new 500/230 kilovolt (kV) transformer station and associated transmission line work.

The Clarington Transformer Station (TS) is proposed to be located on Hydro One property, within the Regional Municipality of Durham, in the Municipality of Clarington. The project area is defined by the Hydro One property located within Part Lots 33-35, Concession 7. The site borders the east side of the City of Oshawa boundary and is located northeast of Concession Road 7, between the unopened Townline Road North and Langmaid Road.

The majority of the Hydro One property is situated within the Planning Boundaries of the Oak Ridges Moraine Conservation Plan (ORMCP, MMAH, 2002) and is comprised of Countryside and Natural linkage areas. The portions of the property outside of the ORMCP, are situated within the Protected Countryside area of the Greenbelt Plan (MMAH, 2005) and include areas within the Natural Heritage System of the Greenbelt Plan. The Provincial Policy Statement considers key natural heritage features (KNHF, MMAH, section 2.1) which are generally encompassed within the

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*What we do on the land is mirrored in the water*



ORMCP and Greenbelt Plans. The Regional Official Plan recognizes the ORMCP and Greenbelt Plan Land use designations and designates portions of the subject property as Prime Agricultural land. The Clarington Official Plan conforms to the ORMCP and Greenbelt Plans and recognizes the key natural heritage features outlined in these plans. The Clarington Official Plan also identifies significant woodland on a portion of the property (wooded area north of the proposed station) as well as significant valley lands for the areas directly surrounding the tributaries of Harmony and Farewell Creeks. The current land-use designation is “Utility” and the area is zoned agricultural in the Clarington OP (1996, {April 2012 Consolidation}).

Generally, all of the above noted plans permit utility and infrastructure uses/projects near or within designated features when the need has been demonstrated and it has been determined that there is no reasonable alternatives. Design and construction practices must minimize the negative impacts and disturbance on key natural heritage features or their related functions and improve connectivity. Section 41 of the ORMCP applies to this project for utilities use on lands within the Natural Linkage areas described above which include key natural heritage features or hydrologically sensitive features. The policies set out in the applicable land use plans, require not only the need for a project but a determination that there is no reasonable alternative. The land use plans also require that disturbance to the affected area be kept to a minimum to ensure that key natural heritage and hydrologically sensitive features are protected. In addition, design and construction practices must ensure that any adverse impacts are minimized so that the integrity of the land use plans are maintained.

The Class EA process for the proposed Clarington TS project includes rationale for a technically preferred location. Hydro One has determined that there is only one reasonable alternative location for the Clarington TS from a technical and economic perspective and is proceeding to implement the Clarington TS in accordance with the recommendations of the Ontario Power Authority (OPA). The ESR describes in detail the rationale and technical issues regarding the limitations of locating a transformer site. The proposed site was selected in 1978 and expropriated for the purpose of a transformer station. It should be noted that CLOCA’s review is not focused on the rationale for selecting the subject site, but will focus on the key natural heritage features related to the technically preferred site and other matters under the jurisdiction and mandate of the Conservation Authority.

**General Comments:**

The Class EA Process for the proposed Clarington TS project includes an assessment of the existing natural and social environment and their sensitivity to the proposed project. A prediction of potential effects, identification of mitigation measures as well as public and agency consultation was also undertaken. The ESR provides a breakdown of the key Natural Heritage





Features as they relate to the PPS, ORMCP, Greenbelt plan and Regional/local municipal official plans. CLOCA recognizes that Hydro One Projects are exempt from Municipal Approvals (as authorized under section 62 of the Planning Act) if approval is obtained under the Environmental Assessment Act.

CLOCA was provided with the following background information prior to the release of the Draft ESR in November:

- Natural Heritage Existing Conditions Report (dated August 22, 2012, prepared by Stantec Consulting)
- Draft Geotechnical Report (dated June 19, 2012 as prepared by EXP)
- Borehole Logs completed by Inspec-Sol, November 2012
- Memorandum to the Ministry of Natural Resources regarding Species at Risk (Endangered Species Act - Butternut trees and Proposed Mitigation), dated October 18, 2012.
- Twelve (12) separate deliverable items (i.e. memos, grading plans, plant lists, conceptual layout etc.)

None of the above noted information is provided in the appendices of the draft ESR and there is little reference in the Draft ESR made to the above noted reports/information provided to CLOCA. In addition, groundwater monitoring wells and geotechnical assessments were still being undertaken on the subject site for the proposed reconfiguration of the transmission lines immediately before and after the release of the draft ESR. The ESR (Section 3.1.3, pg. 43) makes reference to the installation of three monitoring wells; however there is no comprehensive background report on Hydrogeology for the proposed transformer site or for the proposed transmission line re-configuration as outlined in Section 5.0.

The proposed station is approx. 280 m X 600 m and is located within the headwaters of the Harmony Creek watershed and immediately east of the Farewell Creek Watershed. CLOCA would like to ensure that a minimum 30 metre setback from the Harmony Creek tributaries is maintained as much as possible. Protection of the Greenbelt Natural Linkage Areas and ORMCP Natural Linkage Areas must be considered in the context of ensuring connectivity of the valley lands and natural wooded areas that surround the proposed transformer station. The northwest corner of the proposed station is shown to encroach within approximately 22 metres of the toe of the slope for the grade change to the station elevation. CLOCA will require buffer strip plantings (native species) within any areas where the station encroaches the existing valley lands associated with the tributaries of Harmony Creek. In addition, CLOCA will commit to working with Hydro One on all restoration plantings proposed for the station site and transmission line work where vegetation removal may be required.



The main access road is proposed from Townline at the southwest corner of the project site. Langmaid road is discussed as a possible alternative; however CLOCA does not support access to the site via Langmaid road. Access from Langmaid road would require considerably more disturbance as this route to the proposed station is much longer and requires a watercourse crossing. Access from Townline road would be much shorter and does not require a watercourse crossing.

**Section 5.3 Alternative Methods, Connection of Existing 230 kV Transmission Lines to Station:**

In addition to the proposed transformer station, the ESR outlines the alternatives proposed for the configuration of existing 230 kV transmission lines around the perimeter of the proposed station. While we would like to see the entire woodland and valley land areas protected, we understand the limitations and complexity of relocating the existing transmission lines and therefore can support the proposed preferred Alternative 1 provided that restoration plantings are completed in a 2:1 ratio for the remedial planting area and all provisions for butternut restoration are completed in accordance with Species at Risk requirements set forth by the Ministry of Natural Resources.

**Section 7.2 Natural Environment, Section 7.2.1, Key Natural Heritage Features:**

**Significant Woodlands:**

A significant woodland (approx.. 4.7 ha) is located within close proximity of the proposed transformer station. This area is designated as significant (Clarington OP) & a key natural heritage feature in the ORMCP & Greenbelt Plan. Hydro One is proposing to remove vegetation (i.e. approx.1.5 ha area) to facilitate reconfiguration of the 230 kV transmission line work. CLOCA will require detailed plans on all aspects of work in this area including restoration plans at the suggested 2:1 planting ratio to ensure that the vegetation replacement area meets or exceeds a 3.0 ha area. CLOCA will also commit to working with Hydro One and the Ministry of Natural Resources to assist with providing information and input on any Species at Risk issues that may arise as a result of the proposed restoration efforts.

**Significant Valleylands:**

The proposed project does not affect Farewell Creek and its tributaries, however the transformer station and proposed transmission line work will impact areas adjacent to the Harmony Creek valleylands along the west and north sides of the proposed station. CLOCA will review construction and grading plans at the detailed stage and will require strict adherence to erosion and sediment control plans required for all areas adjacent to the Harmony Creek valleylands.



**Significant Wildlife Habitat:**

The ESR states that “no animal movement corridors are known to exist”, however according to CLOCA’s Black/Harmony/Farewell Existing conditions report, the site contains both landscape and local corridors. Landscape corridors are defined as “major movement routes within the watershed that connect core areas and/or are robust enough to be sustainable as habitat units themselves”. They typically follow linear features such as creeks and valleys, and can be composed of a series of independent habitats that allow wildlife to “hopscootch” across the landscape.” Local corridors are defined as minor movement routes within the watershed that help to connect habitat patches into a continuous series. They are often associated with creek valleys and typically function at a sub-watershed scale. They function with landscape corridors to connect the smaller habitats to the larger ones.” As part of the development of the Natural Heritage System, a landscape level analysis was conducted and found that both landscape and local corridors are present on the project site within the Grandview sub-watershed and the Farewell watershed. CLOCA staff welcome further discussion on this and request more detailed information as to why animal corridors were determined not present on site. Potential restoration opportunities should be explored further to enhance these animal movement corridors.

**Wetlands:**

The ESR and Natural Heritage Existing Conditions Report (Stantec, 2012) indicate that there are no Provincially Significant Wetlands on the subject site. CLOCA concurs with these findings, however there are small wetland pockets located immediately east of the woodland area (i.e. northeast side of the proposed transformer station and adjacent to the forested area in the northwest portion of the subject property. These pocket wetlands do provide some ecological functions and should be maintained in their current state as much as possible. Current agricultural practices in the fields adjacent to these wetland features (with the exception of the forested areas) continually disturb the soil and vegetation and therefore prevent the establishment of a natural buffer. CLOCA would like to see the establishment of a larger natural buffer between the pocket wetland areas and adjacent agricultural fields. CLOCA will provide additional input at the detailed design stage regarding improvements and enhancement of natural buffer areas.

**Species at Risk:**

Species at Risk (SAR) matters are the responsibility of the Ministry of Natural Resources (Endangered Species Act), however CLOCA will assist the Ministry and Hydro One in the review and implementation of restoration efforts related to SAR if required.



**Hydrology:**

CLOCA would like to ensure that any watercourse crossings within the Harmony Creek valleylands/tributaries are kept to a minimum. This would apply to any temporary as well as permanent crossings. CLOCA will review all watercourse crossing plans at the detailed design stage and issue the requisite approvals accordingly (i.e. Fisheries Act review/ Hydro One's MOU with Conservation Authorities as outlined below).

**CLOCA Approvals:**

CLOCA currently has a "Level 3 Agreement" with the Department of Fisheries and Oceans to review and assess projects on behalf of DFO under the Fisheries Act. The tributaries of Farewell and Harmony Creeks that cross the subject site contribute to fish habitat downstream and provide indirect seasonal habitat during higher flows. The reaches of Harmony Creek adjacent to the proposed station are considered fish habitat. In addition, Farewell Creek, further to the east of the proposed station is also considered fish habitat as per the Fisheries Act. All works in or adjacent to the above noted tributaries will be reviewed and assessed accordingly within the context of the Fisheries Act. Mitigation and/or compensation measures will be required for any watercourse crossings and any additional works that may affect fish habitat. CLOCA will issue the applicable Letters of Advice to ensure that all aspects of the fisheries act are addressed appropriately for this project.

Conservation Ontario signed a Memorandum of Understanding (MOU) with Hydro One in March of 2011. CLOCA will require that Hydro One follow the requirements outlined in the above noted MOU, particularly Appendix B – Best Management Practices. Hydro One Networks Inc. is considered a Crown Corporation and is therefore exempt from the permit requirements pursuant to Ontario Regulation 42/06 - Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses.

**Stormwater Management:**

CLOCA will review all aspects of stormwater management for the proposed project. Please refer to CLOCA's Stormwater Management Guidelines for further reference. See CLOCA's web-site for further reference: (link noted below):

<http://www.cloca.com/resources/Technical%20Guidelines%20for%20Stormwater%20Management%20Submissions%20-%20March%202010.pdf>



**Specific Comments:**

**Executive Summary; Project Consultation, pg. ES – 3:**

In addition to the two PICs held, a Community Information Meeting was also held on September 11<sup>th</sup>, 2012.

**Section 3.1.3 Hydrology and Hydrogeology, pg. 31**

The ESR states that there are “four points of defined surface water discharge from the site boundaries including two intermittent watercourses.” According to CLOCA’s drainage layer, as depicted within the Black/Harmony/Farewell Existing Conditions Report, there are additional drainage features not addressed in the ESR which are also part of CLOCA’s Natural Heritage System. CLOCA, in attendance with staff from Hydro One, visited the site on Thursday November 22<sup>nd</sup> to confirm these drainage features. The creek emanating from the wetland to the north was present but not entirely channelized. CLOCA’s BHF Existing Conditions also showed another creek travelling along the hedgerow to the north; however this creek system was not present. The ESR should reflect the existence of the creek emanating from the wetland in the north.

Prior to a review of the Draft E.A. study findings, CLOCA reviewed the conditions at the site utilizing internally available geological and hydrogeological mapping products and reports. CLOCA also reviewed existing well records and site specific borehole records provided in the Geotechnical Report completed in June 2012 by EXP. CLOCA staff also participated in a site walk in November to confirm desktop analyses and findings.

Staff suggests that the report should include a map to show the overlay of the ORM planning boundary and the physiographic region/surficial geology for clarity.

CLOCA staff concurs with the geological and hydrogeological description of site conditions presented in the report. Surficial geology mapping indicates that the site is covered by sandy salty till materials (Haltom till). The site is located on the south slope physiographic region and is within the ORM Planning boundary. The surficial tills are in the order of 10 to 30 m thick at the site as confirmed by water well records, geotechnical boreholes and completed cross sections. No significant groundwater recharge areas (SGRAs) have been delineated on the site. Vulnerability mapping shows a small area near Lang maid Road associated with expected alluvial deposits along the seasonal stream. These deposits are not evident on surficial maps or in the borehole information.

Based on the data available, CLOCA staff agrees with the groundwater findings outlined in the ESR.



**Second Paragraph, pg. 35:**

CLOCA staff walked the site on November 22<sup>nd</sup>, 2012 and observed no groundwater seepage. Standing water was observed but believed to be surface water or discharge from tile drainage common in the area.

**Second Paragraph, pg.36:**

Paragraph 2 suggests an interpretation of 3 layers; two tills separated by a dense sandy silt while paragraph three indicates “sandy silt till extending from surface to the base of the boreholes at 10 to 15 BGS. This is confusing. Staff suggests that it be clarified that these isolated seams of salty sand are more the exception than the rule.

**Last Paragraph, pg. 36**

It should be made clear that there are no delineated vulnerable areas on the footprint of the transformer station versus the site. The mapping shows a small area of vulnerable materials but this material is associated with previously mapped (expected) alluvial deposits rather than field verified data.

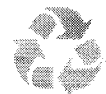
**Pg. 41:**

The report discusses water well records in the vicinity of the proposed station and speaks to “average” screened depths, however Table (3-4) does not show the screened depth information. Please provide this information in order that the reader can identify the “three remaining wells” discussed. In addition, this paragraph should be re-written to clarify the thickness of the aquitard (surficial materials) when compared to the depth of the wells. Staff suggest that this section discuss the wells in metres BGS versus elevation AMSL for the sake of clarity and public review, particularly in relation to the 3 remaining shallow wells.

**Section 8.0 Monitoring Program, pg. 179:**

It is suggested that Hydro One conducts pre-construction water level and water quality sampling for on-site monitoring wells as well as sampling for area residents and provide this data as baseline conditions.

Monitoring of all wells is also recommended during and after construction of the transformer station and transmission line re-configuration work. The post-construction monitoring program should be carried for a minimum two year period after completion of all site activities. This work should include water level and water quality monitoring for down-gradient site and boundary monitoring wells. Monitoring should align with shallow water table flow path data ensuring that down-gradient boundaries are adequately covered.



**Fish and Aquatic Wildlife Habitat:**

CLOCA staff first visited the subject property in the summer of 2002 investigating potential fisheries assessment sites as part of the Aquatic Monitoring Program. No suitable sites were selected due to the fact that the creek was dry. The closest site (H305; June 7<sup>th</sup>, 2002) that was sampled within this sub-watershed was located immediately upstream (north) of Conlin Road and no fish were caught and later in the summer the site was dry.

In 2005 CLOCA staff undertook fisheries assessments upstream of Taunton Road within the subject sub-watershed. Through sampling (site H306) it was discovered that the creek was completely dry upstream of the stormwater management facility in the area. The stormwater management facility located adjacent to the site was the only source of baseflow for this section of Harmony Creek at the time of sampling. CLOCA staff were also involved with the review and construction of the new Conlin Road bridge (located downstream of the subject site) during 2011. A site visit on July 19<sup>th</sup> confirmed that the creek was not flowing at this location although there was a pool of water on the upstream (north) side of the bridge. No fish were caught during the required fish rescue portion of the bridge project.

**Specific Fisheries Comments:**

**Figure 3-5: Watercourses and Catchment Areas, pg. 34:**

Figure 3-5 is missing a small tributary located between reaches 1-4 and 1-5 on the south branch. Please refer to CLOCA's drainage layer as previously provided. Ground truthing of the watercourses was conducted by CLOCA staff during a site walk on November 22<sup>nd</sup> and confirmed the presence of defined bed and bank areas for these areas.

**6.2 Construction Phase, Transmission Lines, page 146:**

The MNR timing window for in-water works in this area of Harmony Creek is coldwater (July 1st to September 15th); however, currently, there is a substantial barrier downstream of this location (upstream of Harmony Road; please refer to the 2008 Aquatic Monitoring Report.) that prevents most fishes including migratory Rainbow Trout from accessing this reach. Any works conducted outside of this window must mitigate any impacts. Management recommendations for this fishery can be found in the Central Lake Ontario Fisheries Management Plan (CLOCA/MNR 2007).

**Section 7.2 Natural Environment:**

Cross Reference - Figure 3-5: Watercourses and Catchment Areas outlined on pg. 34:



- Catchment A, Reach 1-3 (North Branch), 672686 m E, 4873493 m N:  
Restoration opportunities should be explored within this headwater tributary, i.e., riparian plantings. Currently, this section is being mowed.
- Catchment D, 673051 m E, 4872263 m N:
- Restoration opportunities should be explored within this headwater tributary, i.e., riparian plantings.

There also appears to be potential restoration opportunities located on private lands located north of Concession 7 along Langmaid Road. North of the Clarington TS property along the Farewell Creek there appears to be approximately four off-line ponds where thermal mitigation may be possible. Also, along this section it is apparent that riparian cover could be improved along the creek. Within the Farewell Creek watershed approximately 30 km of stream is in need of riparian planting in order to meet EC 75% guidelines (CLOCA/MNR 2007).

Generally, CLOCA staff agrees with the findings and conclusions outlined in the fish and aquatic habitat sections of the ESR as they are consistent with results from CLOCA's long-term Aquatic Monitoring Program. CLOCA staff have identified a number of areas (noted above) that should be explored further with regard to restoration opportunities within and adjacent to the Clarington TS property.

#### **Natural Heritage:**

#### **Section 5.3.2 Description of Alternatives pg. 134; Table 5-1: Environmental Factors for Alternative Evaluation and Comparison pg. 138; 6.2 Transmission Lines, pg. 146 & 7.2.1 Species at Risk Habitat pg. 157:**

In subsection 'Alternative 1 – West side of station through southern portion of woodland' and in section '6.2 Transmission Lines' it states that 4 retainable butternuts will be removed, and in table 5-1 it states that 5 retainable butternuts will be removed, while section 7.2.1 states that fewer than 10 retainable butternuts will be removed. There is a lack of consistency that needs to be addressed as to the number of retainable butternuts being removed.

#### **Section 6 - Project Description, pg. 141:**

The Ontario Invasive Plant Council, in partnership with the MNR and Peterborough Stewardship Council has developed a Draft "Clean Equipment Protocol for Industry". CLOCA staff encourages Hydro One and all out-sourced construction staff to follow this protocol during the construction phase and maintenance phases of the project. Following these protocols will help reduce the impacts on the surrounding natural features by limiting the introduction of non-native invasive material to the site.





**Section 7 – Potential Environmental Effects and Mitigation:**

**Section 7.2.1 - Key Natural Heritage Features, Significant Woodlands (Pg. 156, 4<sup>th</sup> paragraph):**

The timing window for breeding birds should state May 1<sup>st</sup> to July 31<sup>st</sup>. (Ref. personal comm. MNR). Please contact Environment Canada (John Fischer, Environmental Assessment Coordinator, Environment Canada) if you require any clarification regarding the Migratory Birds Convention Act and associated timing windows.

While the fisheries and breeding bird timing windows are identified in Section 7 of the ESR, the project schedule (Section 6.5, pg. 148) should reflect that all work will be done in accordance with these timing windows.

**Section 7.2 Natural Environment pg. 156; Significant Wildlife Habitat pg. 157; & Table 7-1: Summary of Potential Effects, Mitigation Measures and Residual Effects pg. 175-6:**

CLOCA and Hydro One staff met at CLOCA head offices on October 26<sup>th</sup> and on-site November 22<sup>nd</sup> to discuss, in part, CLOCA's Natural Heritage System (NHS) and potential restoration opportunities. Comments were sent to Hydro One staff on November 13<sup>th</sup>, 2012, stating that a minimum of 1:1 compensation for impacting CLOCA's NHS will have to be met. The Draft Black/Harmony/Farewell Watershed Plan is available on the CLOCA website. The ESR should reflect these comments and Hydro One's commitment to the restoration of the NHS impacted by this project.

**Section 7.3.2 Agricultural Resources:**

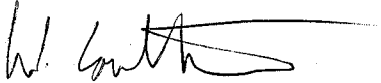
This section states that the cultivated land affected is approximately 16.4 ha; however this number does not reflect the land that will be restored as a result of the impacted Natural Heritage System (NHS). This section should be changed to address the restoration commitments of Hydro One regarding the impacted NHS.

Monitoring of lease agreements should also be explored to ensure the maintenance and preservation of any restoration work done as part of Hydro One's restoration compensation commitments.



We trust that these comments will be addressed as this project moves forward. Thank you for providing the opportunity to comment on this project. We look forward to working with Hydro One in the future. Please feel free to contact the undersigned if you have any questions or require any additional information pertaining to these comments.

Yours truly,



Warren Coulter  
Environmental Engineering Analyst

WC/ms

cc: Doug Magee, Senior Environmental Planner, Environmental Services & Approvals,  
Hydro One Networks Inc.  
Chris Strand, Fish Habitat Biologist, DFO, Peterborough  
Bohdan Kowalyk, MNR Aurora District Office  
Warren May, Biologist, MNR, Aurora District Office  
David Crome, Director, Planning Services, Municipality of Clarington  
Perry Sisson, Director, Engineering & Field Operations, CLOCA  
Chris Darling, Director, Development Review and Regulation, CLOCA  
Ian Kelsey, Aquatic Biologist, CLOCA  
Diana Shermet, Natural Heritage Resource Analyst, CLOCA  
Kathy Luttrell, Terrestrial Resource Analyst, CLOCA



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**Brian McCormick**  
**Environmental Planner, Environmental Services & Approvals**

February 26, 2013

Mr. Warren Coulter  
Environmental Engineering Analyst  
Central Lake Ontario Conservation  
100 Whiting Avenue  
Oshawa, Ontario L1H 3T3

**RE: Clarington TS Class EA draft Environmental Study Report (ESR) – CLOCA review comments**

Dear Mr. Coulter:

Thank you for your December 17 comments on the draft Environmental Study Report (ESR) for our proposed Clarington Transformer Station.

In your letter, you note that the CLOCA review is not focused on the rationale for selecting the subject site, but is focused on key natural heritage features related to the technically preferred site and other matters under the jurisdictions and mandate of the conservation authority.

You provide general comments as well as specific comments. The attached table responds directly to both your general and specific comments.

With the above, we trust that all of your comments have been addressed. And we look forward to working closely with the Central Lake Ontario Conservation Authority throughout the course of this project.

Please feel free to contact me or Laura Rynard, Environment Planner at 416-345-5811 or [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian McCormick". The signature is stylized and somewhat abstract, with overlapping loops and a long, sweeping tail that extends downwards and to the left.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Doug Magee, Senior Environmental Planner, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE  
Chris Strand, Fish Habitat Biologist, DFO, Peterborough  
Bohdan Kowalyk, MNR, Aurora District Office  
David Crome, Director, Planning Services, Municipality of Clarington  
Perry Sisson, Director, Engineering & Field Operations, CLOCA  
Chris Darling, Director, Development Review and Regulation, CLOCA  
Ian Kelsey, Aquatic Biologist, CLOCA  
Diana Shermet, Natural Heritage Resource Analyst, CLOCA  
Kathy Luttrell, Terrestrial Resource Analyst, CLOCA

enc.

Hydro One’s responses to Central Lake Ontario Conservation Authority’s general comments on the draft ESR:

<b>Central Lake Ontario Conservation Authority’s general comment</b>	<b>Hydro One’s response</b>
None of the background information provided to CLOCA prior to the release of the draft ESR is provided in the appendices of the draft ESR and there is little reference made to the noted reports/ information provided to CLOCA.	As a matter of standard practice, Hydro One includes summaries of technical reports in ESR documentation (i.e., to avoid unduly large submissions which are potentially confusing to non-technical readers). Opportunities are provided to discuss technical information and selectively release documents to agencies.
There is no comprehensive background report on hydrogeology for the proposed project.	Hydro One attempts to fully address the requirements of agencies. Opportunities are provided to review and discuss technical information. The level of detail in ESR documentation need not break from conventional practice based on agencies preferences. Hydro One will provide a comprehensive background report to CLOCA
CLOCA would like to ensure that a minimum 30 m setback from the Harmony Creek tributaries is maintained as much as possible	Hydro One agrees to the 30 m setback where possible and will erect protective fencing to control and protect this setback.
The northwest corner of the station is shown to encroach within approximately 22 m of the top of the slope for the grade change to the station elevation. CLOCA will require buffer strip plantings (native species) within any areas where the station encroaches the existing valleylands associated with the tributaries of Harmony Creek.	Hydro One agrees to this condition and has stated in the draft ESR that we will work in conjunction with CLOCA regarding all vegetative restoration.
CLOCA does not support access to the site via Langmaid Road as it would require considerably more disturbances as this route to the station is much longer and requires a watercourse crossing. Access from Townline Road would be much shorter and does not require a watercourse crossing.	Hydro One also supports the Townline Road access for many of the same reasons.
<p><b>Connection of 230 kV lines to station:</b></p> <p>CLOCA can support the proposed preferred Alternative 1 provided that restoration plantings</p>	Hydro One has committed to the 2:1 ratio for remedial planting and the approval from MNR for the removal and planting of butternut. Further Hydro One will meet with CLOCA to

<p>are completed in a 2:1 ratio for the remedial planting area and all provisions for butternut restoration are completed in accordance with SAR requirements set forth by the MNR.</p>	<p>optimize the restorative planting values and include any other possible stakeholder values.</p>
<p><b>Significant woodlands:</b></p> <p>CLOCA will require detailed plans on all aspects of work in this area including restoration plans at the suggested 2:1 planting ratio to ensure that the vegetation replacement area meets or exceeds a 3.0 ha area.</p>	<p>Hydro One agrees to provide a detailed plan of the work activities and as noted above restoration at a 2:1 ratio and conference with CLOCA (and others) to optimize restorative values.</p>
<p><b>Significant valleylands:</b></p> <p>The project will impact areas adjacent to the Harmony Creek valleylands along the west and north sides of the station. CLOCA will review construction and grading plans at the detailed stage and will require strict adherence to erosion and sediment control plans required for all areas adjacent to the Harmony Creek valleylands.</p>	<p>Hydro One will provide the plans and honour commitments in those plans as requested. Where setbacks from sensitive features can be greater than 30 m and still allow for construction, this will be implemented.</p>
<p><b>Significant wildlife habitat:</b></p> <p>The ESR states that “no animal movement corridors are known to exist”, however according to CLOCA’s Black/ Harmony/ Farewell existing conditions report, the site contains both landscape and local corridors, that are present within the Grandview sub-watershed and the Farewell watershed. Potential restoration opportunities should be explored further to enhance these animal movement corridors.</p>	<p>Agreed. As indicated in other responses it is our intent to meet with CLOCA to ensure that all planting is undertaken in a manner that would optimize such values (i.e., linkages).</p>
<p><b>Wetlands:</b></p> <p>There are small wetland pockets located immediately east of the woodland area. CLOCA would like to see the establishment of a larger natural buffer between the pocket wetland areas and adjacent agricultural fields.</p>	<p>This can be included as a component of the restoration planting plan done in conjunction with CLOCA.</p>
<p><b>SAR:</b></p> <p>CLOCA will assist the MNR and Hydro One in the review and implementation of restoration</p>	<p>Agreed</p>

efforts related to SAR if required.	
<b>Hydrology:</b>  CLOCA would like to ensure that any watercourse crossings (temporary and permanent) within the Harmony Creek valleylands/ tributaries are kept to a minimum.	In recent correspondence with CLOCA we have revised the number of crossing from two (2) permanent and three (3) temporary creek crossing down to two (2) permanent crossings. This has been done in conjunction with our Lines Construction staff in an effort to reduce our impacts. This planning has also eliminated the need for equipment access (and the need for an access road along the rights-of-way in the woodlot).
<b>CLOCA approvals:</b>  All works in or adjacent to the noted tributaries will be reviewed and assessed accordingly within the context of the <i>Fisheries Act</i> .	Agreed
<b>MOU with Conservation Ontario:</b>  CLOCA will require that Hydro One follow the requirements outlined in the MOU, particularly <b>Appendix B</b> – Best Management Practices.	Agreed
<b>Stormwater management:</b>  CLOCA will review all aspects of stormwater management for the project, please refer to CLOCA's Stormwater Management Guidelines.	Agreed.

Hydro One’s responses to Central Lake Ontario Conservation Authority’s specific comments on the draft ESR:

Central Lake Ontario Conservation Authority’s specific comment	Hydro One’s response
<p><b>Executive Summary:</b></p> <p>Reference to CIM is missing</p>	<p>This will be included in final ESR.</p>
<p><b>Hydrology and Hydrogeology (p.31):</b></p> <p>There are additional drainage features not addressed in the ESR which are also part of CLOCA’s Natural Heritage System.</p>	<p>These will be added in the final ESR.</p>
<p><b>Hydrology and Hydrogeology:</b></p> <p>The report should include a map to show the overlay of the ORM planning boundary and the physiographic region/ surficial geology for clarity.</p>	<p>This map will be added in the final ESR.</p>
<p><b>Hydrology and Hydrogeology (p.36):</b></p> <p>“sandy silt till extending from surface to the base of the boreholes at 10 to 15 BGS” is confusing, suggests that it be clarified that these isolated seams of silty sand are more the exception than the rule.</p>	<p>We will clarify this statement in the final ESR.</p>
<p><b>Hydrology and Hydrogeology (p.36):</b></p> <p>It should be made clear that there are no delineated vulnerable areas on the footprint of the transformer station versus the site.</p>	<p>This will be clarified in the final ESR.</p>
<p><b>Hydrology and Hydrogeology (p.41):</b></p> <p>Provide screened depth information (<b>Table 3-4</b> does not), and the paragraph should be re-written to clarify the thickness of the aquatard (surficial materials) when compared to the depth of the wells.</p>	<p>These additions will be included in the final ESR.</p>
<p><b>Monitoring Program:</b></p> <p>Suggests that Hydro One conducts pre-</p>	<p><b>Section 7.2</b> Hydrology addresses monitoring well testing on the site and <b>Table 7-1</b> Hydrology under the Socio-economic section also notes the</p>



<p>construction water level and water quality sampling for on-site monitoring wells as well as sampling for area residents and provide this data as baseline conditions.</p>	<p>same.</p> <p>It is our intent to retain a minimum of three (3) wells on site in appropriate locations to be used for this monitoring.</p> <p><b>Table 4-6</b> provides an offer by Hydro One to adjacent landowners for the testing of their well pre, during and post construction.</p>
<p><b>Monitoring Program:</b></p> <p>Post-construction monitoring program should be carried for a minimum two year period after completion of all site activities, should include water level and water quality monitoring for down-gradient site and boundary monitoring wells.</p>	<p>It was conveyed verbally. This timeline will be specified in the final ESR.</p>
<p><b>Fisheries:</b></p> <p><b>Figure 3-5</b> (p.34) is missing a small tributary located between reaches 1-4 and 1-5 on the south branch.</p>	<p>This will be corrected in the final ESR.</p>
<p><b>Fisheries (p.146):</b></p> <p>In-water works conducted outside of July 1 – September 15 window must mitigate any impacts.</p>	<p>This will be clarified in <b>Section 7.1.2</b> in the final ESR.</p>
<p><b>Natural Environment (Section 7.2):</b></p> <p>Restoration opportunities should be explored within the headwater tributary of</p> <ol style="list-style-type: none"> <li>1) Catchment A</li> <li>2) Catchment D</li> </ol> <p>Other potential restoration opportunities are</p> <ol style="list-style-type: none"> <li>3) Private lands located north of Concession 7 along Langmaid Road</li> <li>4) Four off-line ponds located along Farewell Creek north of the Clarington TS property</li> </ol>	<p>As noted in other responses Hydro One will work with CLOCA to optimize all restoration opportunities. The basis for the determination of area lost and restoration opportunities will largely on CLOCA's Natural Heritage System mapping and information.</p>
<p>There is a lack of consistency that needs to be</p>	<p>This will be reviewed and corrected in the final</p>

<p>addressed as to the number of retainable butternuts being removed (p.134, p.138, p.146 and p.157)</p>	<p>ESR.</p>
<p><b>Draft “Clean Equipment Protocol for Industry” (p.141):</b></p> <p>CLOCA encourages Hydro One and all out-sourced construction staff to follow this protocol during the construction and maintenance of the project.</p>	<p>We will obtain a copy of this draft document and include it into our Environmental Specifications for construction and operations to reduce impact associated with the introduction of non-native invasive species.</p>
<p><b>Breeding bird window (p.148):</b></p> <p>While the fisheries and breeding bird timing windows are identified in <b>Section 7</b> (May 1 to July 31), the product schedule should reflect that all work will be done in accordance with these timing windows.</p>	<p>This will be clarified in the final ESR.</p>
<p><b>Minimum of 1:1 compensation for impacting CLOCA’s NHS will have to be met.</b></p> <p>The ESR should reflect CLOCA’s comments and Hydro One’s commitment to the restoration of the NHS impacted by this project.</p>	<p>Hydro One has committed to a 2:1 compensation. This is provided in the draft ESR and previous responses. What will be clarified is our commitment to the determination of loss and subsequent restoration based upon the use of CLOCA’s Natural Heritage System as agreed upon in these meetings.</p>
<p><b>Agricultural resources (Section 7.3.2):</b></p> <p>This section should be changed to address the restoration commitments of Hydro One regarding the impacted NHS.</p>	<p>This will be revised in the final ESR.</p>
<p><b>Agricultural resources (Section 7.3.2):</b></p> <p>Monitoring of lease agreements should also be explored to ensure the maintenance and preservation of any restoration work done as part of Hydro One’s restoration compensation commitments.</p>	<p>Hydro One has a strong interest in ensuring the preservation and protection of restored areas. Lease agreements will respect this requirement.</p>



December 19, 2012

The Regional  
Municipality  
of Durham

Planning and Economic  
Development Department

Planning Division

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**RE: Regional Comments on the Draft Environmental Study Report  
prepared by Hydro One for the Clarington Transformer Station  
Your Report Number: 590-CLEA-12-11  
Regional File Number: E03 69**

The following comments have been prepared in response to your "Notice of Completion" for the above noted Draft Environmental Study Report (ESR) for the Clarington Transformer Station (TS) project in Clarington. This ESR is intended to satisfy the Class Environmental Assessment for Minor Transmission Facilities (Class EA) process requirements for your submission to MOE.

The Ontario Power Authority (OPA) has advised Hydro One that the Pickering Nuclear Station will be retired between 2015 and 2020. When the Pickering NGS goes out of service, its generating capacity must be replaced with power from Hydro One's transmission system. Since existing transmission facilities servicing Pickering, Ajax, Whitby, Oshawa and Clarington are not capable of meeting the above noted load restoration requirements, OPA has recommended that Hydro One build the required transformer facilities at your property located northeast of Concession Road 7 and Townline Road North in Clarington by the spring of 2015. The justification and location for the proposed new facilities was determined by OPA and included an analysis of alternative sites as suggested during the consultation process. These investigations concluded that the subject property in Clarington (previously named Oshawa East TS) was the only reasonable transformer location from a technical and economic perspective. The previously approved Enfield TS facility will also be built on this property when local demand warrants its construction.

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### **Regional Official Plan Conformity**

This subject property is designated "Prime Agricultural Areas" and "Oak Ridges Moraine Areas" in the Durham Regional Official Plan. The existing hydro transmission lines are also shown on Schedule "A" - Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule.

Policies 5.2.5 through 5.2.8 of the Regional Official Plan specifically address the requirements for new utility facilities being located here in Durham Region. Policy 5.2.5 for example, states that when considering "the location, design and construction of utilities, the proponent must ensure that the negative impacts and constraints on the natural, built and cultural environments will be minimized." This policy also states that "proponents shall give primary consideration to existing utility corridors in locating and designing new utilities." Section 5.2.7 states among other matters that "electric power facilities are permitted in all land use designations, provided that the planning of all such facilities satisfies the requirements of the Environmental Assessment Act and is carried out having regard to other policies of this Plan." The proposed Clarington TS site appears to meet the Regional Official Plan objectives given it has been planned in accordance with the Class EA for minor transmission facilities and has had regard for the policies of the Regional Official Plan.

Please correct the statement in Section 3.2.1 Land Use on page 51 of your ESR document which states that "The current land use designation is "utility" (for current and future use) and is zoned agricultural by the Durham Regional Official Plan (2008) ...." The sentence should say, "The subject property is designated "Prime Agricultural Areas" and "Oak Ridges Moraine Areas" in the Durham Regional Official Plan. The existing hydro transmission lines are also shown on Schedule "A" - Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule. Electric power facilities are permitted in all land use designations."

### **Provincial Policy Statement (PPS)**

Section 1.6.1 of the Provincial Policy Statement (PPS) states that "Infrastructure and public service facilities shall be provided in a coordinated, efficient and cost-effective manner to accommodate projected needs." Section 1.6.2 further stipulates that "The use of existing infrastructure and public service facilities should be optimized,

wherever feasible, before consideration is given to developing new infrastructure and public service facilities." The Hydro One site in Clarington is consistent with these requirements as it will provide a continued supply of electricity to existing and future users.

### **Other Provincial issues**

The proposed new utility uses are located within the limits of the Greenbelt Plan and the Oak Ridges Moraine.

### **Greenbelt Plan**

The Greenbelt Plan recognizes that "Infrastructure is important to economic well-being, human health and quality of life in southern Ontario and the Greenbelt." The Plan also states that "Existing infrastructure must be maintained and new infrastructure will be needed to continue serving existing and permitted land uses within the Greenbelt." The Plan further recognizes that "major infrastructure servicing national, provincial and inter-regional needs traverses the Greenbelt" and that "new and or expanded facilities will be needed in the future to serve the substantial growth projected in Southern Ontario." Policy 4.2.1 2.d) of the Greenbelt Plan states that "New or expanding infrastructure shall avoid key natural heritage features or key hydrologic features unless need has been demonstrated and it has been established that there is no reasonable alternative;" Policy 4.2.1 2.e) further states the "Where infrastructure does cross the Natural Heritage System or intrude into or result in the loss of a key natural heritage feature or key hydrologic feature, including related land-form features, planning, design and construction practices shall minimize negative impacts and disturbance on the features or their related functions, and where reasonable, maintain or improve connectivity. The Region is satisfied that the proposed utility uses meet the general principals and intent of the above noted policies because they are required to serve existing and future electrical needs of residents and businesses in the GTA. In addition, the new facilities will be constructed and operated in a manner that minimizes any negative impacts to sensitive environmental features and functions in the area. Please refer to the comments and recommendations you receive from the Central Lake Ontario Conservation Authority (CLOCA) regarding specific mitigation and/or environmental design requirements for this project.

### **Oak Ridges Moraine**

The draft ESR however, does not include any conclusions about how the proposed new uses meet the approval policies and standards requirements of Section 41 of the Oak Ridges Moraine Plan.

### **Screening Issues**

The ESR report indicates that archaeological and cultural heritage, noise and potential spills studies are being conducted to identify and address required mitigation measures resulting from the proposed new utility facilities. These planning and landuse compatibility issues will be reviewed through submissions and approvals by the Ministry of Tourism, Cultural and Sport (MTCS) and the Ministry of the Environment.

### **Regional Servicing, Transportation and Health Comments**

There are no Regional water or sanitary sewer services planned for this area. Townline Road is designated as a future Type B arterial in the Durham Regional Official Plan. Environmental constraints in this area may alter the final road alignment for Townline Rd which will most likely be a long term City of Oshawa construction initiative. Although the Regional Works, Durham Regional Police Services and the Durham Emergency Measures Office did not raise any concerns with this project, they should be consulted on any related equipment transportation routing, traffic, access, emergency service and response, security or other site planning activities. Please contact this Department regarding your proposed tree cutting activities.

The Regional Health Department had no objection to the proposed new facilities provided requirements under the applicable municipal by-laws and various Environmental Compliance Approvals with the MOE are met. The Health Department understands that Hydro One will be conducting well water tests for interested residents before, during and after construction to ensure well water quality has not been adversely affected by construction activities. Clarington and/or MOE may require an ongoing well water monitoring program during the operating life of the Transformer station to ensure potential mineral oil discharges from the on-site containment system do not contaminate or negatively impact groundwater resources.

### **Conclusion**

Based on the above, the Region does not require a higher level environmental assessment (Part II Order) to support the proposed new 500 (kV)/230(kV) transformers, switchyard, relay buildings, electrical panel building and associated connection facilities and equipment you are proposing to construct as part of this project. The Region expects that the issues raised in this submission will be addressed by the Final ESR before the approval from the MOE.

Should you have any questions with regard to these comments please contact Neil Henderson, Principal Planner in the Current Planning Branch.

Yours truly,



Brian Bridgeman, MCIP, RPP  
Director of Current Planning

cc: Ministry of the Environment  
Clarington Planning Services Department  
Oshawa Development Services Department  
Ivan Ciuciura, Durham Emergency Management Office  
John Molica, Regional Works Department  
Dianne Sanjua, Regional Health Department  
Chris Leitch, Strategic Planning  
PC Paul Hawrychuk, Durham Regional Police Services

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

February 26, 2013

Mr. Brian Bridgeman  
Director of Current Planning  
Regional Municipality of Durham  
605 Rossland Rd. E., 4<sup>th</sup> Floor  
P.O. Box 623  
Whitby, Ontario L1N6A3

**RE: Clarington TS Class EA draft Environmental Study Report (ESR) – Durham Region Planning Division review comments**

Dear Mr. Bridgeman:

Thank you for your December 19 comments on the draft Environmental Study Report (ESR) for our proposed Clarington Transformer Station.

In your letter, you provide comments in various categories such as:

- Regional Official Plan Conformity
- Provincial Policy Statement
- Other Provincial Issues
- Greenbelt Plan
- Oak Ridges Moraine
- Screening Issues
- Regional Servicing, Transportation and Health

The attached table responds directly to your comments within each of the categories.

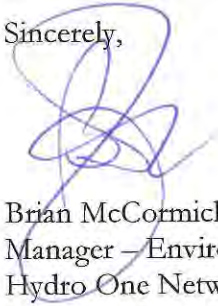
With the above, we trust that your comments have been addressed.

We have been carrying out the Class EA process for numerous projects over many decades and we are confident that we have complied with all EA Act requirements throughout the planning of the proposed Clarington TS project. We are also confident that the potential environmental effects of this project will be mitigated appropriately while continuing to consult with the required regulatory agencies as well as the municipalities. We look forward to working closely with the Regional Municipality of Durham throughout the course of this project.



Please feel free to contact me or Laura Rynard, Environment Planner at 416-345-5811 or [laura.rynard@hydroone.com](mailto:laura.rynard@hydroone.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Dorothy Mozynski, EA Coordinator – Central Region, Ministry of the Environment  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE  
Faye Langmaid, Manager of Special Projects – Clarington Planning Services Department  
Paul Ralph, Director of Planning Services – Oshawa Development Services Department  
Ivan Ciuciura, Durham Emergency Management Office  
John Molica, Durham Regional Works Department  
Dianne Sanjua, Durham Regional Health Department  
Chris Leitch, Durham Strategic Planning  
PC Paul Hawrychuk, Durham Regional Police Services

enc.

Hydro One’s responses to Durham Region’s comments on the draft ESR:

Durham Region’s comment	Hydro One’s response
<b>Regional Official Plan Conformity</b>	
The proposed Clarington TS site appears to meet the Regional Official Plan objectives given it has been planned in accordance with the Class EA for Minor Transmission Facilities and has had regard for the policies of the Regional Official Plan.	No response required.
Correct statement in <b>Section 3.2.1</b> (p.51) to say, “The subject property is designated “Prime Agricultural Areas” and “Oak Ridges Moraine Areas” in the Durham Regional OP. The existing hydro transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule. Electric power facilities are permitted in all land use designations”	This will be corrected in the final ESR.
<b>Provincial Policy Statement</b>	
Hydro One site in Clarington is consistent with the PPS requirements as it will provide a continued supply of electricity to existing and future users.	No response required.
<b>Other Provincial Issues</b>	
The proposed new utility uses are located within the limits of the Greenbelt Plan and the Oak Ridges Moraine.	See Greenbelt Plan and Oak Ridges Moraine below.
<b>Greenbelt Plan</b>	
The Region is satisfied that the proposed utility uses meet the general principles and intent of the Greenbelt Plan policies because they are required to serve existing and future electrical needs of residents and businesses in the GTA.	No response required.
Please refer to the comments and recommendations you receive from CLOCA regarding specific mitigation and/or	Hydro One will continue to work closely with CLOCA, other agencies and municipalities throughout the course of this project.

<p>environmental design requirements for this project.</p>	
<p><b>Oak Ridges Moraine</b></p>	
<p>The draft ESR does not include any conclusions about how the proposed new uses meet the approval policies and standards requirements of <b>Section 41</b> of the ORMCP.</p>	<p>Hydro One agrees that it must satisfy <b>Section 41</b> of the ORMCP.  This will be clarified in the final ESR.</p>
<p><b>Screening Issues</b></p>	
<p>The planning and land use compatibility issues will be reviewed through submissions and approvals by MTCS and MOE (e.g., archaeology, heritage, noise and drainage)</p>	<p>Hydro One will continue to work closely with the relevant agencies and municipalities to obtain the necessary permits and approvals required for this project.</p>
<p><b>Regional Servicing, Transportation and Health Comments</b></p>	
<p>Regional Works, Durham Regional Police Services and the Durham Emergency Measures Office should be consulted on any related:</p> <ul style="list-style-type: none"> <li>• equipment transportation routing</li> <li>• traffic</li> <li>• access</li> <li>• emergency service and response</li> <li>• security</li> <li>• other site planning activities</li> </ul>	<p>Hydro One will be consulting with the noted departments regarding the listed items.</p>
<p>Please contact the Planning and Economic Development Department regarding the proposed tree cutting activities.</p>	<p>Hydro One will be consulting with the noted department regarding tree removal.</p>
<p>Regional Health Department had no objection to the proposed new facilities provided requirements under the applicable municipal by-laws and various Environmental Compliance Approvals (ECA) with the Ministry of the Environment (MOE) are met.</p>	<p>As indicated in the draft ESR, Hydro One will be adhering to the municipal noise by-law during construction, and will obtain the necessary permits and approvals from various regulatory agencies, including the ECAs from the MOE.</p>
<p>The Health Department understands that Hydro One will be conducting well water tests for interested residents before, during and after construction to ensure well water quality has not been adversely affected by construction activities.</p>	<p>To clarify, Hydro One has offered to monitor the private water wells on adjacent properties, before, during and after construction for a period of two years.</p>
<p>Clarington and/or MOE may require an ongoing well water monitoring program during the</p>	<p><b>Section 7.2</b> Hydrology addresses monitoring well testing on the site and <b>Table 7-1</b> Hydrology</p>

operating life of the station to ensure potential mineral oil discharges from the on-site containment system do not contaminate or negatively impact groundwater resources.

under the Socio-economic section also notes the same.

It is our intent to retain a minimum of three (3) wells on site in appropriate locations to be used for this monitoring. All wells will be located in a downgradient location in a position that would provide for proper monitoring.

## **Appendix B9: Part II Order Requests and Hydro One Responses**





# JOHN R. O'TOOLE

Member of Provincial Parliament  
Durham



December 14, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto ON M5G 2P5

Dear Yu-San Ong:

This letter is further to the public notice inviting input on the Draft Environmental Study Report for the Clarington Transformer Station.

In view of the concerns raised by local residents about the vulnerability of this site due to its connection with the Oak Ridges Moraine and potential environmental impacts, I would respectfully suggest that a higher level of assessment is required. In my view, this project is not a minor transmission facility that could be planned under the provisions of a Class Environmental Assessment. Accordingly, I would be in support of a Part II Order request that would require a more thorough assessment.

Hydro One will, no doubt, also be aware that suggestions have been made about other transformer sites being available at locations that are better candidates for an industrial development of this magnitude. One such potential transformer site would be at the existing Pickering Generating Station, which is scheduled to be phased out within the next decade. In my view, this alternative is a further indication that a more rigorous environmental assessment is required.

Thank you for the opportunity to comment. I would appreciate being kept informed

For your reference, a copy of a letter I have sent the Minister of the Environment in support of a Part II Order request is attached.

Yours truly,

John R. O'Toole, MPP  
Durham

Encl.





# JOHN R. O'TOOLE

Member of Provincial Parliament  
Durham



December 14, 2012

The Hon. Jim Bradley  
Minister of the Environment  
135 St. Clair Ave W, 15th Flr  
Toronto ON M4V 1P5

Dear Minister:

This letter is in support of my constituents who have requested a Part II Order regarding the proposed Clarington Transformer Station located on Townline Rd. N., and just north of Concession 7 in former Darlington Township. (Now the Municipality of Clarington.)

In my view, consideration of this multi-million-dollar industrial project impacting the Oak Ridges Moraine should not proceed. That being said, if the proponents insist on moving forward, then the development should not be restricted to review under the Class Environmental Assessment for Minor Transmission Facilities. If this site is to be considered, there is the need for a more rigorous level of assessment.

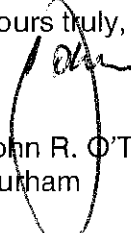
Such an assessment would take into account factors such as the following:

- The impact of the development on extensive underground water resources and the natural environment of the Oak Ridges Moraine.
- Impact on the health and safety of local residents.
- The loss of productive farmland.
- Establishing a trend for large scale industrial development in a rural community
- The need to investigate other viable sites in areas more suited to industrial development. For example, with the expected closing of the Pickering Generating station, Hydro One should consider the Pickering site as a possible transformer location because it is already in a highly industrial area that is being used for generating electricity. Perhaps, a transformer station at Pickering could be considered in conjunction with a future generating plant.

In view of the above concerns, I would respectfully request a Part II Order to "bump up" this matter to a full environmental assessment.

Thank you for your consideration. I look forward to your reply.

Yours truly,

  
John R. O'Toole, MPP  
Durham

Encl.

c. Michael Harris, MPP – Opposition Environment Critic

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Constituency Office: 75 King St. E. • Bowmanville • Ontario L1C 1N4 • Tel. 1-800-661-2433 • (905) 697-1501 • Fax (905) 697-1506

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Email: Community.Relations@HydroOne.com



**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

Mr. John R. O'Toole  
MPP Durham  
Constituency Office: 75 King Street East  
Bowmanville, Ontario L1C 1N4

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear Mr. O'Toole:

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter notes concerns for the proposed project being defined as a Class Environmental Assessment (EA) project. A 500/230 kilovolt (kV) TS falls within the criteria defined in the Class EA for Minor Transmission Facilities (Ontario Hydro, 1992), which was approved by the Ministry of the Environment (MOE) under the *EA Act*. See **Section 1.5.1** of the draft ESR. **Section 6** refers to the proposed project's description and **Figure 1 -3** shows the conceptual layout for the proposed station.

Your letter also expresses concerns about the decision to locate the station on the Oak Ridges Moraine and the associated impacts to groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the station



property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. To ensure groundwater depth and quality, Hydro One has installed monitoring wells on site which will be monitored at regular intervals.

Further details regarding groundwater can be found in the following sections of the draft ESR. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter also notes concerns about the impacts of the proposed station on the natural environment. With more than 280 transformer stations in Ontario, Hydro One has a strong track record of environmental compliance and stewardship, and is committed to the completion of a comprehensive EA and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed Ministry of Natural Resources (MNR) protocols. Hydro One ensures that all assessments or inventories are submitted to the relevant review agencies to ensure we have included their interests and recommendations and comply with all of their requirements. Depending upon the nature of the resource and the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring. More details on Hydro One's efforts on the natural environment are located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a 'no net loss' objective to terrestrial and aquatic habitat and, where possible, we try to achieve a 'net gain'. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To ensure that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

Your letter expresses concerns about the health and safety of the local residents. Clarington TS will not result in an increase in Electric and Magnetic Fields (EMF). Any EMF that exist at the site are a result of the existing 230 kV and 500 kV transmission lines that already exist on the property. EMF are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations, and transmission and distribution lines. For more than 30 years, research studies have examined questions about EMF and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMF cause or contribute to adverse health effects. Hydro One looks to Health Canada for guidance on EMF issues and has enclosed its Frequently Asked Questions on this matter in **Appendix E** in the draft ESR.

Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible and ensuring community safety. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

Your letter also raises concerns for the loss of productive farmland as an implication of the proposed project. The total area of cultivated land affected by the proposed station, including the permanent access road and vegetation restoration, will be approximately 20 hectares (ha). Agricultural land that is cleared or damaged during construction, including temporary warehousing areas, will be restored after construction is complete. Current agricultural land located outside of the project area will not be affected by the proposed project. Refer to **Section 7.3.2** of the draft ESR.

Your letter contends that the proposed station may attract large scale industrial development in a rural community. Regarding this concern, this station is not being built for the purpose of supporting or attracting either current or future industrial/commercial development. As mentioned previously, Clarington TS is required to address the eventual closure of Pickering NGS. Further, any development that might be considered in this area would be subject to approval by the Municipality of Clarington and other approval agencies, as required.

You letter also cites the need to investigate other viable sites in the area. Following recommendations from the Ministry of Energy that came out of the public inquiry “Report of the Solandt Commission” in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that “the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.” This property is the most logical and the only viable location to accommodate the proposed station because it meets the size requirement, is located where the 230 kV and 500 kV lines meet, and it is already owned by Hydro One.

During the course of the Class EA process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on the rationale of the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Mr. Michael Harris, MPP – Kitchener-Conestoga, PC Environment Critic  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE



**Michael Harris, MPP**  
Kitchener-Conestoga

Queen's Park  
Room 344, Legislative Building  
Toronto, Ontario M7A 1A2

Tel: 416.325.3130 Fax: 416.325.3214  
michael.harris@pc.ola.org  
**MichaelHarrisMPP.ca**

December 17, 2012

Hon. Jim Bradley  
Minister of the Environment  
77 Wellesley Street West  
11th Floor, Ferguson Block  
Toronto, ON, M7A 2T5

Dear Mr. Bradley,

I would like to highlight the concerns raised by many Ontarians about the proposed location of the Clarington transformer site located on the Oak Ridges Moraine.

I ask you, as the Minister of the Environment, to ensure that all appropriate steps are taken to protect this important resource, which is the main source of drinking water for thousands of residents in Ontario.

I have listed the following concerns about the proposed site brought to my attention by my colleague John O'Toole, MPP for Durham:

1. The Class Environmental Assessment failed to disclose the severe hydrological concerns and the precise size of the project;
2. This is more complex project than the types of projects normally covered under a Class Environmental Assessment;
3. No documentation has been received from Hydro One identifying the depth to the ground water when locals reported open springs and seepage areas on the projected site;
4. No lab test results have been provided that proves that this type of loose water-saturated soil found on the site would support five 100-tonne transformers;
5. To date, no signs of bedrock have been found; and,
6. A full cost analysis has not been provided on the Clarington site and alternate site suggestions have not been evaluated on a cost or savings basis.

For these reasons, as well as others raised by many local residents and even on-site engineers, I ask that you consider initiating a Part II Order request to complete a full Individual Environmental Assessment of the Clarington transformer site.

Thank you for your attention to this very important matter, and I look forward to hearing from you.

Sincerely,

Michael Harris, MPP  
Kitchener-Conestoga  
PC Environment Critic

Cc: Mr. John O'Toole, MPP Durham  
Mr. Yu-San Ong, Environmental Planner, Hydro One Network Inc.  
Mr. Clint Cole, resident of the municipality of Clarington

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 12, 2013

Michael Harris, MPP  
Kitchener-Conestoga  
PC Environment Critic  
Queen's Park  
Room 344, Legislative Building  
Toronto, Ontario, M7A 1A2

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear Mr. Harris:

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you express concerns about the decision to locate the proposed station on the Oak Ridges Moraine and its impacts on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011).

Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the station property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. To ensure groundwater depth and quality, Hydro One has installed monitoring wells on site which will be monitored at regular intervals.

Your letter also outlines concerns about the lack of hydrological information provided in the draft ESR. Hydro One has undertaken a drilling investigation at 25 locations across the site. These locations were selected to represent the soil and hydrological conditions for the site as a whole and specifics associated with transmission tower locations and the TS. The boreholes were drilled to a depth of up to 15 metres and were used to determine both the soil and hydrological conditions that needed to be taken into consideration for construction and operation purposes. Results of this investigation, as well as well records, indicated that the site was overlaid with dense sandy silt till ranging from 10 to over 30 metres in depth above the aquifer which the majority of the nearby wells are located in. This till retards water infiltration and is termed an aquatard. These results explain why there is no significant groundwater recharge areas associated with this site and it is classified as having low aquifer vulnerability to contamination from natural and human impacts (CLOCA, 2011).

Further details regarding groundwater can be found in the following sections of the draft ESR. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter states that the depth of groundwater has not been provided and that open springs and seepage areas within the project site have been reported. You also indicate that “no signs of bedrock have been found”.

The draft ESR under **Section 3.1.1** states that “bedrock underlying the project area consists of Blue Mountain Formation, consisting of blue-grey non-calcareous shales (MNDM, 2012).” This information was retrieved from the Ontario Ministry of Northern Development and Mines in the Ontario Geological Survey and described the bedrock geology of the area. This bedrock is overlain by the South Slope physiographic region – a surficial deposit of varying depths. Bedrock does not emerge within the study area and was not expected by our geotechnical investigation (i.e., which only extended to 15 metres). This is further supported in **Section 3.1.3** well records, where all of the deep wells adjacent to the project area indicate a surficial overburden of 10 – 100 metres with no bedrock encountered.

Your letter also notes concerns for the proposed project being defined as a Class EA project. A 500/230 kilovolt (kV) TS, falls within the criteria defined in the Class EA for Minor Transmission Facilities (Ontario Hydro, 1992), which was approved by the Ministry of the Environment (MOE) under the *EA Act*. See **Section 1.5.1** of the draft ESR. **Section 6** refers to the proposed project’s description and **Figure 1 -3** shows the conceptual layout for the proposed station.

Your final concern contends that full cost analysis on the Clarington TS site has not been provided and that “alternate site suggestions have not been evaluated on a cost or savings basis.” During the course of the Class EA process, no other alternative was considered technically or economically reasonable. The *EA Act*

requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS.

**Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Ms. Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Mr. John O’Toole, MPP – Durham  
Mr. Clint Cole, resident of the municipality of Clarington

Mr. Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE



December 17, 2012

The Honorable Jim Bradley, Minister of the Environment  
Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON M4V 1P5  
Email: minister.moe@ontario.ca

Dear Minister Bradley:

**Re: Request for a Part II Order under the Environmental Assessment Act for Draft Environmental Study Report for the Clarington Transformer Station, Report Number: 590-CLEA-12-11**

Thank you for this opportunity for Save the Oak Ridges Moraine Coalition (STORM) to comment on the draft Environmental Study Report (ESR) for the Clarington Transformer Station (TS). STORM was established in 1989 to raise awareness of the sensitivity of the moraine's ecology to impacts from urban development and other land and resource uses such as aggregate mining, forest destruction and infrastructure projects. STORM was represented on the two provincial initiatives charged with developing long term management strategies for the moraine, the second which provided advice to the government that formed the basis of the current legislation and policy framework.

It is STORM's position that the draft ESR does not adequately address a number of relevant issues and it is for this reason that STORM requests a Part II order. Our rationale for this request is described below.

### **Oak Ridges Moraine Context**

In 2001, the Ontario legislature voted unanimously to enact the *Oak Ridges Moraine Conservation Act*, and in 2002 the government released the Oak Ridges Moraine Conservation Plan (ORMCP) as a regulation under the *Oak Ridges Moraine Conservation Act*. The basis of the ORMCP is the recognition of how important the moraine is to the ecological and hydrological health of south central Ontario as stated by the following purpose:

*"to provide land use and resource management planning direction to provincial ministers, ministries, and agencies, municipalities, municipal planning authorities, landowners and other stakeholders on how to protect the Moraine's ecological and hydrological features and functions."* (Introduction, Purpose of Plan, Oak Ridges Moraine Conservation Plan, 2002).

Section 6 of the *Oak Ridges Moraine Conservation Act* states:

*"For greater certainty, the Plan is not an undertaking as defined in subsection 1 (1) of the Environmental Assessment Act, but that Act continues to apply within the area to which the Plan applies. 2001, c. 31, s. 3 (6).*





The area to which the Plan applies is section 41 of the ORMCP; this section regulates the approval process for transportation, infrastructure and utility projects that are proposed anywhere within the Oak Ridges Moraine Plan Area (Plan Area). As stated in the draft ESR, the Clarington TS is in the Countryside Area designation of the Plan Area. While there are no specific prohibitions for undertakings located in Countryside Areas, as there are for Natural Core and Linkage Areas, there are provisions for protecting key natural heritage features and hydrologically sensitive features as follows (all bolded sections have been added):

*(4) Except as permitted in subsection (5), with respect to land in **a key natural heritage feature or a hydrologically sensitive feature**, all new transportation, infrastructure and utilities uses and all upgrading or extension of existing transportation, infrastructure and utilities uses, including the opening of a road within an unopened road allowance, **are prohibited**.*

*(5) Transportation, infrastructure, and utilities uses may be permitted to cross **a key natural heritage feature or a hydrologically sensitive feature if the applicant demonstrates that,***

*(a) **the need for the project has been demonstrated and there is no reasonable alternative;***

*(b) the planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum;*

*(c) the design practices adopted will maintain, and where possible improve or restore, key ecological and recreational linkages, including the trail system referred to in section 39;*

*(d) the landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way; and*

*(e) the long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the key natural heritage feature or hydrologically sensitive feature.*

*(6) Service and utility trenches for transportation, infrastructure and utilities shall be planned, designed and constructed so as to keep disruption of the natural groundwater flow to a minimum.*

Section 41 (5a) is quite specific that if a project has the potential to impact any of the features identified in sections 22(1) and 26(1) of the ORMCP, then the **need for the project must be demonstrated** and furthermore **that there is no reasonable alternative to this undertaking**. Section 3 of the draft ESR identifies some key natural heritage features and hydrologically sensitive features as identified by the ORMCP, therefore the relevant subsections of section 41 apply to this project.

### **Reasonable Alternatives Not Explored**

The explanation given in the draft ESR regarding how Hydro One dealt with alternatives to this location underscores the need for a Part II order. By its own words the Clarington TS represented the only reasonable alternative from a **technical and economic perspective** as follows:



*“The Clarington TS property was acquired via expropriation in 1978 for the purpose of installing a 500 / 230 kV transformer station. It is Hydro One’s understanding that installing the station facilities at Clarington TS **property is the only reasonable alternative from a technical and economic perspective**” (Page 1 Draft ESR).*

However, the environmental assessment (EA) process is supposed to be about reducing the impact to the **environment**. Despite this, the identification of alternative locations did not include an environmental perspective. As such it’s not possible for the public to see if any weighting was given to loss of significant woodland or disruption to surface or groundwater pathways or destruction of intermittent streams or wetlands in the Clarington location relative to other alternate locations. The fact that this evaluative weighting has either not been included in the draft ESR or was not undertaken at all should be sufficient to trigger a Part II order. Although one can argue that a thorough and transparent assessment of alternatives from an environmental perspective is, by law, a requirement of the EA process, the *Oak Ridges Moraine Conservation Act* requires compliance with relevant policies of the ORMCP including that one which requires that reasonable alternatives be explored.

The purpose of the *Oak Ridges Moraine Conservation Act* and ORMCP is to ensure that land uses and resource management planning maintain and where possible restore and enhance ecological and hydrological integrity of the ORM – the mechanism for ensuring that undertakings under the *Environmental Assessment Act* accomplish this is section 41 with the requirement for a full examination of reasonable alternatives.

In STORM’s opinion Hydro One has not adequately met the legislative requirements of either the *Environmental Assessment Act* or the *Oak Ridges Moraine Conservation Act* and ORMCP, therefore the draft ESR cannot be considered to have addressed all relevant issues.

### **Environmental Features Evaluation Flawed:**

The process used by Hydro One to identify which features are significant and therefore must be considered for further actions is flawed and out of compliance with the requirements of the *Oak Ridges Moraine Conservation Act* and ORMCP. The province of Ontario developed a Technical Paper Series which can be found on the Ministry of Municipal Affairs and Housing website. This technical paper series is described as:

*“...represent[ing] the Province’s approach to implementing Plan policies. The content of the papers does not constitute new policy for the Oak Ridges Moraine; rather it provides clarification and assistance for the implementation of the policies already contained in the Plan. **Adherence to these papers regarding the development of land or changes in land use within the Oak Ridges Moraine Conservation Plan Area will help to ensure conformity with the applicable policies contained in the Plan.** These papers should be read in conjunction with both the *Oak Ridges Moraine Conservation Act, 2001* and the Plan and should not be applied in isolation.” (MAH website <http://www.mah.gov.on.ca/Page4807.aspx>)*

Any and all decision-makers must use these evaluative requirements, whether a municipality or private landowner or Hydro One. It should be noted that while Sections 3.1.5 and 7.2.1 of the draft ESR illustrate this point, other moraine features have been similarly mis-evaluated.



### **Case in Point: Wetlands Not Identified**

The wetlands that were identified on the Clarington TS site are 2.0 and .7 hectares in size and according to section 3.1.5 are not considered provincially significant or key natural heritage features based upon criteria in the provincial policy statement. However these wetlands do qualify as key natural heritage features under the ORMCP using criteria listed in the Technical Paper Series as follows:

- “ For the purposes of applying the policies of the ORMCP, wetlands shall be considered to be:*
- all wetlands regardless of size, evaluated as provincially significant in accordance with the OWES and accepted by MNR;*
  - all other identified wetlands 0.5 hectares or greater in size; and ... ”*
- (MAH website <http://www.mah.gov.on.ca/Page4807.aspx>)

As mentioned above, there is a general lack of robustness in the way that Hydro One has conducted an evaluation of all natural features on the Clarington TS location. STORM strongly recommends that a Part II order is required to redress this failing.

In conclusion, it is STORM’s position that the draft ESR does not adequately reflect the legislative and policy context and imperatives of the *Oak Ridges Moraine Conservation Act* and ORMCP. STORM therefore respectfully requests a Part II order for this undertaking in order for Hydro One to demonstrate legislative compliance.

Thank you again for this opportunity to comment and we look forward to future opportunities to discuss our issues of concern. If you have any questions please contact us at 905 841-9200.

With regards,

Debbe Crandall  
STORM Policy Advisor

**Hydro One Networks Inc.**  
Engineering & Project Delivery  
Environmental Services & Approvals  
483 Bay Street 6<sup>th</sup> Floor South Tower  
Toronto Ontario M5G 2P5  
www.HydroOne.com

Email: Community.Relations@HydroOne.com



**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

Ms. Debbe Crandall  
STORM Policy Advisor  
STORM Coalition  
The Sheppard House, 93A Industrial Parkway South  
Aurora, Ontario  
L4G 3V5

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear Ms. Crandall:

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter you identify the relevant subsections of Section 41 of the Oak Ridges Moraine Conservation Plan (ORMCP) that apply to the Clarington TS project. The proposed project, as defined under the ORMCP, is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)

3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You also express that reasonable alternatives to this undertaking were not fully explored from an environmental perspective. During the course of the Class EA process, no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives and based on knowledge of the project area and other factors. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking. **Section 5.1** provides additional information on rationale of the preferred station location.

Using environmental criteria to identify and assess other site locations that are not reasonable from a technical and economic viewpoint does not add value to the Class EA process and would not change the outcome of the proposed undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

We also understand that you are concerned that the wetlands identified on the Clarington TS site are not considered provincially significant or key natural heritage features. As stated in **Section 3.1.5** of the draft ESR, two wetlands in the project area were identified during the Ecological Land Classification survey (**Figure 3-4**). Both contain three wetland communities and were measured as 2.0 hectares (ha) and 0.7 ha in size. Neither contained suitable habitat for amphibians or reptiles and no species at risk or rare plant species occur in these wetlands. Furthermore, their wildlife function is also considered minimal as they contain no open water for waterfowl stopovers/staging and they are isolated in the landscape with no linkage to other wetlands. From a hydrological perspective, the wetlands are cumulatively small (2.7 ha) and transition from wet to dry in a very short period of time, thus signifying limited storage and retention in providing a significant hydrologic function.

These two wetlands, which have not been previously evaluated by the Ministry of Natural Resources (MNR), are not considered provincially significant because they do not occupy the same watershed (i.e., form a complex), nor do they occur within a distance appropriate to be considered for competing with other

Provincially Significant Wetlands found regionally (i.e., 750 metres). In addition, in consideration of the Ontario Wetland Evaluation System (OWES) evaluation method and its four main components (i.e., Biological, Social, Hydrological, Special Feature), the above two wetland areas are not considered Provincially Significant Wetlands.

Further, both wetlands are currently crossed by four existing 230 kilovolt (kV) transmission lines. The vegetative complex of these wetlands is in part due to the presence of the right of way and the operational maintenance which has taken place over the last six decades. This area will remain as a right of way, and the characteristics of the wetlands will be retained.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

December 14, 2012

Ministry of the Environment  
135 St. Clair Avenue West, 12<sup>th</sup> Floor  
Toronto, Ontario  
M4V 1P5

**Re: Draft Environmental Study Report Clarington Transformer Station**

Dear Sir/Madam:

Members of the Enniskillen Environmental Association have spent innumerable hours reviewing the draft ESR presented by Hydro One. We have yet to be provided with the final ESR and despite that, have been given a limited time frame in which to voice our concerns. It makes our association very wary of the objectives of Hydro One and makes the entire process anything but transparent.

Based on the knowledge acquired by the residents during their investigation of the ESR, we believe the extensive scope of this proposed facility (100 acre site, 5 mega transformers weighing in excess of 100 tons each on unstable ground) exceeds the regulations for a Class Environmental Assessment.

Furthermore, please refer to the following excerpt from the *Environmental Study Report for the Enfield Transformer Station* dated June 17, 2008 and prepared by Hydro One:

“Based on a subsequent geotechnical survey of Site 2 undertaken in March 2007, Geo-Canada Ltd. (2007) determined that the water table at the site is higher than the proposed site grade, i.e. the water table is about 4m below grade, whereas the proposed cut is 10m. As a result, Site 2 was technically unacceptable as a location for the proposed TS due to this hydrological condition, as an elaborate drainage system would be required to divert and discharge the constant groundwater flow.”

Our data analysis provides ample evidence to eliminate this site from consideration for the mega transformer station. The high water table and the above-referenced report by Hydro One rejecting the adjacent site for the same reasons should be sufficient to cancel the project. **If Hydro One still refuses to accept the obvious fact that this location does not work then, at the very minimum, we request the present ESR to be bumped up to a Part 2 for the following reasons:**

1. The Class Environmental Assessment does not address the serious hydrological concerns and the actual size of the project.
2. This is not a minor transmission facility.

3. The ESR is incomplete and does not contain data necessary for our analysis.
4. Hydro One has stalled on providing us with requested bore hole results and analysis.
5. No documentation has been received from Hydro One identifying the depth to the ground water.
6. No lab test results have been supplied to confirm that this type of loose water saturated soil is capable of supporting a massive structure of this size.
7. No documentation of bedrock has been provided even though it is reported in the ESR.
8. No plan concerning construction data has been supplied nor any cost analysis:
  - ✓ Footings information (size, depth)
  - ✓ Mounting pads for transformers (size, depth)
  - ✓ Containment system specifications (location, size, depth)
9. Alternate site suggestions were not evaluated on a cost or savings basis.
10. All of the questions and concerns raised by the people have not been addressed to their satisfaction and many have gone unanswered.

In addition, given the instability of the soil, the amount of water present in the ground, and the issues raised in our review of this draft ESR, **we request the Class Environmental Assessment for Minor Transmission Facilities authorizing Hydro One to build the Enfield Transformer Station be revoked.**

There are numerous serious allegations contesting Hydro One's intention to proceed with this project. Furthermore, the urgent need for power generation has been diffused by statements indicating the existing sources for energy production will continue to operate until 2020 and beyond. This, coupled with the insurmountable engineering challenges with the proposed site as well as its location on an environmentally-sensitive, government-protected piece of the Oak Ridges Moraine, makes the decision appear blatantly obvious. Hydro One should extend its timeline and look elsewhere for a more suitable and environmentally agreeable location.

Enniskillen Environmental Association

Cc Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5



ENNISKILLEN ENVIRONMENTAL ASSOCIATION

TECHNICAL ANALYSIS OF THE PROPOSED  
CLARINGTON TRANSFORMER STATION  
ENVIRONMENTAL STUDY REPORT

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**December 14, 2012**

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**Appendix B (Hydro One Enfield Transformer Station ESR and Map)**

**Appendix C (Relevant Oak Ridges Moraine Conservation Plan Source Documents)**

## OSHAWA-CLARINGTON MEGA TRANSFORMER STATION

### BACKGROUND INFORMATION

Since the hiring of Maurice Strong in 1992 as Chief Executive Officer, Hydro One has been known for its efforts to help protect the environment. In 1994, Mr. Strong purchased rainforest property in Costa Rica supposedly for its protection. To this day, Hydro One advertises its respect and commitment to the environment and to the wishes of the people with regards to the environment. To quote Laura Formosa, President and CEO, ***“We remain committed to continually improving our environmental performance across all of our business lines. We set environmental objectives and targets, monitor our performance relative to expectations and implement programs to achieve continual improvement.”***

The Enniskillen Environmental Association is not fighting the need for a Mega Transformer Station. We understand the reasons for this station but not the urgent timeline and the need to build it on **protected agricultural land** which is located on the **protected Oak Ridges Moraine**.

It has become common knowledge that the Pickering Nuclear Power station will not be shut down until at least 2020. Hydro One has not presented a valid reason for this location other than they own the land. The land was purchased in 1978 prior to the recognition of the Oak Ridges Moraine. The Moraine must be respected by all. Although Hydro states this is the only viable site, there are other locations and land available that would be more suitable. **If an accident like the one at Cherrywood happens in this new location, it could destroy the Oak Ridges Moraine.**

The provincial and federal governments recognized the importance of these lands in 2001 when they introduced legislation and a plan under the Oak Ridges Moraine Conservation Act of 2001. The Oak Ridges Moraine is an environmentally sensitive, geological landform in south central Ontario covering 190,000 hectares. One of the goals of the Green Belt Plan is to promote the protection and restoration of natural and open space connections between the Oak Ridges Moraine, the Niagara Escarpment, Lake Ontario, Lake Simcoe and the major river valley lands, while also maintaining connections to the broader natural systems of Southern Ontario beyond the Golden Horseshoe such as the Great Lakes Coast, the Carolinian Zone, the Lake Erie Basin, the Kawartha Highlands and the Algonquin to Adirondacks Corridor.

**The Oak Ridges Moraine has been identified as a major aquifer recharge area that supplies and makes up some of the headwaters that supply some of these lakes. This aquifer also supplies clean drinking water for thousands of local Ontario residents who get their fresh water for survival from wells.** This is the major reason why we are fighting this Mega Transformer Station. Locate it anywhere else but not on the Oak Ridges Moraine.

## DRAFT ENVIRONMENTAL STUDY REPORT

The draft Environmental Study Report has been reviewed by members of our group. Our questions have not all been answered by Hydro One. Statements in the report are still open to debate. Hydro One, from its own studies, should recognize the fact that this is not a suitable site for a Mega Transformer Station for the following reasons:

1. It is located on Government protected and the environmentally sensitive Oak Ridges Moraine. Specifically, 100 acres of Government protected Class 1, Agricultural Farm Land. **This is a Government protected location due to the sensitivity and valuable nature of the Oak Ridges Moraine and the fact that these are the headwaters for the Harmony and Farewell creeks.** Hydro One should accept the ruling of the Government and waive their rights to invade this type of property based on their past performance as a leader on environmental issues. **Hydro One has never, to our knowledge, taken advantage of its rights to ignore property designations when it involves a property so sensitive and valuable to the people of Canada.**
2. At every meeting held with Hydro One, Mr. Doug Taylor (a member of our group) has reported that **there are open springs located on this property.** Hydro One has repeatedly ignored this information. **At a recent site inspection several springs and several seepage areas were found and documented. Springs where actual flow patterns were worn into the ground by the water flow have also been found and documented. See Appendix A for photograph documentation to confirm existence.**
3. Site 2 was rejected due to a high water table. Sites 1a, 1b, and 1c, have now been amalgamated into one mega 100 acre project site. This proposed site has been selected for the construction of the Clarington Transformer Station. The site is to contain five transformers each larger than a school bus, weighing in excess of 100 tons per unit.

Site 1b has been approved by all agencies for construction of the Enfield Transformer Station. **A recent visit to the site allowed for inspection of three existing monitoring wells which were requested by the Enniskillen Environmental Association to triangulate and monitor the ground water levels. Water was found within inches of ground level on all three monitoring wells. See Appendix A for photograph documentation.**

Hydro One has identified an old well (located hundreds of metres away from the site location) and requested C.L.O.C.A. to have it decommissioned. **The water in this well is also within inches of ground level, another confirmation of the high water table that exists on this site.**

Hydro One has indicated in the E.S.R. that it will be necessary to remove 21 ft. of the overburden to allow for a level setting for the transformer beds. It appears that if 21 ft. of overburden is removed, the transformers will be underwater. How can this proposed station be built for \$270 million knowing the following work will be required?

***Additional costs to consider to build the proposed transformer facility***

A new road access to the property will be constructed with a grade not to exceed a 5 degree incline which requires purchasing more property. An elaborate drainage system will be required to divert and discharge the constant groundwater flow. This system will likely consist of a filtered drainage ditch and sump pumps to control the water which will be directed to a retention pond for suspended solids settling prior to discharge into local drainage (tributary to Harmony Creek). The cut slopes will require protection against erosion. The drainage ditches and cut slopes may require frequent maintenance work to address future local surface erosion. Furthermore, the transformer station will have to be built on raised ground to safeguard against flooding and seepage present in excavations for footings which will have to be removed by pumps and filtered sumps.

Any system failure or blockage will result in serious transformer station maintainability and safety conditions. As a result of the above supplied data, it appears that this station cannot possibly be built at the proposed cost. If it is built, it will be a complete waste of taxpayer's money as the site will never be used.

Please refer to Appendix B concerning the ***Hydro One Enfield Transformer Station Environmental Study Report dated June, 17 2008 which rejects Site 2 as a possible location for the Enfield Transformer Station based on exactly the same criteria that we have supplied for the proposed Mega Transformer Station Project.*** See the attached copy of the page identified in this report. **No land mass in the designated area is safe for any Hydro One project.**

**IN LIGHT OF THE ABOVE INFORMATION WE ARE ALSO ASKING THAT THE ENVIRONMENTAL APPROVAL FOR SITE 1B, THE ENFIELD TRANSFORMER STATION, BE REVOKED AS IT IS SUBJECT TO THE SAME GROUND WATER CONDITIONS OUTLINED ABOVE.**

4. We understand there were two soil sample testings conducted by two different companies and **a request has been made to Hydro One to identify the company that completed the testing that is reported in the ESR. We are also requesting a copy of the written report by the second company, AARKVARK Drilling, since the onsite engineer gave us information that appears to be in contradiction of what is written in the ESR.** This request is also pending.
  
5. **The proposed location on the Oak Ridges Moraine is a major re-charge area as your soil sampling tests verified. The soil is sand all the way down to 50 ft. Drill samples showed significant depths of wet sand. Flowing sand was also found which would indicate the presence of a significant amount of water.**
  
6. **No signs of bedrock were found.** We have wells close to 400 ft. deep and no bedrock was found. Yet, BEDROCK is reported in this ESR. The onsite engineer was looking for BEDROCK but according to information they advised, never hit it.
  
7. **To make this site suitable for the transformers, approximately 21 ft. must be bulldozed to level the ground for installation of the transformers. This will remove a lot of the overburden and make the Moraine more vulnerable.** During the construction there will be spills of diesel fuel, grease, gasoline and various other chemicals that may be used. These spilled chemicals have nowhere to go except into the ground and eventually our water supply.
  
8. **This type of soil, mostly sand, will not support the mega transformers you are proposing for this area (5 transformers at 100 tons each transformer).** The footings planned will never support the weight of these transformers for any length of time, especially with the vibration that this equipment generates. The base of the footings will be located approximately in the area that you describe as shallow well water. The depth of footing will also be just 64 ft. from the deep well water. The soil is sand, silt and some grey clay and with all of the water present, this soil should be like a "bowl of jelly".

The vibrations from the equipment on this type of terrain will be multiplied due to the jelly-like foundation it is sitting on. These large transformers are mounted on very large and heavy sheets of lead to help absorb the vibration. However, total isolation is impossible. These lead sheets are just another source of pollution as they will corrode and deteriorate and wash into the vulnerable ground. Movement is going to occur in the equipment and also the concrete retainment system. Once this movement starts, cracks will begin to form in the system and eventual breakage will occur. This will leave the containment system containing nothing and allowing the contaminants a direct run to the underground water supply. **In short, the proposed containment system will not work in this soil.**

9. **Hydro One has never, to our knowledge, taken advantage of its rights to ignore property designations when it involves a property so sensitive and valuable to the people of Canada.**
  
10. It is not the responsibility of the people to find or suggest alternative sites for this or any other project undertaken by Hydro One. **It is Hydro One's mandate to locate a site that is conducive to a project of this magnitude which is economically feasible without destroying the quality of life of the surrounding residents and protect the environment to the highest level.**
  
11. **Hydro One, based on its past history, must demonstrate environmental responsibility on this issue and cancel the projects proposed for the Oak Ridges Moraine.** Hydro One has an obligation to the Canadian people to be an environmentally responsible company and leave this land in its current state.
  
12. **Hydro One reports there are no fish in streams located on this property.** CLOCA and the Municipality of Clarington report that speckled trout, brown trout, rainbow trout, and chub are, in fact, present in these streams. **The Municipality of Clarington just spent \$59,600.00 to build a fish ladder for a stream in this area!**

**Please explain why Hydro One does not support these findings in their report and indirectly disputes the C.L.O.C.A. and Municipal findings.**

## COMMUNITY IMPACT

If approval is given to Hydro One to build the Mega Transformer Station on the Oak Ridges Moraine, there are several issues which Hydro One must take into consideration. First, and foremost, will be the impact on the community's quality of life.

1. **There will be constant fear and worry of a failure and the destruction of our water supply.**
2. **The proposed location is near the shores of Lake Iroquois, where there are known locations of unstable ground according to a representative from STORM (Save the Oak Ridges Moraine).** Hydro One's core sampling program will confirm that sand, wet sand, flowing sand, and what Mr. Taylor describes as quick sand (based on his past well drilling experience) exists in this location. Due to the amount of water in this soil, we would equate it to a bowl of jelly. This situation creates fear and worry as to the stability of five 100 ton transformers and their containment systems.

Large heavy sheets of lead will be placed under these transformers to try and help isolate some of the vibrations. This just adds one more serious contaminant for us to worry about. The lead sheet will corrode and deteriorate and leach into the ground and our water supply.

3. **During an electrical storm this area is known as a high strike event zone.** The addition of these transformers is going to create a larger area of electro-magnetism which we understand is an attractant of lightning strikes. This can lead to a significant failure.
4. It is inevitable that there is going to be a major failure on this **unmanned site**. There is no possible way for Hydro One to contain the toxic mineral oil and keep it out of the water supply. **According to an onsite engineer from Aarkvark Drilling and Soil Sampling Company, this is a major recharge area for the moraine with sandy, porous soil.** A Cherrywood spill of 160,000 litres of toxic mineral oil will go directly to the water table where it can never be retrieved.
5. As has already been witnessed, **there will be a loss incurred in the value of our homes and property which we have worked hard to maintain.**
6. Somewhere in the future, **Hydro One is going to be forced to look into possible compensation claims for those who will be affected in this area.**



## FINANCIAL WASTE

### **Why the great urgency to build a facility that clearly cannot be put into operation before at least 2030?**

Presently, Ontario is in such financial trouble that the credit rating has been reduced. Hydro One is also in the same situation. Their claim is that this station has to be operational by 2015 when the Pickering facility will be shut down. They claim they must put shovels in the ground by March 2013 to allow them to have the facility completed. **Once this facility is completed in 2015, where is the power going to come from to operate the station?** The new build at Darlington, if it ever happens, cannot be completed at least before 2030. If Hydro One proceeds with its timeline, we will have spent in excess of \$270 million for a facility that is going to have a minimum of 15 years of rust accumulation and corrosion that will leach into the land to our water table. It is common knowledge that Pickering will not be shutdown until at least 2020.

**Alternative sites have been suggested where costs would be reduced but all have been rejected by Hydro One. One recommendation is the Pickering site that will never see any use other than what it has been used for to date.** This is valuable land owned by Hydro One that will go to waste. The entire hydro corridor from Pickering to Cherrywood is populated by 230 KV lines which could be removed to allow for possible tower re-configuration to carry the necessary 500 KV power source to supply new transformers and, in return, send the 230 KV back to Cherrywood's already existing transformers. **The required infrastructure is already in place.** This certainly seems like a significant cost savings effort. It also moves the contentious Clarington Transformer Station to a significantly safer environment and allows the legislated protected lands to remain in their pristine state. Instead of waste there should be substantial savings realized.

The community at large cannot understand why Hydro One doesn't address its electrical needs through alterations to the Cherrywood site, another recommended site. This site could accommodate its needs with some changes that would avoid any negative consequences to the environmentally sensitive Oak Ridges Moraine.

Hydro One has continuously stated that to integrate the transformer station it would create unacceptable overloads and short circuit levels posing safety risks and equipment failure risks. Please explain this reasoning as Hydro One has already stated that Cherrywood will have to be re-configured after the Pickering shutdown. There will be no power supply to the Cherrywood facility once Pickering is decommissioned. Therefore, how do these overload and short circuit conditions actually evolve? The infrastructure is already in place and integrating this new power source should allow for substantial savings in Hydro One's expenditures. **This decision would protect agricultural land, the Green Belt, and the Oak Ridges Moraine which is in keeping with Hydro One's public declaration to respect the environment.**

## REQUEST TO MINISTRY OF ENVIROMENT

Based on the knowledge acquired by members of the Enniskillen Environmental Association during their investigation of the *Draft Environmental Study Report Clarington Transformer Station*, we believe the extensive scope of this proposed facility (100 acre site, 5 mega transformers weighing in excess of 100 tons each on unstable ground) exceeds the regulations for a Class Environmental Assessment.

Furthermore, please refer to the following excerpt from the *Environmental Study Report for the Enfield Transformer Station* dated June 17, 2008 and prepared by Hydro One:

“Based on a subsequent geotechnical survey of Site 2 undertaken in March 2007, Geo-Canada Ltd. (2007) determined that the water table at the site is higher than the proposed site grade, i.e. the water table is about 4m below grade, whereas the proposed cut is 10m. As a result, Site 2 was technically unacceptable as a location for the proposed TS due to this hydrological condition, as an elaborate drainage system would be required to divert and discharge the constant groundwater flow.”

If the data supplied and analyzed in this report does not eliminate the proposed site as a viable location for the exact same reasons as noted in the 2008 Hydro One report and the extreme high water table in this area, **we request the present ESR be bumped up to a Part 2 for the following reasons:**

1. The Class Environmental Assessment does not address the serious hydrological concerns and the actual size of the project.
2. This is not a minor transmission facility.
3. The ESR is incomplete and does not contain data necessary for our analysis.
4. Hydro One has stalled on providing us with requested bore hole results and analysis.

5. No documentation has been received from Hydro One identifying the depth to the ground water.
6. No lab test results have been supplied to confirm that this type of loose water saturated soil is capable of supporting a massive structure of this size.
7. No documentation of bedrock has been provided even though it is reported in the ESR.
8. No plan concerning construction data has been supplied nor any cost analysis:
  - ✓ Footings information (size, depth)
  - ✓ Mounting pads for transformers (size, depth)
  - ✓ Containment system specifications (location, size, depth)
9. Alternate site suggestions were not evaluated on a cost or savings basis.
10. All questions and concerns raised by the people have not been addressed to their satisfaction and many have gone unanswered.

In addition, given the instability of the soil, the amount of water present in the ground, and the issues raised in our review of this draft ESR, **we request the Class Environmental Assessment for Minor Transmission Facilities authorizing Hydro One to build the Enfield Transformer Station be revoked.**

## CONCLUSION

**THERE IS NO MAN-MADE TRANSFORMER THAT CAN BE 100% GUARANTEED FAILURE PROOF. THERE IS NO MAN-MADE CONTAINMENT SYSTEM THAT CAN BE 100% GUARANTEED FAILURE PROOF.**

**IF THIS PROJECT GOES AHEAD, IT WILL INEVITABLY BE OUR DEEP WATER HORIZON ENVIRONMENTAL DISASTER.**

**A CHERRYWOOD TYPE OF SPILL, 160,000 LITRES, WOULD GO DIRECTLY TO THE UNDERGROUND WATER TABLE WHERE IT CAN NEVER BE RETRIEVED.**

**THIS IS AN UNMANNED SITE. WHAT GOVERNMENT OR GOVERNMENT AGENCY WOULD KNOWINGLY EXPOSE THE CANADIAN PEOPLE TO THIS INEVITABLE DISASTER?**

## ACKNOWLEDGEMENTS

The Enniskillen Environmental Association gratefully acknowledges the support of the following people who have provided information:

John O'Toole, MPP for Durham and Conservative Member of Parliament

Debbie Crandall, Executive Director of STORM (Save the Oak Ridges Moraine)

Debbie Gordon, Outreach Coordinator at STORM (Save the Oak Ridges Moraine)

Stephen Bocking, Professor and Chair of Environmental and Resource Science/Studies Program Trent University

Dr. James Buttle, Certified Hydrologist, Professor and Chair of the Department of Geography Trent University

Dan McDermott, Director of Sierra Club Eastern Canada Chapter

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 13, 2013

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear Enniskillen Environmental Association and area residents:

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We received two letters and an associated technical analysis report from you requesting a Part II Order to elevate the status of the project from a Class Environmental Assessment (EA) to an Individual EA. We have had extensive meetings and communications on the proposed station and understand your concerns. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project. Hydro One has made best efforts to respond to all your concerns and questions in your letters and technical analysis report. We are attaching three documents to this letter covering responses to each letter and the technical analysis report.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

With the attached documents, we trust that your comments have been addressed. We look forward to continuing to work with you on this project. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian McCormick".

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

## December 5, 2012 Letter – Hydro One responses

### **Water**

#### *Local wells*

You indicate concerns about local wells, and note that there are wells absent from our records. The well locations provided on Figure 3-9 on page 42 of the draft ESR were obtained from the Ministry of the Environment (MOE) well records. These records are submitted to the MOE when a new well is constructed or an existing well is being altered or abandoned. Hydro One understands that the records may not account for all of the nearby wells as they may have been installed prior to the required date for submission of well records.

#### *Oil spills*

Your letter expresses concerns about oil spillage that may take place, specifically referring to the event that occurred at Cherrywood TS in 2003. As a result of the event at Cherrywood TS, Hydro One has improved its transformer spill management systems. Improvements include a new containment design that has eliminated mechanical and electrical components so that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The frequency of system inspections has increased and operations manuals have been improved. The spill containment system that will be installed at Clarington TS will be reliable and secure.

#### *Excavation of soil*

You indicate concerns regarding the excavation of soil on the proposed site and its impact on groundwater. As indicated in **Section 3.1.3** of the draft ESR, the station will be located above the level of deep wells and the aquifer. Based on the hydraulic gradient at the site, Hydro One believes the proposed station will not impact the shallow wells, deep wells and the aquifer.

#### *Springs*

You indicate that you inspected the site and revealed the presence of springs throughout the site and that Hydro One should undertake a hydrological evaluation. Thank you for the information. We would appreciate receiving the photos you have taken. We understand that they were intended to be included in an appendix of your Technical Analysis Report.

#### *Oak Ridges Moraine*

In regard to your comments about the proposed site being located on the Oak Ridges Moraine, our intent is to respect the natural environment while ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002) and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations also conditional on the need being demonstrated and all reasonable alternatives addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to the ORMCP under Section 41.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on

Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is neither development nor site alteration but is defined as an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements (ORMCP Section 41) will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to these requirements as infrastructure/utility.

## **Construction**

### *Soil stability and type of soil*

Hydro One has undertaken a comprehensive drilling investigation at 25 locations across the site. These locations were selected to represent the soil and hydrological conditions for the site as a whole and specifics associated with transmission tower locations and the transformer station. The boreholes were drilled to a depth of up to 15 metres and were used to determine the soil and hydrological conditions that are needed for station and tower design, construction and operation purposes. Results of this investigation, as well as the MOE well records, indicate that the site was overlain with dense sandy silt till ranging from 10 to over 30 metres in depth above the aquifer which supplies the majority of the nearby wells. This till retards water infiltration and is termed an aquatard. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011).



Regarding your concerns about soil stability at the proposed site, the soil strength necessary to support the transformer is 150 Megapascal (MPa). Recent geotechnical investigations have shown the soil strength to vary from 225 MPa to 525 MPa, which is well above the requirement. The depth of the containment and pad for the transformer is approximately 2.1 metres below ground surface. The soil conditions do not present new or unique structural conditions affecting the design of the Clarington TS transformer containment facilities relative to many other facilities located with the Hydro One Network. The concrete pad and the floor of the containment pit are cast together. This method of forming, combined with the relatively high level of reinforcement and concrete strength in both the pad and the containment floor, creates a reliable level of assurance in preventing cracks.

As noted in **Section 3.1.3** of the draft ESR, the surficial tills over the site are in the order of 10 to 30 metres thick as confirmed by MOE well records, geotechnical boreholes and the completed cross sections. Consequently, the installation and weight of the transformers is not a concern.

In terms of vibration, the transformer will be fully supported on a full set of springs and the lead sheet. This is similar to many of our installations. The transfer of vibration to the foundations will be minimal. As noted, the soil support quality is very good. The size of the transformer is not an issue since the entire pad area is sized to maintain acceptable pressures.

## Compensation

### *Consultation with the Municipality of Clarington*

You indicate that the Municipality of Clarington was not informed about Clarington TS during the planning of Enfield TS. Hydro One did not receive direction to develop an implementation plan for the Clarington TS until October 2011.

### *Recent real estate transactions*

You note that you feel monetary compensation should be given to local residents. Hydro One's practice is to pay compensation only where new or additional land rights are required to build its transmission projects. No additional property rights are required for Clarington TS with the exception of access rights into the site. This is consistent with the practice used by similar industries, such as natural gas pipelines and major transportation routes (e.g., highways).

### *Property values*

Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

### *Draft Environmental Study Report*

Your letter notes concerns about contradictions and errors in the draft ESR. Corrections will be made, where appropriate, in consultation with individuals or agencies that have identified concerns. Efforts are made to ensure final documentation is complete and accurate.

*Artificial Deadline*

You also note concerns about the proposed project's timelines. The Class Environmental Assessment (EA) process is legislated by the Ministry of the Environment (MOE) and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner. The Clarington TS Class EA is undertaken following the requirements set out in the Ontario Hydro (1992) Class EA for Minor Transmission Facilities, approved by the MOE under the *EA Act*.

Following the direction from Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since this time, Hydro One has conducted a Class EA which has included rigorous field studies and testing, as well as extensive consultation with the community. Hydro One's project team is confident that we have dedicated the appropriate resources, research and time to satisfy the requirements set out by the Class EA process.

### **December 14, 2012 Letter - Hydro One responses**

You note in your letter that you have not received a final ESR and you have been given a limited time frame to voice your concerns.

#### *Class Environmental Assessment – Clarington TS*

The release of the draft ESR is a step in the approved Class EA process. The process is described in **Section 1.5.1** and **Section 2** of the draft ESR and illustrated in **Figure 1-5**. Hydro One issued the draft ESR on November 15, 2012 for a 30-day public and agency review period. The draft ESR was prepared in conformance with the Ontario Hydro (1992) Class EA, which was approved under the *EA Act*.

We believe that the Class EA process has provided extensive opportunities for concerns to be expressed and feedback to be provided on the issues. Your request for a Part II Order has provided additional time to elaborate on those concerns. Opportunities will continue prior to and during construction.

#### *Consultation*

The Class EA process for the proposed Clarington TS project has included the following consultation elements:

- Initial Notification and Final Notification of the project
- Two PICs
- Community Information Meeting
- Notification and consultation via public notices, letters, emails, telephone calls and meetings
- Project website
- Dedicated project contact person
- Draft ESR Review Period

Please refer to **Section 4** of the draft ESR.

#### *Final ESR*

The reports, testing and environmental data listed in the draft ESR are considered final, and are not generally altered once the report is finalized. When the draft ESR is released for the review period, it is the version of the report where First Nations and Métis communities; federal, provincial and municipal agencies and officials; interest groups; affected property owners and the interested public review and provide comments on the undertaking. The results of the review process are documented in the final ESR.

#### *Minor Transmission Facilities*

You note that based on the knowledge acquired by residents that the scope of the proposed Clarington TS exceeds the regulations of our Class EA. This is not consistent with the approved document and extensive past practise. The proposed project, a 500/230 kV transformer station, falls within the class of project defined in the Ontario Hydro (1992) “Class EA for Minor Transmission Facilities” approved by the MOE under the *EA Act*. See **Section 1.5.1** of the draft ESR.

#### *Enfield TS*

You note that the geotechnical survey for the approved Enfield TS and Enfield TS alternative #2 is not part of this Class EA process. The information was relevant to the comparison of options in the Enfield Class EA process; however, the analysis and conclusions cannot be applied to the Clarington project. Refer to **Section 1.1** of the draft ESR.

Please note that Site 2 described in the Enfield TS final ESR is not the location for the proposed Clarington TS.

*High Water Table*

Please refer to December 5, 2012 letter response “Excavation of soil.”

The following are responses to your questions:

- 1) **“The Class Environmental Assessment does not address the serious hydrological concerns and the actual size of the project.”**

The draft ESR describes the existing hydrology and hydrogeology of the site in **Section 3.1.3**. The size of the proposed station is 280 metres x 600 metres as stated in **Section 6**.

- 2) **“This is not a minor transmission facility”**

As stated previously, the proposed project falls within the class of projects described within the approved “Class EA for Minor Transmissions Facilities”. See **Section 1.5.1** of the draft ESR.

- 3) **“The ESR is incomplete and does not contain data necessary for our analysis”**

The draft ESR provides a summary of relevant information to facilitate better understanding of the planned work associated with the station, its predicted effects and our proposed mitigation. Opportunities were provided for your Association and regulatory agencies to discuss issues, predictions, and other concerns. This is consistent with Class EA requirements and long standing Class EA practise. The Hydro One project team has made best efforts to respond to your information requests.

- 4) **“Hydro One has stalled on providing us with requested bore hole results and analysis.”**

The requested reports are prepared for station design purposes and are often not available during the EA process. Fortunately, the Final Stations Geotechnical Report was available and has been released to you. Once it is available, Hydro One will provide the Final Lines Geotechnical Report.

- 5) **“No documentation has been received from Hydro One identifying the depth to the groundwater.”**

The information pertaining to the estimated depth of groundwater is described in **Section 3.1.3** of the draft ESR.

- 6) **“No lab test results have been supplied to confirm that this type of loose water saturated soil is capable of supporting a massive structure of this size.”**

This is an uncommon request, especially during the EA process. Hydro One facilities are designed by Professional Engineers with extensive experience in these matters. Please refer to the previous response on Geotechnical Reports.

- 7) **“No documentation of bedrock has been provided even though it is reported in the ESR.”**

The draft ESR under **Section 3.1.1** states that “bedrock underlying the project area consists of Blue Mountain Formation, consisting of blue-grey non-calcareous shales (MNDM, 2012).” This information was retrieved from the Ontario Ministry of Northern Development and Mines in the Ontario Geological Survey and described the bedrock geology of the area. This bedrock is overlain by the South Slope physiographic region – a surficial deposit of varying depths. Bedrock does not emerge within the study area and was not expected by our geotechnical investigation (i.e., which only extended to 15 metres). This is further supported in **Section 3.1.3** well records, where all of the deep wells adjacent to the project area indicate a surficial overburden of 10 – 100 metres with no bedrock encountered.

**8) “No plan concerning construction data has been supplied nor any cost analysis:**

- **Footings information (size, depth)**
- **Mounting pads for transformers (size, depth)**
- **Containment system specifications (location, size, depth)”**

Environmental assessments are typically conducted at the earlier stages of engineering and consequently, do not include detailed cost information. This level of information is not a requirement of the approved Class EA. Please see the enclosed CD for the requested construction drawings for footings, mounting pads and the containment system. This data is for your information and is not a requirement of the Class EA.

**9) “Alternative site suggestions were not evaluated on a cost or savings basis”**

During the course of the Class EA process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

**10) “All of the questions and concerns raised by the people have not been addressed to their satisfaction and many have gone unanswered.”**

Hydro One continues to make best efforts to respond to inquiries in a timely manner. We will continue to respond to the best of our ability. As noted, this includes provision of information that goes beyond traditional Class EA requirements.

**Technical Analysis Report – Hydro One responses**

Below are concerns raised within your Technical Analysis Report with the corresponding Hydro One responses. We appreciate you having reviewed the draft ESR and providing comments. The following are responses to your concerns addressed in the “**Draft Environmental Study Report**”.

**1) Concerns regarding the proposed site of the station on the Oak Ridges Moraine, agricultural land, and property designations**

Please refer to the December 5, 2012 letter response “Oak Ridges Moraine.”

**2) Location of springs on property**

Please refer to the December 5, 2012 letter response “Springs.”

**3) Information regarding Enfield TS sites and removal of overburden**

Please refer to the December 5, 2012 letter response “Excavation of soil.”

**4) Soil samples**

Please refer to the December 14, 2012 letter response #4.

**5) Major recharge area**

Please refer to the December 5, 2012 letter response “Soil stability and type of soil.”

**6) Bedrock**

Please refer to the December 14, 2012 letter response #7.

**7) Overburden**

Please refer to the December 5, 2012 letter response “Excavation of soil.”

**8) Type of soil and lead sheets**

Please refer to the December 5, 2012 letter response “Stability of soil and type of soil.” The types of soil are also detailed within the Stations Final Geotechnical Report which has been provided.

With respect to your concern about lead, based on the current transformer design there will be springs and lead used between the transformer and the concrete pad. The lead sheet is a quarter of an inch thick. The sheet would be the same size as the transformer base. It is placed on the transformer pad to assist in filling any gaps between the concrete pad and the transformer base. Under normal conditions lead does not react with water. We consider that lead used in this situation is normal and expect no issues related to water.

The Clarington TS transformer containment facilities are similar to many other stations. The facilities are approved by the MOE and technology is demonstrated. The concrete pad and the floor of the

containment pit are cast together. This method of forming, combined with the relatively high level of reinforcement and concrete strength in both the pad and the containment floor, creates a reliable level of assurance in preventing cracks.

In terms of vibration, the transformer tank will be fully supported on a full set of springs and the lead sheet. This is similar to many other of our installations. The transfer of vibration to the foundations will be minimal. In addition, the soil support quality is very good. The size of the transformer is not an issue since the entire pad area is sized to maintain acceptable pressures. Please refer to the December 5, 2012 letter response “Soil stability and type of soil.”

## **9) Property designations**

Please refer to the December 5, 2012 letter response “Oak Ridges Moraine.”

## **10) Alternative sites**

Following recommendations from the MOE that came out of the public hearing process (“Report of the Solandt Commission”, 1975), Ontario Hydro received approval to expropriate this property in 1978. The short term plan was to build new 500 kV lines, and over the longer term, build a future transformer station to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that “the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.” This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirements, is located where the 500 kV lines and 230 kV lines meet and it is already owned by Hydro One.

Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Please refer to **Section 4.6.2** for the factors Hydro One considered to not further consider the alternate sites that you recommended. **Section 5.1** provides additional information on rationale of the preferred station location.

## **11) Environmental responsibility**

With more than 280 operating transformer stations in Ontario, Hydro One has a strong track record of environmental compliance and stewardship and is committed to the completion of a comprehensive environmental assessment and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed MNR protocols. Hydro One ensures that all assessments or inventories are submitted to the relevant review agencies to ensure we have included their interests and recommendations, and as well confirm we comply with all of their requirements. Depending upon the nature of the resource and the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring. More details on Hydro One’s efforts on the natural environment is located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a ‘no net loss’ objective to terrestrial and aquatic habitat and, where possible, we try to achieve a ‘net gain’. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To confirm that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

## 12) Fish in the local area

With respect to fish in the onsite streams, Hydro One supports the findings of CLOCA. In **Section 3.1.4** of the draft ESR, Hydro One recognizes 33 species of native fish and five introduced species within the Harmony Creek and Farewell Creek watersheds. The report notes that no fish were observed or caught during our investigations because of insufficient water. These findings are not used to dismiss the streams as fishery habitat but rather it is concluded that the creeks/streams are considered as fish habitat and that any works in or adjacent to the creeks will be done in discussion with CLOCA.

CLOCA has an agreement (Level 3) with the Department of Fisheries and Oceans (DFO) to review and assess projects on its behalf in respect to the *Fisheries Act*. This includes projects both within and adjacent to the on-site tributaries. Consequently, such aspects as creek crossings and other works within 30 metres of the creek will be reviewed and assessed accordingly. CLOCA will issue direction to Hydro One to ensure that all aspects of the *Fisheries Act* are addressed appropriately for this project

The following are responses to your concerns addressed in the “**Community Impact**”.

### 1) Fear and worry about water supply

In regard to your comments about the hydrological condition of the site, the station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability (CLOCA, 2011) to contamination from human and natural impact. The station does not require a water supply and will not withdraw water from local supplies. Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act* (EPA). The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the



associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

## 2) Unstable ground

Please refer to the December 5, 2012 letter response “Soil stability and type of soil.”

## 3) High strike event zone

An array of lightning masts have been designed and strategically located to protect equipment, buswork and buildings from the effects of direct lightning strikes. In addition, the equipment is selected with insulation ratings suitable to withstand lightning impulses. This calculation method is the same that is used successfully on other Hydro One 500 kV and 230 kV stations.

All steel in the switchyard is connected to a station ground grid made up of bare conductors arranged in a grid pattern and buried in soil below the grade. Any build up of charge due to electromagnetic induction is drained into the station ground grid where it is dissipated.

## 4) Spills

Please refer to the December 5, 2012 letter response “Oil spills.”

## 5) Property value

Please refer to the December 5, 2012 letter response “Property values.”

## 6) Compensation

Please refer to the December 5, 2012 letter response “Recent real estate transactions.”

The following are responses to your concerns addressed in the “**Financial Waste**”.

### **Urgency to build station and where will the power be to operate station**

Please refer to the second paragraph in the cover letter.

### **Alternative sites, specifically Pickering NGS**

Please refer to the Technical Analysis Report – Draft Environmental Study Report response to #10.

Please refer to **Section 4.6.2** for reasoning for why Pickering NGS is not a viable site.

### **Overloads and short circuit levels at Cherrywood TS**

#### *Overloading at Cherrywood TS*

Currently the Cherrywood TS autotransformers carry power from the 500 kV system to the 230 kV system in East Greater Toronto Area. The retirement of Pickering NGS means that flow from the 500 kV system has to increase to meet the load demand. This increased flow results in overloading of the Cherrywood TS transformers.

### *Short Circuit at Cherrywood TS*

In a power system, similar to the electrical panel in a home, circuit breakers are used to open or interrupt a circuit when the circuit is shorted to ground, also referred to as a short circuit. Short circuit results in very high current flow, known as fault current. The circuit breaker protects the equipment and ensures that no damages are sustained in the event of short circuit or fault current.

The circuit breakers are designed to safely interrupt a certain level of fault current known as the interrupting capability. For example, most of the circuit breakers in the electrical panel in a home are rated at 15 amperes where stoves and dryers are rated at 30 or 40 amperes. The circuit breakers on the power system are rated many times higher than that, but they too have a maximum interrupting capability.

At a Transmission Station (TS) the source of short circuit current or fault current is from the circuits and transformers connected to the TS. Over time this short circuit current increases due to a number of factors such as, adding more circuits to the TS for system reinforcement, or the addition of more transformers or generators to meet an increased load demand. The power system is designed to ensure that short circuit current at all transformer stations does not exceed the interrupting capability of its circuit breakers. For example, Hydro One would restrict the number of high voltage transmission lines or transformers, such as at Cherrywood TS, to ensure that the short circuit current does not exceed the design fault current interrupting capability of the circuit breakers.

As indicated in **Section 4.6.2** of the draft ESR, Cherrywood TS is not a viable site for the proposed TS due to technical, economic and environmental impact reasons.

### **Power Supply to Cherrywood TS following Pickering NGS closure**

Cherrywood TS becomes more critical after the retirement of Pickering NGS. Currently the power in the East Greater Toronto Area is supplied by two main sources: from the 500 kV connected generation, such as Darlington NGS via the Cherrywood TS 500/230 kV autotransformers, and the Pickering NGS. In addition, there is flow coming in on the 230 kV circuits from Eastern Ontario.

Once Pickering NGS retires, increased power flow will come through the Cherrywood TS autotransformers. This increased powerflow will result in overloading the Cherrywood TS autotransformers. Clarington TS autotransformers will share the East Greater Toronto Area load and, as a result, reduce the loading on Cherrywood TS.



Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, On  
M4V 1P5

Re: Draft Environmental Study Report Clarington Transformer Station

Dear Sir or Madam,

I Would like to request a Part 2 order re: the Clarington Transformer Station.

Many concerns were raised at meetings with Hydro earlier this year with regard to probable ecological and environmental damages likely to occur as a result of this project. To my knowledge none of these concerns have been met or even considered by Hydro; certainly I have received no communication from Hydro despite the fact that my home and property abut directly to this project.

Perhaps a timeline on my personal contact with Hydro would be in order.

1974/75 Under threat of expropriation by Hydro as part of their plan to build a huge transformer station at this same site I was advised not to go ahead with my plans to build my home.

1976 The Ontario Government of the day forced Hydro to cancel the project due to a lack of need, so in spite of the cost of a two year delay I was able to go ahead with the building of my home.


2006 Hydro announced the Enfield Transformer station project. After many meetings over the next year or so Hydro agreed to a number of changes which satisfied some of the concerns of residents.

2010 As a result of reduced concerns of the impact of the Enfield transformer station I felt safe in planning and starting an expensive renovation of my home

2012 As a widower in his eighties with no gold plated Hydro pension to look forward to I was finally almost ready to list my house(my pension plan) when Hydro dropped the other shoe by cancelling Enfield, and proposing the current megaproject, hardly a major selling point to any prospective buyer

Sincerely, 1976 once bitten, 2006 twice bitten, 2012 thrice bitten





Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON  
M4V 1P5

**Re: Draft Environmental Study Report Clarington Transformer Station**

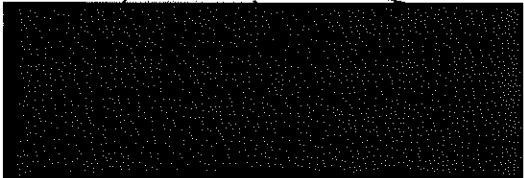
Dear Sir or Madam,

We have lived in our home since <sup>2001</sup>~~2011~~. At that time there was an insufficient water supply 1/4 gallon per minute. To correct this problem we had to drill a new well at a cost of over \$15,000. In addition we have spent well over \$250,000 on our home and property. We live directly across from the proposed Mega project. If it goes through and my property value is affected who would pick up the short fall? If my water supply is affected who would pay for a new well? In addition the value of my home is also earmarked for my retirement money.

I am 71 years of age and my wife at age 66 has dementia and is in a long term care facility at \$2200.00 per month. If my property is devalued because of this proposed project my income would be greatly affected.

Concession 7 is a very busy road. The additional traffic of heavy equipment trucks would make getting out of our driveway almost impossible as we are at the top of a very steep hill as well as the danger of someone getting seriously injured or killed.

Thank you for reading about my concerns.



c.c. Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, ON  
M5G 2P5

Yu-Sang Ong,  
ENVIRONMENTAL PLANNER.

This whole project at Hydro is so ridiculous and beyond understanding, I just don't get it! They have 2 or 3 other sites that would work, but no, they want to put it in family's backyards. How would you like that? It's easy to turn your back when it's not happening to you isn't it! Well someone better stop and take notice of what's going on here and help us, or you're in for one hell of a fight. We will not back down and we will do what ever it takes to stop this site.

People love to waste money don't they? What about the Mississauga plant, they shut it down and wasted 190 million plus. Who pays for that? WE DO! Who is going to buy our houses if there is a chemical accident, and don't tell me it can't happen, IT CAN HAPPEN! Is Hydro going to buy all our dead properties and waste some more money? This is sensitive ground; all our water veins are there.

How would you like your property values to drop?. You just turn your backs. Where are people's consciences today. Please don't be one of them and help us. You will please God.

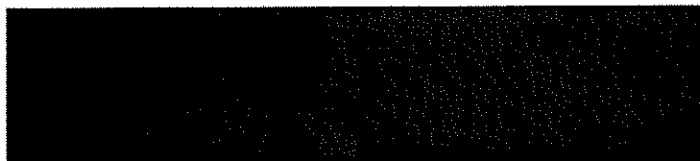
How would you like to wonder and worry about your children's health, being bombarded by towers, and now a huge one hundred acre transformer? And that's just phase one. ITS TOO MUCH ALL AROUND US! What about the wild life? I thought there were laws to protect endangered species, or do people just close there eyes and do what they want, and say we didn't know they were back there. Someone better open his or her eyes, or we will go to the environmentalist.

We are meeting with the group that shut down the Oakville plant, We WILL stay in the press, We WILL stay on top of parliament. We are seeing top lawyers in Toronto who specializes in this field.

We have a large group ready to fight. There are 260 people who strongly appose this site.

Come on people, the Oak Ridge Moraine is supposed to be protected! And so are we! Please step up and help us!

Thank you.





Re: Clarington Transformer Station

Yu - Sang Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay St. South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario  
M5G 2P5

Attention Yu-Sang Ong:

I am writing to you today as a concerned resident, a concerned parent, and a concerned teacher. I am concerned for the safety of the environment, the future of my family, and the education of the youth that I teach. My concerns stem from the proposed building of the Clarington Transformer Station.

As a local resident of the area for 14 years, we value the rural living for which we bought our property and home. We depend on the quality of the water which we draw from our well for our own use and the animals on our small hobby farm. We are very aware of the impending threats to the groundwater system should the transformer station be built. We know that both the risk of oil spills and the compaction or damage to the layers of the aquifer from drilling and construction are realities that pose to threaten our home's water source. No one from Hydro One has yet to consider our property and its well in its preliminary plans for this site.

As a parent, I am also anxious over the thought that our family's future living on this property could be in jeopardy. We purchased our home with the understanding that the community's agriculture would continue to thrive and that its greenspaces would be preserved for all of the purposes that we know our Ministry of the Environment values as well. Instead we see the impending Highway 407 scarring the land, closing working farms, and evicting homeowners. Now we see this proposed Transformer Station further

threatening the health and well being of our community, all for the "possibility" of inadequate energy supply "should" the Pickering Nuclear Station be shut down. Surely the alternative Pickering "backyard" that has been proposed offers a more appropriate location for Hydro One to build on, than in "our backyard".

Finally, and most importantly, as an educator, I am completely dismayed by the complete contradiction between learning and reality that my students are witnessing over this issue. Our school is part of the extended community affected by this Transformer Station. In the grade 7 Geography curriculum, my students learn about environmental issues that demonstrate differences of opinion. In their text book the protection of the Oak Ridges Moraine is highlighted for the necessity to protect the pristine groundwater and significant land for which this corridor known. Students learn about the limitations for land use on the Moraine. They can see the signs posted when driving on our local routes. Everyday in our classrooms teachers strive to make our students aware of where their learning is coming from so they can make connections between the textbook and their world. As their teacher, how can I explain their government's decision to protect valuable land and water on one hand, then give permission to corporations on the other hand to use the land for reasons against what the Oak Ridges Moraine Conservation Plan promises: *"long-term protection and management of this vital natural resource."*? It is obvious that our government, Hydro One, and the Conservation Plan are not sharing the same vision for the *"unique concentration of environmental, geological and hydrological features"* of the Moraine. It is obvious to my students as well.

I like to believe that decisions of this magnitude are made in good faith of all stakeholders involved. However, in the decision to build the Clarington Transformer Station, it is very clear to all that due diligence has not been done to consider the impact it will have on its local residents, the environment, the Oak Ridges Moraine, and on the reputation of the governing bodies that established the Oak Ridges Protection Act in the first place (2001). A Part 2 Evaluation is asked for. I look forward to a respectable resolution to this matter.

Sincerely Yours,



Yu-Sang Ong,  
Environmental Planner  
Hydro One Networks Inc.

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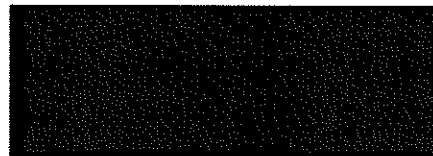
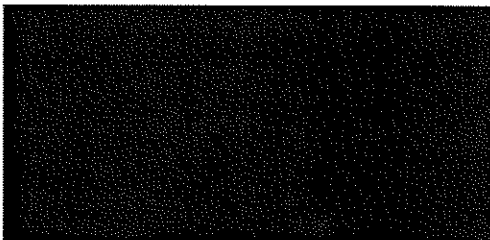
### ENOUGH IS ENOUGH

How much more money do you need to waste? How many more communities do need to destroy? How much more of the Moraine land do you need to eliminate?

The evidence is clear on how many mistakes were made on other sites( Westlyville Plant / Oakville Plant ) to mention just a few. These mistakes cost the taxpayers Millions of dollars. After putting a lot of thought into these mistakes, I got to thinking, how could professional people make such large & costly mistakes? Maybe it wasn't a mistake? After all, it employed thousands of Hydro personnel. Isn't that what it's all about with Hydro One;? spend our money to keep themselves employed.

Hydro One has several other sites, which could be used to construct their new Transformer Station, and not affect any residential area. So, why not locate it in Whitby or Cherrywood? Because there would be less work & man-hours involved in these sites. Let me make it perfectly clear, the Clarington site would employ more Hydro One personnel and for a longer period of time than the other sites.

Someone needs to stop Hydro One from wasting our money! And that's what the Clarington community is going to do!





December 10, 2012.

Ministry of Environment OR Hydro One NETWORKS INC.  
135 St. Clair Avenue West, 12<sup>th</sup> Floor.  
Toronto Ontario  
M4V 1P5.

To Whom It May Concern,

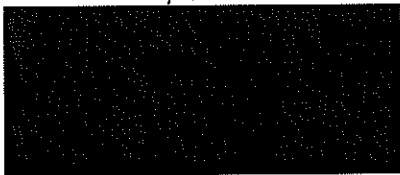
We are writing this letter because we have recently become aware that Hydro One is planning to build a huge transformer facility in our community on the Oak Ridges Moraine, near our house. We have learned in school that the Oak Ridges Moraine is an important environmental property and that the government passed laws to protect it. We also know that this is an important area that supplies the water for our wells.

My brother and I do not understand why Hydro One would build this type of facility knowing that it may damage an extremely important environment and our water supply. It is even possible that we may not have water to drink and take a shower with when they finish building it.

We also learned about the disaster at Cherrywood where over 169,000 litres of mineral oil escaped and contaminated the area. How do we know that the same thing won't happen with this facility? What if our water is poisoned?

We hope you will reconsider your decision and use a place that already exists so that the Oak Ridges Moraine and our water will not be destroyed.

Sincerely,



Yue-San Ong, Environmental Planner,  
Hydro One Networks Inc.,  
483 Bay Street, South Tower, 6th Floor,  
Toronto, Ontario  
M5G 2P5

Re: Draft Environmental Study Report Clarington Transformer Station.

Dear Yue-San Ong,

I am requesting a Part II order to address the concerns I have related to the proposed Clarington Transformer Station.

There is a 30ft deep dug well, built in the late 1940's, at the south west corner of Longmaid Rd. and Concession Rd. #7 that supplies water to my barn for my horses. Hydro One has not located this well on its map in the E.A. draft. This well is likely replenished by Farewell Creek that flows under Concession Rd. #7 at this point. I fear that the extensive excavation planned for this project will interfere with the water veins that supply my well. I also fear that there will be a toxic spill, as occurred at Cherrywood, that will contaminate the water and poison my horses.

Also, I dread the noise produced by backhoes, excavators, bulldozers and trucks from 7:00 a.m. to 7:00 p.m. during the two to three year construction period.

(2)

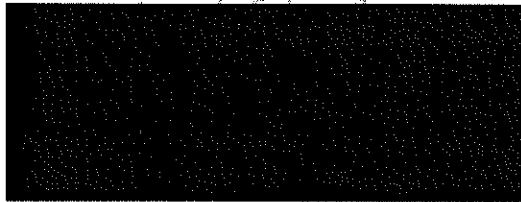
Next, I am afraid for the safety of my three granddaughters who are learning to ride. Horses panic and flee from loud noises made by heavy machinery.

Because of a predominant North West Wind in this area dust will be a constant health hazard to my wife and to me.

Finally, my wife and I are in our late seventies. If we have to sell our home and move into a long term care facility, there would be difficulty marketing our property during the lengthy construction period of the proposed transformer project and probably thereafter.

I look forward to a Part II "bump up" so that these issues will be resolved.

Sincerely yours



Copy to:  
Ministry of the Environment  
135 St. Clair Ave. West 12th floor  
Toronto, Ontario  
M4W 1R5

December 10, 2012

To Whom It May Concern,

I am writing this letter with regards to the Hydro One Transformer Station that is to be built within close proximity to my property. The purpose of this letter is to express my extreme concern about the health effects as well as the disruption in usable well drinking water and my property value.

My most serious concern would be my health as well as the health of my immediate neighbours while dealing with not only the construction of the station, but after it is completed and running at full capacity and how the stray voltage and resonance may affect my well being. This is a massive undertaking that would not be finished over night and being a shift worker and also living only a few hundred feet from the edge of the proposed site, my day to day life would be disrupted immensely. I recently moved to my property in Hampton after living in Bowmanville for a little over a year. The reason for my move was the constant disruption and annoyance of living in a subdivision with construction happening so close by. The dust and debris that existed in the air due to the work being done nearby was very agitating to my breathing. After moving to a more rural setting I have noticed immense health benefits and have never felt better. Being an asthmatic, this is hugely important to me.

I work closely with all types of power production (nuclear, wind, hydro dams, etc.) and I have heard and read my fair share on the effects of 'stray voltage' and also how resonance of the voltage passing through hydro lines can affect ones health. The fact that Hydro One is willing to expose the residents nearby to this is quite disheartening to me. From what I have learned, the proposed site could theoretically be built quite farther North where it would not be an issue to the local community. What I would like to know, is why this is not the case? Why put the local residents through such trouble; financial, mental and physical when there is what seems to be a simple solution?

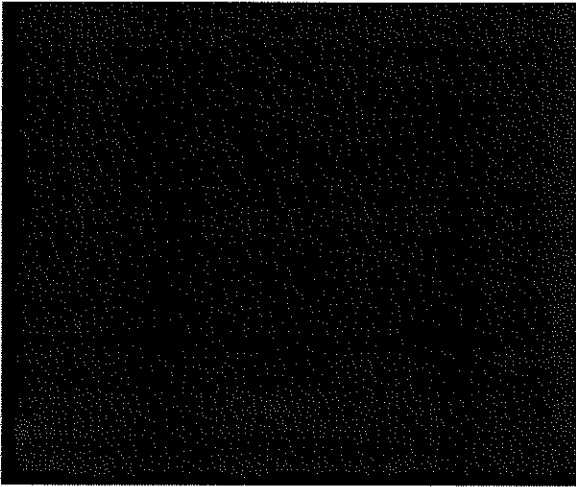
At my property I use a drilled well along with a septic system. My well is relatively shallow being in the depression of the rolling topography. The drilling, digging and pouring of the massive concrete foundation would surely have ill effects on my drinking water. Financially, I cannot afford to install top of the line water filtration units and softeners at my home and the clean water produced at my well is what I depend on day to day. To obstruct the flow of usable drinking water would have devastating financial effects.

My final point is the severe reduction in property value that is inevitable once this station has been constructed. I live in a much sought after rural setting and I depend on the value of my property to remain above the purchase price to ensure peace of mind and a positive future if I ever decided to sell my home and change locations. If the value of

my land were to drop below what it is worth now, and I came to a difficult financial crossroads where I was forced to sell, the results would absolutely cripple my savings and the planned future for me and my family.

I hope this has shed some light on my personal situation regarding the Hydro One Transformer Station and made even a slight impact on the decision to build at that specific location. I sincerely hope that consideration is taking into account for the hard working people in the surrounding area and their families. To build this does not benefit anyone and there is always a peaceful and agreeable solution to every situation and I hope we are able to meet at such circumstances.

Regards,



December 10, 2012

Dear Sir or Madam,

I am writing to inform you of the impact this project has on our family's lives. We purchased this home three years ago, mainly because we loved the property, including the beautiful views and the potential the home had to increase in value with some work. So that is just what we did. We have spent many thousands of dollars doing extensive renovations improving this home and property, with the assumption that it will be worth a lot more in the future. That equity would have put our two boys through school, and help with many other plans we had.

We were told by the Clarington planning department before we purchased this home that there would be no future development behind us, as it was protected land- The Oak Ridges Moraine. We feel that we are "held hostage" to our home because we cannot sell now with this mega station planned. If this project moves forward, we know that nobody will want to purchase a home that is surrounding something so controversial, and that has no business in a residential area. Nor would we want to be so close to the potential health and safety hazard.

Furthermore, we are concerned about noise during and after construction, our well water supply/contamination, and the safety issues of having such a large electrical "Playground" in our children's backyard.

In this day and age I just can't wrap my head around the fact that such a large, well known company (Hydro One), with all of the resources you have, would have such disregard for the environment and the residents surrounding the area by choosing to build on such special land, when we all know that you have other options.

We are requesting a Part 2 Evaluation be done to help you understand that there are better options, and that there is a reason that this land should be protected.

We look forward to hearing your response and solution.

Sincerely,



Re: Proposed Clarington Transformer Station

To Whom It May Concern,

My name is [REDACTED] and I am a property owner who will be adversely affected by the Clarington Transformer Station.

Prior to moving to Clarington, I built a custom home on 15 acres on a quiet street in Brooklyn. We were expropriated to make room for the proposed 407. After a long search for a similar property in the surrounding area we purchased [REDACTED] in Hampton.

Having just experienced expropriation after a new build, we did our due diligence with the Municipality of Clarington and inquired as to whether or not there were any land adjustments/developments we should be aware of.

We were advised by the Clarington Planning department that our property was in the Greenbelt and adjacent to the moraine and as such, nothing can be constructed on those lands.

Confident in our findings, we purchased the property and commenced construction of a 3000 square foot home, including an attached 3 car garage and constructed an independent 4 car garage. It was built to enjoy the view, enjoy the peace and to maximize potential resale value. This property represents a major piece of our retirement plans.

To our dismay and shock, we received a registered letter from Hydro One, informing us of the proposed Hydro One transformer station which is located pretty much in our backyard. The construction of the station would result in,

- Complete loss of view
- Dramatic reduction in resale value of the property
- Years of construction noise, filth and activity
- Arguable adverse health affects

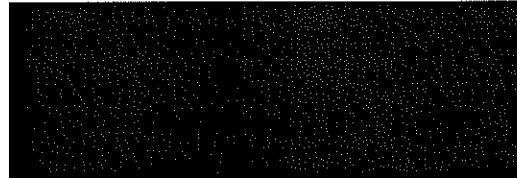
I have two outstanding questions.

1. What does Hydro One plan on doing to rectify the loss of resale value of my home?
2. When did Hydro One enter into discussions with the Municipality of Clarington regarding the transformer station?

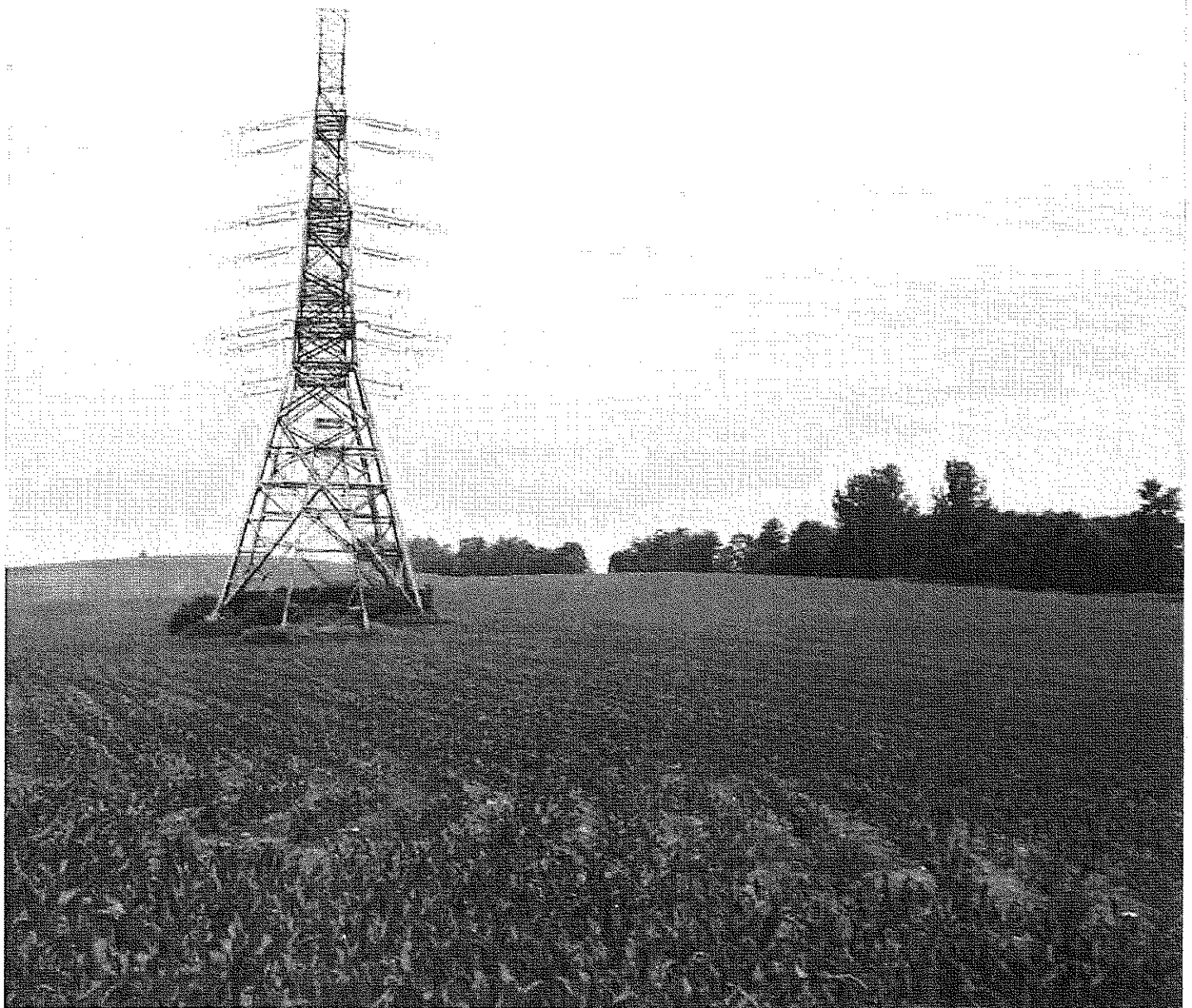
This is simply not acceptable. I am hard pressed to believe this is how Hydro One treats its constituents. This stress has affected my health and I am experiencing stress related health problems. I attribute this to the transformer station.

I can be reached by mail, or by telephone at [REDACTED] by email at [REDACTED] and would be pleased to discuss this further.

Regards,







Dec. 10/12

TO - Ministry of the Environment  
135 St. Claire Ave. St. - 12th Floor  
Toronto, Ont. M4V 1P5

### Stop the Clairmont Transformer Station

This is my plea, along with the residents of our community. I fail to understand how anyone, who supposedly strives to protect our delicate environment, could even think of using the heart of the Oak Ridges Moraine for such a mega project.

Hydro One seems to have one objective and that is to push this through so fast the residents won't realize what hit them. At the numerous meetings I have attended, Hydro One people have been evasive, and tried to mask everything with misleading and incorrect data. Our committee has proven this with documentation and photos only to be brushed aside.

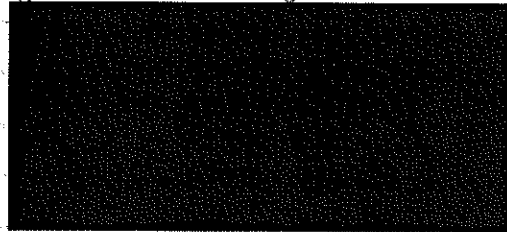
History has proven that accidents do happen in Hydro's backyard. This happens to be my backyard as well and I don't like it one bit. When one of these accidents occurs the headwaters located at this site will be affected with serious consequences for many miles. These waters feed all our wells. Hydro One says if that should happen they will drill us new wells. They failed to tell us how that, <sup>would</sup> be acceptable when the water would then be contaminated.

It has also been proven by our committee members that because the type of soil at this site is

so sandy, porous and saturated with water, installing mega transformers would only act to compress this type of ground, further affecting and shutting off the flow of water not only to our wells but the other waterways that stem from the site. Documentation can also be supplied for this information.

I could go on and on with my concerns regarding this intrusive and unnecessary project. The main purpose of this letter is to plead with the Ministry of the Environment to stop this work now and bump up the Environmental Assessment to a Part II on the very sensitive area of the Moraine. Not only will we be preserving an area for the endangered species of plants and animals that have been found but protecting the quality of life for all residents in the community.

Yours truly



COPY TO - Yu-San Ong, Environmental Planner  
Hydro-One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, Ont. M5G 2P5

Clearington Transformer Station

Dec 10 2012

To Ministry of the Environment

135 St. Clair Avenue West, 12<sup>th</sup> Floor

Toronto, ON M4V 1P5

cc To Furber Eng. Environmental Planner

Hydro One Networks Inc

483 Bay St. South Tower, 6<sup>th</sup> Floor

Toronto, ON M5G 2P5

To Whom it May Concern:

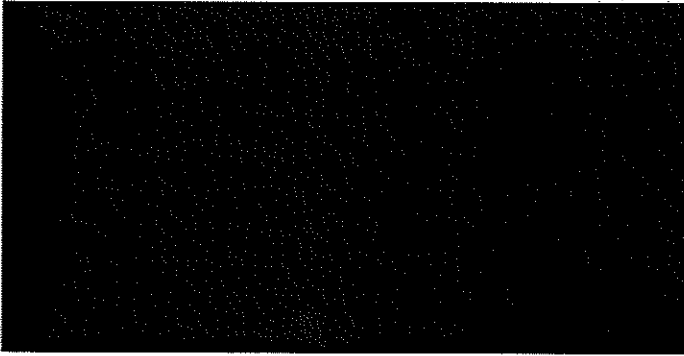
I have attended all meetings and P.I.C. which is serviced by trained Hydro One personnel. Trained in confusing information to our pertinent questions. The process for this E.A. is flawed and due to the speed Hydro is trying to achieve on this project is sad. The Oak Ridges is a very important land mass, for thousands of people. They are proceeding under a minor E.P. and furnishing us, the involved people with little, and misleading data. If this is allowed to go ahead my Quality of Life will be affected drastically. I could lose my source of water and I will certainly lose value on my property.

I am requesting the Ministry to atleast bump this E.A. up to a part II. The site location, 100 acres with 5 school bus size transformers weigh 100 tons+. This location is to ~~environmentally~~ environmentally sensitive to the whole of ~~land~~. This project could theoretically pollute the whole moraine affecting thousands of people.

1 over 1

By Bumping up to Part II would force Hydro One to exercise due diligence and caution, and allow them to supply the people with honest and proper data to allow a decision to be made that is accurate.

Thank you



December 10, 2012

Ministry of the Environment  
135 St. Clair Ave. West  
Toronto, Ontario  
M4V 1P5

To Whom It May Concern:

I am writing to address the concerns I have with the decision by Hydro One to proceed with the construction of the Clarington Transformer Station (CTS) on the Oak Ridges Moraine. I have been following the development of this project and attended local information meetings to try to understand the position Hydro One has adopted. After reviewing the facts of the case, I am left dumbfounded that any government-regulated business would even consider proceeding with this project.

There are several concerns I would like to address in the following paragraphs:

1. The Oak Ridges Moraine (ORM) is a government-designated environmentally-sensitive area that has been recognized by esteemed organizations including the David Suzuki Foundation as an extremely valuable and significant contributor to the underground aquifer and water recharge area for a large population in the surrounding region. There are several active springs and two significant creeks that provide water to the Harmony and Farewell Creeks that empty into Lake Ontario. In addition, the groundwater is mere inches below the surface. Hydro One has indicated it will need to bulldoze the top 21 ft to level the site for construction. This appears to be impossible given the presence of groundwater so close to the surface. Placing the CTS on this pristine and vital area of land will undoubtedly destroy the water source for many thousands of Canadian citizens in addition to damaging an environmentally sensitive area. **Why is Hydro One NOT following their stated mandate to support and protect the environment?**
2. Thousands of local citizens rely on this aquifer for their clean well water. This is their only source of water for their living needs. Placement of the CTS will irreparably damage that water source and unnecessarily place all those residents at risk for exposure to contaminated water and will be left seeking another source for their living needs. Hydro One appears to have turned a blind eye to this concern and states it will not happen. History indicates it will. **What plans does Hydro One have for the community that loses their safe drinking water?**
3. An incomplete copy of the Environmental Study Report (ESR) has been circulated by Hydro One that does not contain all the factual information about the proposed location. In addition, Hydro One has given citizens a 30 day window to respond to this incomplete document! Even to the untrained eye, this appear ludicrous. It does make

one extremely suspicious of Hydro One's motives. **When will Hydro One release the completed ESR and why wouldn't citizens then have a 30 day window to contest the contents?**

4. Hydro One appears desperate to get a shovel in the ground by March 2013. This date was initially presented to the community because it was reported that the Pickering Nuclear Station was shutting down as early as 2015. It has now become common knowledge that the date for closure has been pushed back to 2020 AT THE EARLIEST! **What is the urgency to push this project forward?**
5. The community at large cannot understand why Hydro One doesn't address its electrical needs through alterations to existing sites. The Cherrywood site could accommodate its needs with some changes that would avoid any negative consequences to the environmentally sensitive Oak Ridges Moraine. Consideration might also be given to the Pickering Nuclear Station site that is owned by Hydro One and will be mothballed without any future use. Both of these sites present a better option as they use existing sites and do not require new construction. **Why does Hydro One refuse to consider these alternatives?**
6. The projected cost for this mega-project is between 270 and 300 million dollars of taxpayers' money. There have been ongoing losses from the cancellation of two gas-burning plants in Mississauga. **Hydro One should not enter into another contentious project that is unnecessary and could result in another black eye for the utility and a greater cost burden to the taxpayers.**
7. During community meetings the issue was raised concerning the change in valuation of properties located close to the CTS site. The real estate representative had the audacity to address the issue stating there would be absolutely no change in property values with this 100 acre transformer station in their backyard. I found the comments insulting to everyone's intelligence. **What is Hydro One prepared to do about declining property values due to the presence of the CTS?**
8. During the community information meetings, it was stated that one reason Hydro One wants to use this site is because they already own the land. I find that argument rather shallow and without merit as it ignores the damage it will inflict on the environment. Owning the land should never be a criteria for constructing a poorly planned and environmentally disastrous and unnecessary station. **Why doesn't Hydro One follow its stated mandate and protect the environmentally-sensitive land it owns and prevent anyone from developing it?**
9. An EA Assessment conducted for the 407 confirmed there are several rare species of plant life growing in the Farewell Creek area. Once the information was presented to the 407 design team, they removed this site from consideration. **Why does Hydro One fail to reach the same conclusion?**

10. **Hydro One has reported there are no fish in streams located on this property. CLOCA and the Municipality of Clarington report that speckled trout, brown trout, rainbow trout, and chub are present in these streams. The Municipality of Clarington just spent \$59,600.00 to build a fish ladder for a stream in this area! Why does Hydro One not support these findings in their report and why do they disagree with the C.L.O.C.A. and Municipal findings?**

10. The Cherrywood Transformer Station has experienced a major spill of 160,000 litres of contaminated toxic mineral oil. Although Hydro One has assured the citizens that their containment system would never fail, it has already happened at least once. No containment system can guarantee there won't be another toxic spill into the groundwater causing a major environmental disaster. **Why is Hydro One failing to address this real and significant concern and instead dismissing our concerns as if it could never happen?**

11. The site has recently been evaluated for its ability to support such a mega-project. There will be five transformers on a 100 acre concrete pad, each transformer weighing in excess of 100 tons. Engineers on site doing the analysis communicated to the local residents that there isn't any bedrock to support the 40 ft deep, 6 ft diameter footings that need to be inserted into the ground. Instead, all that was found was water and shifting sand indicating a significant underground aquifer. The engineers indicated that the designated site CANNOT support the project. This information has not appeared in the yet-to-be-completed ESR. **Why does Hydro One ignore the information provided by the drilling analysis that confirms this site is unacceptable for the CTS? Why is this information not included in the ESR?**

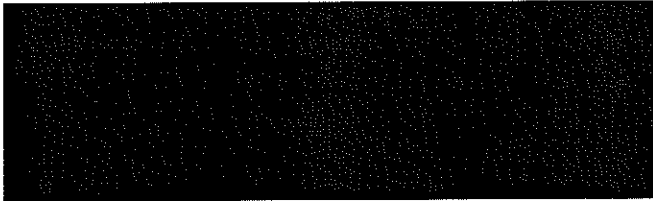
I find it incredulous that Hydro One is forging ahead with this project in spite of very convincing arguments against it. They have ignored the issues of well water contamination and land valuation as if they don't exist. They have brashly forged ahead with a project that will destroy a very important and environmentally sensitive area of the Oak Ridges Moraine THAT THE GOVERNMENT HAS DEEMED TO BE VITAL AND DESIGNATED PROTECTED LAND. They are planning to develop a habitat that numerous endangered species call home. Hydro One has ignored its own mandate to be an environmentally-conscious partner with the citizens of Canada in protecting important areas of Canada for present and future generations. Hydro One has short-circuited their own environmental assessment process by failing to provide Canadian citizens with the final ESR while at the same time limiting their opportunity to respond within a 30 day window. There is information that has been communicated to local citizens from the engineering crew on site that is sufficient to stop the project but is not found in the yet-to-be-completed ESR.



The decision by Hydro One to continue with this project reflects a near-sighted and bully mentality while ignoring all the facts that make this project a non-starter. One only needs to look at the Environmental Assessment carried out by the 407 highway extension to realize this is a site unsuitable for development. The only criteria Hydro One seems to be proceeding on is that they own the land and they need to find work for their many employees. Logic dictates that this project be terminated.

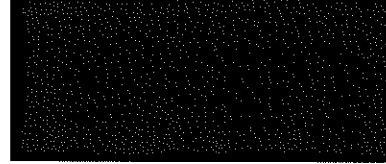
I am anxious to hear some logical responses to my real concerns and not simply a quoting of the statutes that provide Hydro One with the loopholes to wriggle through. Show some leadership and common sense! Look at the big picture and realize that nothing makes sense about this project from the need, timeline, environmental damage and protection and safety of the citizens of Canada, those same citizens that see their tax money going to fund Hydro One.

Respectfully,



cc: Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, Ontario  
M5G 2P5

December 10, 2012



Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay St. South Tower, 6<sup>th</sup> Floor  
Toronto, On  
M5G 2P5

Dear Sir,

We are writing this letter regarding the possible construction of the Clarington Transformer Station in Clarington, Ontario.

We are the residents of the area in which a new Mega Transformer Station is currently planned to be built. This is a deeply frightening project for us for the following reasons:

- This area is agricultural land located on the very sensitive and protected Oak Ridges Moraine, which supplies clean water to creeks, streams and lakes in Southern Ontario.
- The underground water flowing from the Oak Ridges Moraine supplies clean drinking water to thousands of wells, including ours, which are absolutely crucial for our daily living.
- This proposed huge project will also affect the sandy soil in its direct vicinity and even further. The weight of the transformers will compress the ground under it negatively impacting the flow of underground water or even stopping its flow completely. This will directly affect us, the residents, whose quality of life depends on pure water supplies from the Moraine.
- Any contamination of the soil and underground water during the long process of construction and later during the functioning of the station will create a great

danger to our water supply and the whole environment. There is also a possibility of accidental spillage or explosion of dangerous and volatile substances used by Hydro. This has occurred in the past at different sites of similar projects.

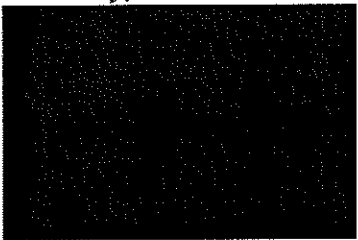
- Our area is rural with a very low noise level. The construction of this big project will take at least three years (as indicated by Hydro representatives at our meetings). The noise of equipment, the dust, the increased traffic during the construction is our huge concern. This will destroy the quality of life our family (our kids and grandchildren) currently enjoys and which we want to protect.
- One of our concerns is also the reduced financial value of our property the projected site of the Mega Transformer Station will cause. My husband and I are both retired and our property represents our financial security for the future. Who is going to compensate us for the loss of value of our property?

Those are just a few points indicating our concerns regarding the possible location of the Clarington Transformer Station near us, on the protected Oak Ridges Moraine. But this project will affect not only us, the residents living near the Moraine, but all Canadians in Southern Ontario and beyond.

The Oak Ridges Moraine is the source of water and fresh air for thousands of people, as it absorbs carbon dioxide produced by ever increasing industry and vehicles. The Moraine is our protection and it supplies two most important life supporting factors: oxygen and water. Without those two ingredients life cannot exist.

Therefore we are asking for reconsideration of the proposed site for the Clarington Transformer Station and finding a better location for this project; a location with a lesser negative impact on the environment and people living near the site.

Sincerely,



December 10, 2012

Ministry of the Environment  
135 St. Clair Avenue West, 12<sup>th</sup> Floor  
Toronto Ontario  
M4V 1P5

## **Re: Draft Environmental Study Report Clarington Transformer Station**

Dear Sir/Madam:

I am writing in response to the Draft ESR submitted by Ontario Hydro for public review. **I have a number of concerns with this report and am asking the Ministry of Environment to upgrade the Environmental Assessment to a full and complete Environmental Assessment Part Two to address these concerns.**

1. How can we possibly comment on a "draft report" that is not in its final form and is missing valuable information? Why are the citizens given a 30 day opportunity to comment on a draft report that is incomplete? Is this a fair and legal process authorized by the Ministry of Environment?
2. The Oak Ridges Moraine is government protected property for numerous reasons. The proposed location for the transformer station is on a major recharge area and these are the headwaters for the Harmony and Farewell creeks. Our understanding is the Class Environmental Assessment conducted by Hydro One does not include comprehensive hydrological testing. We are seriously concerned that our only source of water will be severely impacted, eliminated and/or contaminated by this construction. Given the location of the underground water table that supplies thousands of residents with their natural water supply, why isn't Hydro One required to complete a full and complete Environmental Assessment Part Two?
3. We fear there will be a toxic spill similar to the Cherrywood incident where 160,000 litres of toxic mineral oil spilled. Although Hydro One assures us that this will not occur given their containment system, no containment system can be guaranteed not to fail. The fact remains that it has happened in the past and will, no doubt, happen again. What do I tell our children who rely on this water?
4. There are other sites that have not been given serious consideration including Cherrywood and the Pickering site when it is shutdown. It appears Hydro One is intent on using the land they own on the Oak Ridges Moraine in spite of the inevitable destruction of government protected

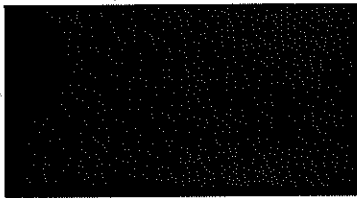
property. This will not only be an environmental disaster but a huge financial waste when existing facilities could be used.

5. I do not understand why there is such an urgent timeline to begin this project by March 2013 knowing there are legitimate concerns expressed by the citizens and critical information missing from the draft ESR. We have been advised by Hydro One that this timeline is based on the shutdown of the Pickering plant in 2015. It is common knowledge that this date has been postponed and the earliest possible date for shutdown will not be until 2020. Given the critical nature of this decision, if Hydro One is true to its mandate of being committed to its environmental performance as stated by its CEO, Formosa, why won't they perform due diligence and conduct a full and complete Environmental Assessment including comprehensive hydrological testing?

At the last information meeting held by Hydro One that I attended, the manager of this project closed the meeting by telling us to let them know what it would take to "make us feel comfortable" to have this mega transformer facility built on the Oak Ridges Moraine and they will work with us. I found this comment not only insulting to our intelligence but idiotic to think that we could possibly approve of the destruction of the Oak Ridges Moraine and the inevitable contamination of our precious water supply.

I look forward to your response to the concerns addressed in this letter.

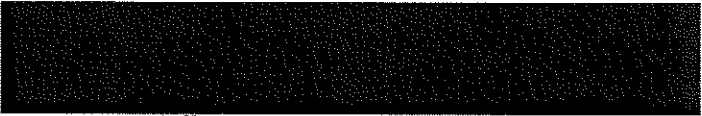
Sincerely,



Cc Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario  
M5G 2P5

Dec 09 2012

To whom it may concern:

My name is 

I'm a father of 3 children and we bought our home 16 years ago, we move out here for a slower, more quiet lifestyle.

Since we heard about the ~~transfer~~ station that Hydro one wants to build and especially the location of it is near mind blowing. As a First nation native, it is our duty to protect Mother earth and all the creek and Rivers all the lakes and the wetland especially the Oak Ridge man. Our Future start today so what is Hydro One doing today to protect our Tomorrow!

I found criminal and insane that a smart company like Hydro One would do such a stupid move.

The Oak ridge moraine is protected by Federal and Provincial laws. But Hydro One still is keen on building that huge transfer station on protected land. Studies shows that

there's better and safer places to build this big project. It only <sup>takes</sup> one missteps to really screw this part of the Oak Ridge moraine, and it will take a long time

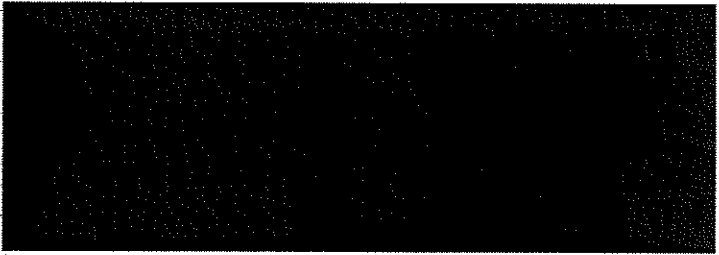
before bringing things to normal concerning the water quality that Hydro One is putting in jeopardy.

Other sites are safer and more profitable that's less harmful to the environment.

I'm totally against this building site  
and the negative impact it will create.

Hydro One needs to take ownership and  
leadership to cancel this project to  
show to Ontarians and all Canadian that  
Hydro One is taking ~~serious~~ serious  
initiative in being no#1 in providing  
electricity and a safe environment for  
Today, Tomorrow and the future for  
generation to come.

And if Hydro One  
can't see the negative impact it will  
cause and the black eye it will give the  
company, maybe it's time for new  
management at the head of the company.





Yu-Sang Ong,  
Hydro One Network's  
Environmental Planner

MINISTRY OF THE ENVIRONMENT

Dec 7/2012

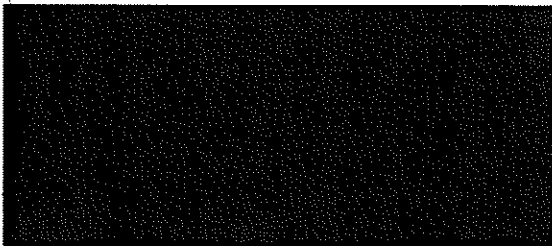
## Hydro One Back OFF.

As you are well aware, this land you are planning to construct this massive Transformer Station is our only source of water. Hydro One says they would drill new wells if they felt responsible. Do you think our community is that ill-advised. Are you going to drill new wells in some other region? When a spill occurs, are it will all of the Moraine will be contaminated. How will we get our water? maybe we can all get water holding tanks set on our properties!

We are not against the building of this plant, if it is truly needed, we are against where you plan a building it.

## Stay OFF THE MORAINÉ

We are asking for a level 2 environmental assessment on the Clarrington sub station.



Yu-Sang ong, Environmental Planner  
Hydro One Networks Inc.

483 Bay Street South Tower, 6th Floor  
Toronto, Ontario  
M5G 2P5

DECEMBER 7, 2012

Re: DRAFT ENVIRONMENTAL STUDY REPORT CLARINGTON TRANSFORMER STATION

---

Dear Yu-Sang ong,

I am requesting a Part 2 order to address the concerns related to the Proposed Clarington Transformer Station.

The Proposed Station is being planned on the Oak Ridges Murrain which is meant to protect the land and environment from any development to ensure that the water supply is protected from any pollution or future construction.

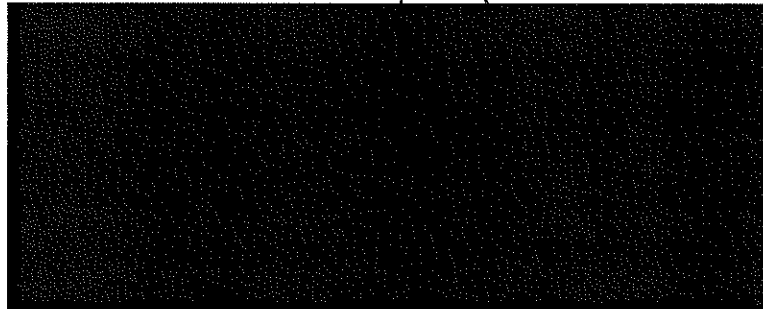
I am a practicing local Realtor with Royal LePage Frank Real Estate and this proposed development will be detrimental to property values and adjacent property owners may not be able to sell their properties at any price.

Our property is currently an organic farm where we do not allow any pesticides or artificial fertilizers.

and we actively promote Natural Farming Practices.

Due to Energy Conservation and surplus energy being generated, My wife and I feel that this proposed Transformer Station is not needed at this time. Any proposed development of this nature should not be allowed in this environmentally sensitive location.

Yours Sincerely



06 DECEMBER, 2012

ATTN:

MINISTER OF THE ENVIRONMENT  
135 ST. CLAIR AVE., WEST  
12<sup>TH</sup> FLOOR, ONT. M4V 1P5

DEAR SIR:

WE FIND IT VERY DISCOURAGING THAT HYDRO ONE IS PROPOSING A 'MEGA' TRANSFORMER STATION (75-100 ACRES IN SIZE) ON THE HILLS OF THE OAK RIDGES MORAINES. IT IS OUR UNDERSTANDING THAT THE OAK RIDGES MORAINES IS AN ENVIRONMENTALLY UNIQUE AND SENSITIVE SECTION OF LAND THAT IS PROTECTED BY OUR PROVINCIAL GOVERNMENT. THIS PROJECT SITE HERE IN CLARINGTON CHALLENGES THE VERY PRINCIPLE OF PROTECTING A PRICELESS AND IRREPLACABLE TRACT OF LAND THAT STORES AND SUPPLIES CLEAN DRINKING WATER TO LITERALLY THOUSANDS OF CITIZENS ON WELL SYSTEMS IN THE REGION.

WE HAVE REVIEWED HYDRO ONE'S DRAFT ESR ISSUED TO US ON THE 15<sup>TH</sup> NOVEMBER, 2012 AND FOUND IT LACKING IN MANY SIGNIFICANT AREAS. THE THREE PUBLIC MEETINGS HOSTED BY HYDRO ONE SINCE MAY 2012 WERE MERELY "LIP SERVICE" TO THE LOCAL COMMUNITY. THEY ARE CLEARLY CLOSEMOUNDED TO ANY ALTERNATIVE SITES OFF THE MORAINES AND SHOWED NO REAL INTEREST IN CONSIDERING ANY OTHER SITES WHATSOEVER.

AS A LOCAL COMMUNITY WE HAVE BEEN MISLED, LIED TO AND 'BULLIED' SINCE THE INITIAL PROPOSED SMALLER (1/4<sup>TH</sup> SIZE) TRANSFORMER STATION (ENFIELD TS) EA PROCESS SPANNING 2006-2008. SINCE THAT PROJECT WAS SHELVED, HYDRO ONE HAS NOW CREATED ARTIFICIAL TIMELINES FOR THIS PROJECT WHICH ARE CLEARLY UNSUBSTANTIATED. IT IS ALSO OUR BELIEF THAT THERE ARE CONFLICT OF INTEREST ISSUES TO BE INVESTIGATED AND ADDRESSED BEFORE ANY DECISIONS ARE MADE TO GO FORWARD, IF AT ALL. TO OUR KNOWLEDGE, THERE ARE NO OTHER TRANSFORMER SITES ON THE OAK RIDGES MORAINES AND MAKE THIS PROPOSAL NOT ONLY ABSURD BUT ALSO ENVIRONMENTALLY IRRESPONSIBLE!

CONT'D ...

OTHER THAN OWNING THIS SITE, HYDRO ONE HAS NO OTHER CONVINCING REASON TO BUILD ON SUCH A POOR SITE PLATFORM.

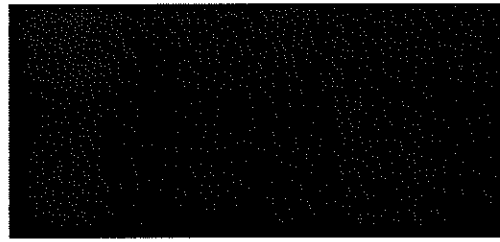
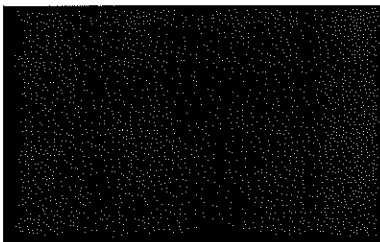
THERE ARE SIGNIFICANT UNDERGROUND HYDROGEOLOGICAL FEATURES THAT ARE DOWNPLAYED AND MINIMIZED IN HYDRO ONE'S ESR DRAFT. THIS DRAFT ESR WAS ISSUED BEFORE THE BORE DRILLING ON THE SITE WAS COMPLETED. SEVERAL TECHNICAL DRAWINGS ARE NOT SUBSTANTIATED AS TO SOURCE OR BY PROFESSIONAL CREDENTIALS.

THE FOLLOW-UP CHARTS ARE NOT ACCURATE AND UP TO DATE IN THE ISSUED DRAFT ESR. CERTAIN SECTIONS ARE INCOMPLETE IN DOCUMENTATION. THERE ARE SEVERAL OMISSIONS IN THE PUBLIC CONSULTATION PROCESS REPORTS.

FINALLY, WE DO NOT AT THIS TIME HAVE FULL DISCLOSURE OF ALL TECHNICAL AND RELATED DATA TO SUPPORT HYDRO ONE'S CLAIM THAT THEY HAVE GIVEN DUE DILIGENCE TO THIS PRESCRIBED PROCESS OF A CLASS ENVIRONMENTAL ASSESSMENT.

WE THEREFORE REQUEST A HIGHER LEVEL OF ENVIRONMENTAL ASSESSMENT BY WAY OF A PART II ORDER REQUEST EFFECTIVE WITHOUT DELAY FOR OUR PROPERTY.

SINCERELY,



December 6<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

Dear Sirs:

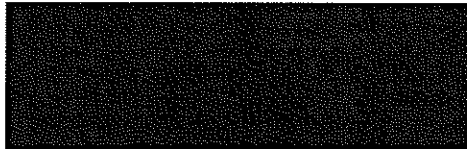
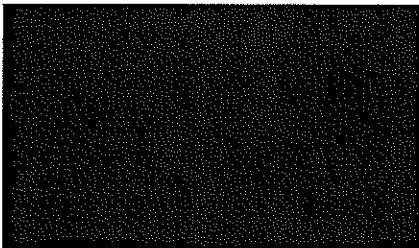
RE: Clarington transformer station

We are asking for a level 11 environmental assessment on the Clarington sub-station.

My family moved to the country, for clean water, cleaner air, friendlier neighbors and to escape the rat race. We enjoy our pets and our property. We are terrified of our water being polluted. Even if Hydro digs new wells, if the underground streams are contaminated, it is of no help to us.

Further, it is Hydro, who will tell you your water is safe, having been at several meetings, I watched Hydro claim that the mineral oil that has escaped at other stations is harmless, if that is so, why do they require clean up crews, in hazardous material suits.

Sincerely



December 6<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

Dear Sirs:

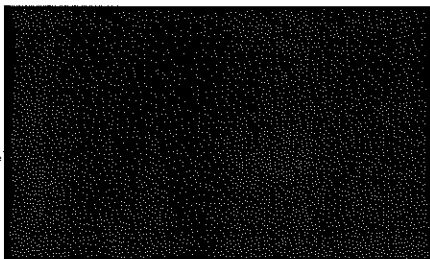
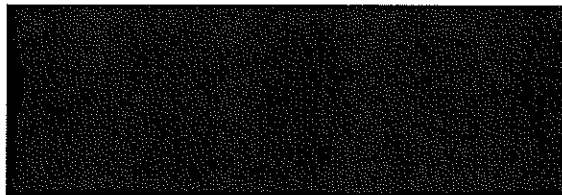
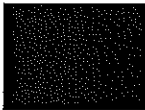
RE: Clarington sub-station

We are asking for a level 11 environmental assessment on the Clarington sub-station.

This sub-station, will have a detrimental effect on my property value, possibly poison my well and family. The government may wish to use this station as a stimulus package, but it is not a suitable location. Clean water is very important. To date we cannot manufacture clean water and this sub-station is not necessary. Technology is evolving all the time and in 20 years we may well have come up with more environmentally friendly ways to obtain power. Remember 20 years ago, everyone did not walk around with a phone stuck in their ear.

We should do the prudent thing and safeguard the moraine, at this time.

Sincerely



December 6<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

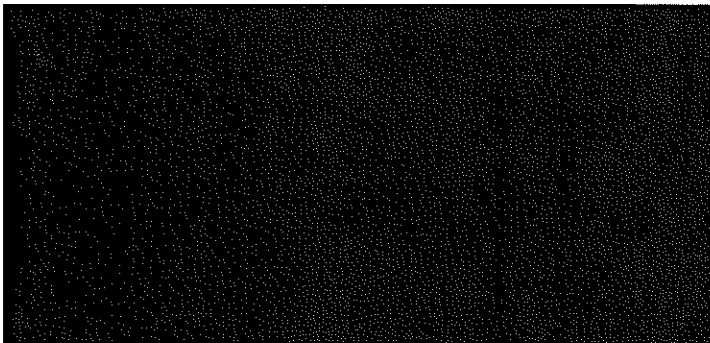
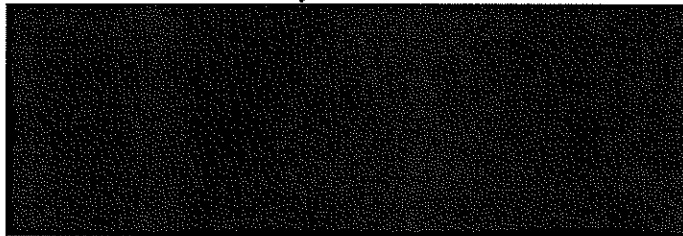
To whom it may concern:

RE: Clarington transformer station

We are asking for a level 2 environmental assessment on the Clarington transformer station, due to the fact that we were misled by Hydro One. They claimed their would be one small building with 3 extra concrete containment walls and surrounded by approximately 100 acres of green space. They claimed that this enfield station was required to accommodate north Oshawa, would be very small and way above code as they were concerned about the sensitive nature of the moraine.

We are very concerned about the damage to the moraine and the possibility of water contamination.

Sincerely





December 6<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

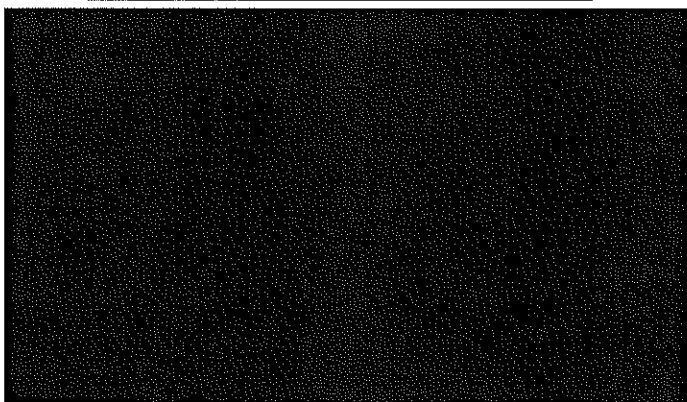
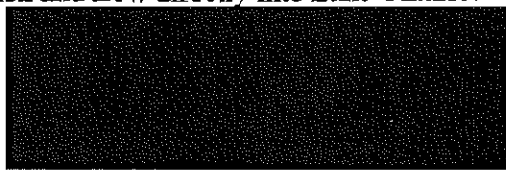
Dear Sirs:

RE: Clarington sub-station

We are asking for a level 11 environmental assessment on the Clarington sub-station.

Wildlife is abundant in this area, and they require space and clean water. With Oshawa and the greater Toronto area growing in leaps and bounds, these animals and birds have already been driven out of their homes. It is a farce that the government would protect the moraine and then allow Hydro One, the right to pollute possibly, hundreds of miles of underground water, flowing thru farmlands east and west of the proposed site. It could also affect streams and fish and flow directly into Lake Ontario.

Sincerely



December 6<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
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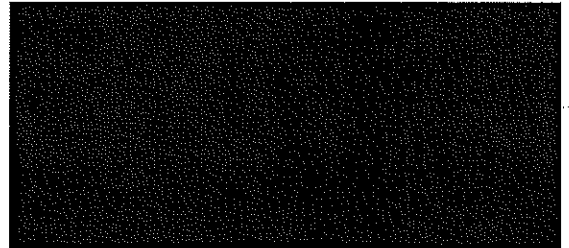
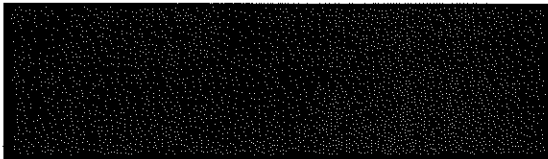
To whom it may concern:

RE: Clarington transformer station

We are asking for a level 2 environmental assessment on the Clarington transformer station. We moved to this area to escape the city and enjoy the natural beauty. Looking out at this monstrosity is not conducive to country living. I feel at this time, that my savings and dreams have been flushed down the toilet.

Hydro One should have to compensate property owners for the property de-valuation. Hydro One does not have enough money to compensate poisoning local residents.

Sincerely



December 5<sup>th</sup>, 2012.

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

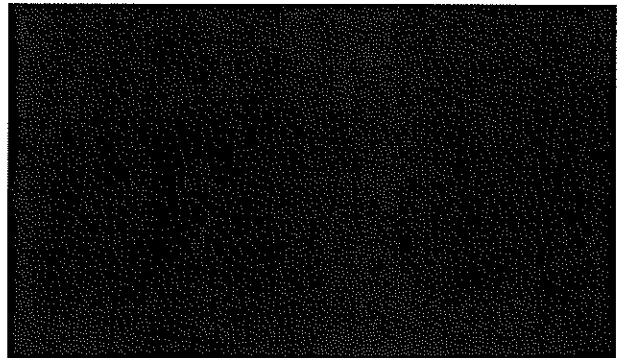
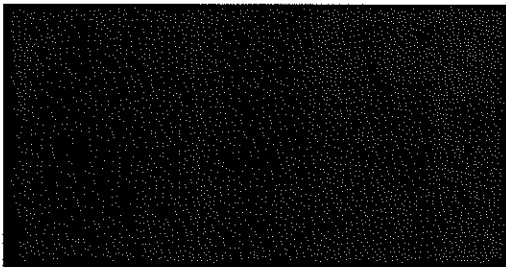
Dear Sirs:

RE: Level 2 environmental assessment for the Clarington sub-station

I find it interesting that the government would build a reservoir on Harmony Road north and than build a sub-station just north east of it that could pollute the water table.

I think residents of north Oshawa would be upset to find out that their water is full of isotopes. People in the city may not care about our farmland, but they will be up in arms if you poison their children.

Sincerely



December 5<sup>th</sup>, 2012

Yu-Sang Ong, Environmental Planner  
Hydro One Networks Inc.,  
483 Bay St. South Tower, 6<sup>th</sup> floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

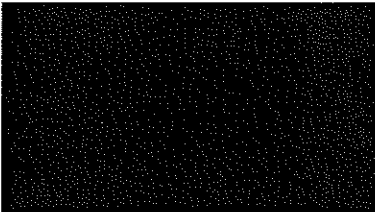
Dear Sirs:

RE: Level 2 environmental assessment for the Clarington sub-station

I have reached the age, where I was starting to plan my retirement, based on the fact that I would have my home and land to sell. Now my plans are in turmoil, and real estate agents have advised me to put my plans on hold.

Having paid my taxes, gone to work everyday and tried to save for a rainy day, I find this a real insult. If the government plans to treat it's taxpayers this way, we might as well all go on welfare, what is the sense of working your tail off, to lose it all.

Sincerely



5<sup>th</sup> December, 2012.

To:  
Yu-Sang Ong, Environmental Planner  
Hydro One Network Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, On M5G 2P5

Most scientists believe that global warming is happening. The summer of 2012, brought drought and extreme temperatures to Ontario. Senior climatologists believe that the weather patterns that we are experiencing in Ontario will continue.

The David Suzuki Foundation stated that the Green Belt Legislation and Protection of the Oak Ridges Moraine are the best pieces of Legislation passed by the Ontario Provincial Government because these protected lands consume so much Co2 and protect our fresh water supply.

The doomsday scenario portrayed by the Ontario Power Authority and Hydro One that the Pickering Nuclear Station would likely close in 2015 necessitating the Clarington Transformer Station construction has now been proven incorrect. "Units 5, 6, 7, and 8 at Pickering Nuclear are operating safely today and can continue to operate safely well into the future", i.e. beyond 2020.

Hydro One no longer has any compelling reason to build a massive 270 million dollar Transformer Station on the Oak Ridges Moraine within the Green Belt.

Hydro One may now honourably withdraw from the Class Environmental Assessment and support its President Laura Formosa who stated: "We remain committed to continually improving our Environmental Performance across all of our business lines." Surely this statement means Hydro One will help to reduce global warming by abandoning this project?

If Hydro One wishes to continue with the Class Environmental Assessment, we hereby request a Part 2 Order that will give the Clarington community a Full Environmental Assessment. We further request that Hydro One Personnel not summarize, edit or categorize our questions or comments. They are to be sent directly to the Ministry of the Environment.

## WATER

All citizens in this community take water for themselves and their animals from local ground water. Hydro One has not located all the wells in the immediate area between Langmaid Road and Grandview Street. This is a deficiency and oversight in Hydro One's baseline research with respect to existing area water wells.

We are deeply concerned about any toxic spillage that will occur on the moraine during the construction and operation phases when an inevitable transformer failure releases several thousands of litres of toxic mineral oil. (ie. Cherrywood Transformer Station spill in 2003 resulting in 160,000 liters spilt into the nearby Lynde Creek area)

The excavation of 21 feet of overburden on the proposed site will threaten our shallow wells and further endanger our deep wells and the aquifer that feeds both well types.

Our inspection of the proposed site has revealed the presence of springs and we now demand that "a hydrological evaluation per section 26 of the ORMCP be conducted". To do otherwise is out of conformity with the ORMCP.

## CONSTRUCTION

We believe that the soil, on which the transformers are to be placed, will become unstable when the five 100 ton transformers are placed on what water experienced well drillers call quick sand. We further believe that the weight and the vibration of these transformers on this type of soil will cause movement and flexing in the containment system. This will eventually cause cracks and/or breakage in the concrete containment system allowing contamination of the Oak Ridges Moraine. To our knowledge no other transformer station has ever been built on the provincially protected Oak Ridges Moraine.

## COMPENSATION

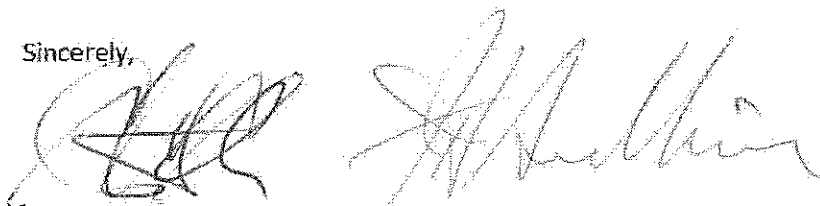
The Environmental Study report indicates that O.P.A. planned a Transformer Station on Hydro One's site in 2007. At the last P.I.C. in 2008 concerning The Enfield Transformer Station a Hydro One Engineer told us about the Mega Project now named The Clarington Transformer Station. This new project was not communicated to the Clarington Planning Department. Four Real Estate Transactions have since taken place on the perimeter of this proposed site. Inquiries did not reveal this project which is clearly an injustice to these residents. Therefore monetary compensation should be paid to these four residents. Also monetary compensation should be paid to all residents for loss of real estate value, health and safety because of noise, dust and disruption to local traffic. Monetary compensation must also be paid to all residents now and in the future for any deterioration in the quantity or quality of well water because of toxic spillage and/or loss of water due to water vein compaction. This would occur as result of the extreme weight of the equipment placed on the moraine by Hydro One.

Finally, in Hydro One's draft ESR report there are contradictions, errors of fact, e.g. there are still no dairy cattle in this area. There are sentences that do not make sense and grammatical errors. It appears to us that this report has been done in such haste to meet an artificial dead line that such mistakes become inevitable. We would be pleased to elaborate these noted points when the EA "bump up" occurs. Since we have been through two Environmental assessments since 2006, we think that we can make recommendations to the M.O.E. that will improve the system for our fellow citizens.

Our quality of life in our community has significant value and this project if approved, will definitely impact our individual local property values significantly and threaten the clean water supply that we currently require to live on. Our health and that of our families should be paramount and not ignored by Hydro One as our problem.

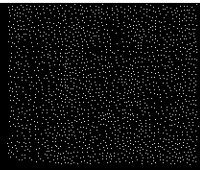
We look forward to the granting of a "Phase 2 bump up" for this proposed project by the Ministry of Environment.

Sincerely,



The Enniskillen Environmental Association and area residents.

Monday, December 4, 2012



Re: Clarington transformer station  
Hydro One  
483 Bat Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To whom it may concern:

Imagine, driving by a beautiful and magnificent landscape one day... Then you drive by the next and BOOM! There's this big huge grey ugly box, it just ruins the whole land scape. Hydro One, why would you build a nuclear plant on the Oak Ridges Moraine? Why wouldn't you just build it where the old one was?


If Hydro One wants to build on the Oak Ridges Moraine just imagine how crazy the house contractors will be? Obviously, they will want to build on it as well but it's a protected area.<sup>1</sup>

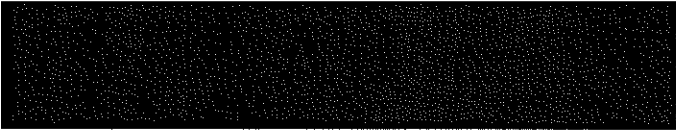
It will ruin the Moraine if you build on it. The Oak Ridges Moraine; a lot of people consider it to be weak and vulnerable, if the workers build on it, that won't just ruin the landscape but it will also ruin the Moraine.<sup>2</sup>

It will crack the aquifers. When digging it will most likely crack the aquifers causing water to run through quicker and making it possible for contamination in the aquifers.<sup>3</sup>

You could argue that it will make more jobs in Clarington, but here's the weakness, you can just build it somewhere else... like where the old one was.

In my opinion, and many others, you should definitely not build a nuclear plant on the oak ridges moraine.

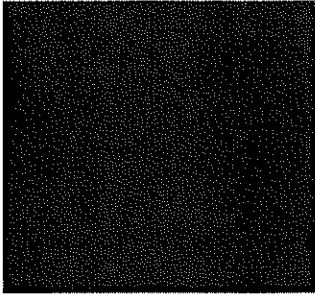
Sincerely, 



Foot Notes

1. <http://www.mah.gov.on.ca/Asset1778.aspx>
2. My understanding.
3. [http://www.conservation-ontario.on.ca/source\\_protection/files/ODWSP%202009%20Finals/ODWSP\\_FAQS\\_vulnerable\\_EN\\_2009\\_02\\_27\\_WEB.pdf](http://www.conservation-ontario.on.ca/source_protection/files/ODWSP%202009%20Finals/ODWSP_FAQS_vulnerable_EN_2009_02_27_WEB.pdf)

Dec. 4<sup>th</sup>, 2012



Re: Clarington Transformer Station

Hydro One

483 Bay St. North Tower

15<sup>th</sup> Floor Reception

Toronto, Ontario

M5G 2P5

To Whom It May Concern:

Would you go into a stranger's backyard and build there without permission? Well I suppose you would- If you're Hydro One. Though I guess they DO generally have permission... You see, Hydro One would like to – and is planning to – build a Hydro Station in Clarington. Not so bad? Get this- They're building it on protected land! The Oak Ridges Moraine to be specific.

But if Hydro One builds this Hydro Station on the Moraine, others will assume it's alright for them to build there too, correct? The residents of Clarington express concern that if Hydro One builds on the land, it will be alright for others to use as well. <sup>1</sup> Just Think Hydro Stations, Parking Lots, shopping malls, Wal-Mart's, McDonalds, Wendy's... All this crap we don't need on our beautiful Moraine.

Speaking of beautiful, did you realize that building this Hydro Station will **RUIN** the view that the neighboring residents cherish? Well it will. "I commend them for standing up for the Oak Ridges

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<sup>1</sup> [www.DurhamRegion.com](http://www.DurhamRegion.com)



Moraine, I've been on the property, and it is pristine" Says Mr. John O'Toole<sup>2</sup>, a member of parliament. The poor Oak Ridges Moraine deprived of its beauty. And it's all thanks to you.

Another thing about the travesty of a Hydro station on our Moraine is the quick decreasing of the value of houses. Because really, who wants to live near all that buzzing. It would be like buzz, buzz, buzz, ha-ha now you can't sleep, buzz, buzz, buzz, oh did I wake your baby up? Buzz, buzz, buzz ha-ha you're so annoyed and you can't sell your house because no one will buy it, buzz, buzz, buzz deal with it. I sure wouldn't want that...And they won't be able to sell their houses because of the less amount of clean water, on top of that.<sup>3</sup>

I suppose you could argue that Hydro One has permission to build on the Oak Ridges Moraine, But it IS protected land, so that's not really fair. In my books at least...

So, now that you know all the problems your Hydro Station will cause, I'm SURE you can find some other place to build it, right? Good to hear it.

Sincerely,

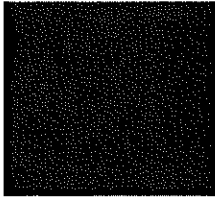
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<sup>2</sup> [www.DurhamRegion.com](http://www.DurhamRegion.com)

<sup>3</sup> [www.DurhamRegion.com](http://www.DurhamRegion.com)

Tuesday, December 04, 2012



Re: Clarington Transformer Station

Hydro One 483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

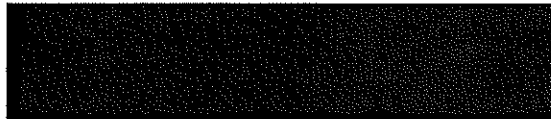
Would you rather have a nuclear plant in your backyard or just build a new one where the old one was where it didn't bother anyone. I think it should stay where it was, but that's just my opinion. Hydro one on the other hand thinks differently.

Some of the reasons that I think the new power plant should not be built in Clarington are: it is dangerous to live near a power plant especially when it is left unattended. Some proof for this is "direct radiation from damaged reactor"<sup>1</sup>, and radiation can be fatal with a certain amount, making it dangerous. The digging will disrupt local wells from the aquifers being damaged. I know this because "Cracks from digging cause water to flow faster which can make contamination risk higher"<sup>2</sup>. Oak Ridges Moraine is a protected area. My proof of this is "Most of the properties owned by or the Oak Ridges Moraine land trust are not open and accessible to public use."<sup>3</sup>

You could argue that the new power plant could create more jobs for the people in Clarington. But here's the problem, the new plant will cause tons of traffic in the Clarington area to residence that are not used to such a problem.

In conclusion, the smart decision in this issue would be to not build a new power plant in Clarington on the Oak Ridges Moraine.

Sincerely, 



<sup>1</sup> <http://www.bankrate.com/search/results.aspx?q=cost+of+living+near+nuclear+power>

<sup>2</sup> [http://www.conservation-](http://www.conservation-ontario.on.ca/source_protection/files/ODWSP%202009%20Finals/ODWSP_FAQS_vulnerable_EN_2009_02_27_WE)

[B.pdf](http://www.conservation-ontario.on.ca/source_protection/files/ODWSP%202009%20Finals/ODWSP_FAQS_vulnerable_EN_2009_02_27_WE)

<sup>3</sup> <http://www.oakridgesmoraine.org/>

Yu. Sang Ong  
Hydro One Networks INC.

MINISTRY OF THE ENVIRONMENT

Hydro One

Dec 3/2012

Re. Clarington Transformer Station

I am a resident in the area, and we are very upset with this project.

We are concerned for our family's health and our water.

This ground is very sensitive and unstable for this site.

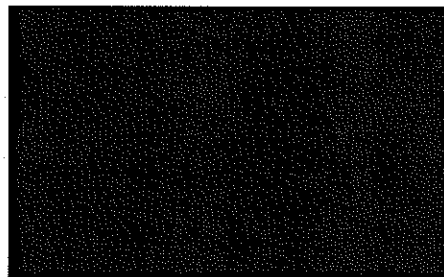
How is it Hydro can build what ever they want on the moraine when it is supposed to be protected. DO laws not count for Hydro. BIG DOUBLE STANDARD. How would you like to build and renovate your retirement dream home, that you planned to stay in till you die.

Now I have to wonder what kind of disaster I might be in for if I stay here thanks to Hydro who don't care!

You have other locations that would work. And if things go wrong here, it will be more expensive for you, than if you had just chosen one of the other sites.

please reconsider your location.

We Demand a level two environmental assessment.



December 3, 2012

To Whom It may Concern,

I am a senior residing at [REDACTED] [REDACTED] in the City of Oakawa. It has come to my attention that Hydro One is planning a new transformer station in our area. Our Properties are on the Oak Ridges Moraine, a supposedly "protected Area" which will seriously impact our enjoyment and use of our property.

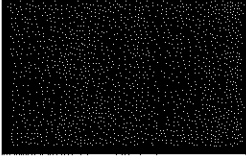
This is to question the advisability of building such a transformer station, which at best, will have a very negative effect on our lives.

Please re-consider, and find a less family property, which will not affect us.

Thank You

[REDACTED]

Monday December 3, 2012



Re : Clarington Transformer Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To whom it may concern:

What would you do if your house was torn down because people decided they to build something on that land; something that we already have a few of. Well that's how these animals feel. Their habitats will be ruined due to the building of a Hydro Station on the Oak Ridges Moraine. I think that they should NOT build a Hydro Station for these reasons:

Firstly, because if Hydro One gets to build on the Oak Ridges Moraine, others will think that they can build on the Moraine as well. Resident expressed concern that if Hydro One built on the environmentally protected land, it would open 'Pandora's box' for others to also build on the land.<sup>1</sup>

Secondly, because digging might upset the local groundwater in the aquifer which could affect the residents. 'If anything were to leak at the unmanned station it could pollute the groundwater for miles' said residents.<sup>2</sup>

Another reason I think that they should not build on the moraine is that it could cause possible health complications, especially to newborns for the families that live near there. Realtor pro Dave Dry says they can cause cancer and research states 'higher risk of children getting leukemia'. Gerry Higgins also says that there is a higher risk of diseases such as cancer due to power lines.<sup>3</sup>

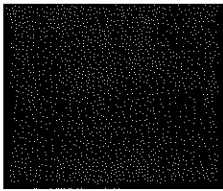
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<sup>1</sup> Ask the eco geek

<sup>2</sup> Office of the auditor general of Canada

<sup>3</sup> Zoo casa Canadian real estate search

Monday, Dec. 3<sup>rd</sup>, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay Street North Tower 15<sup>th</sup> Floor Reception  
Toronto, Ontario  
MSG 2P5

To whom it may concern:

If a stranger came walking up to your house and told you that your house is being bought by the government so we can build a hydro station in place of your home, we will give you a brand new home in a new location, would you move? Or would you fight for your rights?

Hydro one shouldn't build on the Oak Ridges Moraine because; it can damage the aquifer that they would be tapping into. If hydro one damages the aquifer, then the residents that tap into the same aquifer will no longer have the same fresh and clean water they have now. If they dig and tap into the aquifer it will eventually dry out and the residents will be forced to move because they won't have fresh or clean water anymore.

"People say that a mother that lives near a set of hydro lines that is pregnant; their baby has a better chance of having a birth defect"<sup>1</sup>. Yes it is a good job opportunity but really if a woman expecting would choose her baby over the jobs.

Why does Hydro one get to buy land and build on the Oak Ridges Moraine? "Most people that live on the moraine don't get to build anything from a bird house to a shed; they aren't allowed to build anything once so ever"<sup>2</sup>. So why is Hydro one allowed to build a factory on the Oak Ridges Moraine? "The residents are not pleased with the government so they want to protest against hydro one"<sup>3</sup>.

No one wants to risk losing their homes and/or damaging their neighborhood, there are many other ways to give people jobs and money but why did they pick Hydro one to build a Hydro station on the Oak Ridges Moraine? Everyone wants to know.

If someone wants a plant or factory in their backyard for their children to look at every time they have a birthday party or just plain having friends over well then that's their choice, I know for sure that I wouldn't want a factory or a plant in my backyard. So the people that live on the Oak Ridges

Moraine most likely don't want a plant or factory in their backyard or even near their homes. It leaves pollution and can destroy their fresh water coming from the aquifer.

So if Hydro one ends up building a factory or plant, they will be destroying people's backyards, yes, yes they might have said that they will give them a new well or even buy their home off of them, but really do you think that they would give up their home so hydro one can build a factory or plant that will end up polluting our earth? Sadly they would have no choice, but if they did they most likely wouldn't in less they want the new factory or plant. The new factory plans are ruining people.

Hydro one should not build because all they are doing is polluting our earth and it doesn't make sense because Hydro one is Ecofriendly Company and now they want to build this big factory which will pollute the earth. If they really want to be an ecofriendly company they should cancel the plans for the construction.

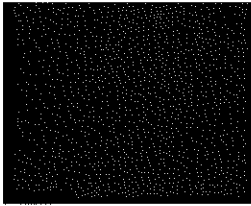
Sincerely,

Footnotes:

1. [www.durhamregion.com](http://www.durhamregion.com)
2. [www.durhamregion.com](http://www.durhamregion.com)
3. [www.durhamregion.com](http://www.durhamregion.com)

December 3<sup>rd</sup>, 2012



Re. Clarington Transformer Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

Imagine if someone walked straight into your house without permission and started watching T.V. Well, it sounds a lot like Hydro One. Hydro One wants to build a station on the moraine but, me along with some Clarington residents are against the idea.

Here's my three reasons. <sup>1</sup>Firstly, it'll increase the amount of traffic in that area since construction will be going on. To back it up, construction workers will be there every day building the station and blocking roads. Secondly, the Oak Ridges Moraine is a sensitive and protected land. <sup>2</sup>But, I guess too sensitive to the government because they are letting Hydro One build on it but not anyone else so how's that make any sense. My last reason is that digging might upset the local ground water in the aquifer. Evidence has it that they'll be <sup>3</sup>"digging right on top of the Moraine, holes 40ft deep and 6 feet in diameter."

You could argue against me that the government gave Hydro One permission but here's the weakness, they wouldn't let anyone else build. Or you could argue that it would create job opportunities but really there's other places besides Hydro One that you could get employed at.

In conclusion I'm 100% against the government's decision to let Hydro build on the OAK RIDGES MORAINE!

Sincerely,



<sup>1</sup> <http://www.durhamregion.com/news/news/article/1491622>

<sup>2</sup> <http://www.durhamregion.com/news/news/article/1491622>

<sup>3</sup> <http://www.durhamregion.com/news/news/article/1491622>



Monday, December 03, 2012



Re: Clarington Transformer Station

Hydro One 483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
MSG 2P5

To Whom It May Concern:

What do you think it feels like when someone builds something in your backyard? Well some people are about to find out. There have been many beautiful landscapes that have been destroyed from things that aren't really needed, in this case Hydro one wants build a Hydro Station in Clarington. There's no need for to get another because we already have one in Pickering. The electricity still gets to all of us but the hydro lines run longer.

My first reason that you should not build a hydro station in Clarington is because when children are born near hydro lines can have disabilities; it's proven fact though and true. Kids that were born near hydro lines could a chance of being born with Down syndrome. 1. Many people think buying a home near hydro lines is better and the electricity gets there faster, though it doesn't the electricity gets there either way. Also Electric fields and magnetic fields are emitted from the hydro lines.

The second reason is that having another hydro station increases traffic due to the space it takes up the construction on the roads will cause more traffic and could cause more accidents and there's more possibilities of death.

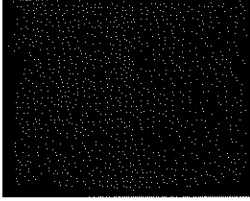
The final reason is that the station ruins the ground water that people are using. People are using the ground water for drinking, showering etc. If you were to build a hydro station people would lose their drinking water and will still get the same outcome of their electricity, there getting it either way just this time their losing their water.

Sincerely,  

**Foot Notes**

1. <http://www.hydroassoc.org/about-the-hydrocephalus-association/hydrocephalus-media-resources/hydrocephalus-statistics/>

Monday, December 3, 2012



Re: Clarington transformer station

Hydro one

483 Bay Street North Tower

15<sup>th</sup> Floor Reception

Toronto, Ontario

M5G 2P5

Just imagine hydro one building right in would you do about it...?

My first reason that Hydro One shouldn't build the power station because it will ruin the local aquifers. It will ruin because digging into the aquifer and crack it. When you crack it the water will run to fast and get contaminated.<sup>1</sup>

Hydro one could argue the Clarington residents because hydro-one has permission to build and dig on that land. But here's the weakness the government already said that it was protected.

My second reason is the increase of traffic. I know the traffic will increase because all of the construction and that will cause the increase of traffic.

And my final reason is that it will ruin the beauty of the oak ridges moraine. I think that people would rather prefer to look at the oak ridges moraine then a big hydro station.

So in conclusion I think that it is a bad idea to build on the oak ridge's moraine. Even though it will only affect 50 people it will upset the aquifers to and people will need to get new wells. Also the increase of traffic and it will ruin the beauty of the oak ridges moraine.

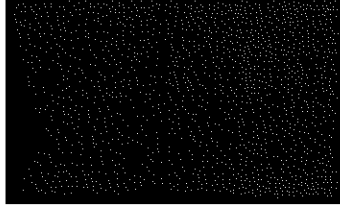
Sincerely,

A black rectangular redaction box covering the signature.

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<sup>1</sup> [http://www.conservation-ontario.on.ca/source\\_protection/files/ODWSP%202009%20Finals/ODWSP\\_FAQS\\_vulnerable\\_EN\\_2009\\_02\\_27\\_WEB.pdf](http://www.conservation-ontario.on.ca/source_protection/files/ODWSP%202009%20Finals/ODWSP_FAQS_vulnerable_EN_2009_02_27_WEB.pdf)

Dec.3<sup>rd</sup>, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay St. North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario

To whom it may concern:

Buzz, Buzz, oh sorry, am I annoying you? How irritating would it be to have constant buzzing right beside your home 24/7? It's also known as noise pollution. Who is guilty? Hydro One. There has been a report on a leakage of oil from a hydro station in Oakville and it could easily happen on the Oak Ridges Moraine and that could ruin the wildlife and more importantly it could soak into the ground and destroy the ground water.

There could be possible health concerns regarding different types of cancer including in children. Do you really want to inflict cancer on children which is putting them risk of long term illnesses and even death?<sup>1</sup>

Also the consistent buzzing could cause problems with sleep or concentration and it would be extremely irritating. It could affect children or even adults with certain disabilities<sup>2</sup>

Finally, digging into the Oak Ridges Moraine could upset the aquifer. As Mr. Sullivan said "If you start messing with the water system you've got big problems." This clearly states that you should not be digging on the Moraine because if something goes wrong you're in deep trouble.<sup>3</sup>

Sincerely,

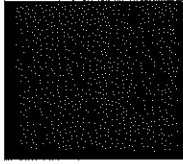


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<sup>1</sup> [http://pgs.ca/up-content/uploads/2009/06/TRITIUM.Fairlie/2010.1JOEH\\_July10\\_Fairlie1.pds](http://pgs.ca/up-content/uploads/2009/06/TRITIUM.Fairlie/2010.1JOEH_July10_Fairlie1.pds)

<sup>2</sup> <http://www.durhamregion.com/print/1491622>

Monday, December 3, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G2P5

To Whom It May Concern:

Why would Hydro One Want to wreck a community? Here's what I think, Hydro One should not build their hydro station in Clarington.

Firstly, I believe so because they are building on sensitive land. The moraine is over 12 000 years old, home to over hundreds of plants and animals and is safe drinking water to a quarter of a million people.<sup>1</sup>

Secondly, hydro lines aren't safe! Researchers say that there might be possible health complications with newborns living near hydro lines. Concerns were first raised in the late seventies. Information says it was found that children living close to large electrical towers had a higher rate of leukemia.<sup>2</sup> And you don't want that happening to the children in Clarington...do you?

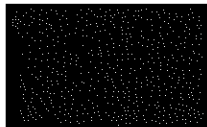
Thirdly, the hydro station is going to ruin the moraine water! Residents are worried about oil leaking into the water system from the station because the same thing happened in Owen Sound.<sup>3</sup>

Hydro One could argue that the government gave them permission to build the hydro station, but we could argue back that the land was supposed to be protected anyways?

In conclusion, I just wanted to let Hydro One know that the hydro station won't just affect 2 or 3 people!

And I hope you change your minds.

Sincerely,



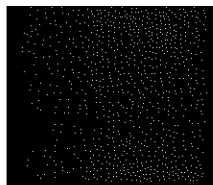
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<sup>1</sup> [www.oakridgesmoraine.org](http://www.oakridgesmoraine.org)

<sup>2</sup> [www.greenlivingonline.com](http://www.greenlivingonline.com)

<sup>3</sup> [www.owensoundsuntimes.com](http://www.owensoundsuntimes.com)

Monday, December 03, 2012



Re: Clarington Transformer Station

Hydro One 483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

I know that Oak Ridges Moraine is really important and that is why I am against Hydro One building a hydro station on its precious land. Oak Ridges Moraine is like your backyard, would you really like someone to dig in your backyard? So, why do people want Hydro One to build the hydro station on precious land?

My first reason for not wanting them to build the station is because the holes they have to dig will be 40 feet down and 6 feet in diameter. So, the holes will ruin the aquifers. My next reason is that the station will take up way to much space; the station that Hydro One is building will take up 100 acres of land! That is a big part of Oak Ridges Moraine's land. My last reason is that it will increase traffic because the construction will take lots of time and when it is done the people who work there will have to drive there so there will be more traffic going there.<sup>1</sup>

Hydro One could argue that they have permission to build it but the government said that Oak Ridges Moraine is protected.

So, if they build the station then the Oak Ridges Moraine will be ruined. The Oak Ridges Moraine will lose lots of its precious land and traffic will increase. This is why I don't think Hydro One should build the station on protected land.

Sincerely,

A solid black rectangular redaction box covering the signature area.

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<sup>1</sup> <http://www.durhamregion.com/news/article/1491622--clarington-residents-worried-over-planned-hydro-station>

Dec.3, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay St. North Tower  
15<sup>th</sup> floor reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

Attention Hydro One! I don't think that you should build a hydro station on the Oak Ridges Moraine. Here are my concerns.


Firstly, if anything were to leak at the unmanned station, the groundwater could be polluted for miles.<sup>1</sup> According to Clarington Residents. Does Hydro One really want to take that chance? Would you want to drink oil - contaminated water?

Secondly, the plant would cause noise pollution.<sup>2</sup> Would you want to wake up from your beauty sleep to a low buzz to keep yourself awake all...night...long? It would also add that weird sound to an awkward silence. Just another contributing factor.

Thirdly, the plant will cause childhood leukemia.<sup>3</sup> So, children born near energy transformers will automatically get leukemia. What did those children do to us? They didn't do anything to be born with a disease. So Hydro One, do you really want to increase childhood diseases like leukemia?

You could say that Durham Region and Clarington need energy when the Pickering Plant closes, but the land is protected. The government just twisted the rules for them. It's like a game, the government changed the rules so they would win. Is that fair? I don't think so.

Sincerely,



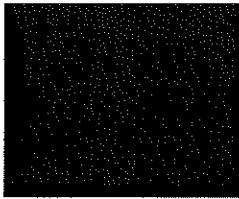
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<sup>1</sup> [www.hydroworld.com](http://www.hydroworld.com)

<sup>2</sup> Cindy Li and Gerry Liang

<sup>3</sup> [hc-sc.gc.ca](http://hc-sc.gc.ca)

Monday, December 3, 2012



Re: Clarington transformer station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

The Oak Ridges Moraine is considered some peoples back yard. Also would you want someone digging in your back yard? No, you would not want someone digging in your grass and soil because that grass will not grow back for a few weeks, but like the grass the Oak Ridges Moraine soil will NEVER GROW BACK.

First the digging on the Moraine might upset the local ground water in the aquifers under the ground. Also the holes will be<sup>1</sup> 40 feet deep and 6 feet in diameter. Second it will increase traffic on the roads near because each and every one of those workers for Hydro One will be driving. <sup>2</sup>Third the Hydro One station takes up 100 acres of land on the sensitive Oak Ridges Moraine when it should take up 20 to 40 acres of land.

Hydro one could argue against Clarington residents because the government has given them permission to dig on the land. But here's the weakness it only affects 50 people which own land that is on the Moraine.

Even know it only affects 50 people the digging could upset some people's wells and mess up the water system. That is why Nobody should every build or dig on the Moraine.

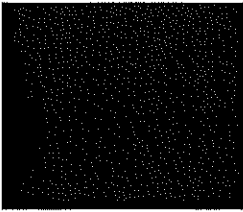
Sincerely,



<sup>1</sup> <http://www.durhamregion.com/news/article/1491622--clarington-residents-worried-over-planned-hydro-station>

<sup>2</sup> <http://www.durhamregion.com/news/article/1491622--clarington-residents-worried-over-planned-hydro-station>

December 3<sup>rd</sup>, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

How would you like it if somebody built something in your backyard without your permission?

Well, it's like letting Hydro One build a power plant station on the Oak Ridges Moraine. If you let them build the plant, you will know the answer to my question. I don't think Hydro One should build a power plant in that location. I have three clear reasons of why this is so. First, it could ruin the ground water well users are using. Second, there is another perfect location they could build it on. Third, it's unfair to the resident's owners that they were lied too.

Many of you might know that this project could ruin the ground water well users are using, but do you know the threat it creates for the families using the Oak Ridges Moraine's aquifer's water? "Right on top of the Oak Ridges Moraine, holes 40 feet deep and six feet in diameter... that is right into the heart of the moraine" 1- say's Doug Taylor. This plant could ruin the precious water children and adults are using that live near the moraine. The stakes are too high if you ask me, this could ruin lives. This project could cause families to move out of their homes even if they don't want to. Simply because of the fact that Hydro One did not want to move the projects location to a better place.

If there is a better place to put the new plant's location, why not? It would take a massive weight off the resident owners shoulder. If the plants location was moved, there would be no ruining families' fresh water. It would also save a number of wells. In Pickering there is a perfect location for a power plant. It would be away from trouble and still just as effective.



Why should the resident owners be lied to? I truly believe that it is extremely unfair that construction men get to build a power plant in their backyard that could ruin resident owner's water, and also be straight up lied to. There is an article on this whole Hydro One building a power plant on the Oak Ridges Moraine problem and in it Carol Taylor says: "They told me it's a greenbelt. They'll never build anything in our backyards."2 They shouldn't be building a power plant on this location in the first place. On top of risking fresh water for families, the contractors lie about what their building. If you ask me, this is neither true nor fair.

There are reasonable arguments for the idea of moving the projects location. One of them is that the Hydro cables are already put in place for the Clarington location. The weakness in this is that it's well worth moving the cables if the projects location moves to Pickering. The stakes are too high and even if removing the cables and moving them to a safer place is tricky, it is still worth putting in the effort and moving them. Moving the cables location as well as the whole plants location could save fresh water and wells. It could bring joy to families that could remain with fresh water.

Changing fresh water into unhealthy nuclear water, when there is a harmless location it could be moved to, while resident owners were being lied to about what might be built in their backyard seems like a situation that should be changed to me. It should also seem like a situation that needs to be changed to others too.

At the end of the day, Hydro One should build a power plant in Pickering not here.

Sincerely,



**Cited:**

**1. Durhamregion.com**

**2. Durhamregion.com**

December 3, 2012

Re: Clarington Transmission Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To whom it may concern,

All around the world, people are cutting down rainforests. This is a huge problem, considering the fact that the trees in the rainforests supply most of the oxygen so that we can breathe. But no matter how many people who don't like it, no matter how many trees they take down, there are some people who just keep doing it, and thinking that money is more important than the air we breathe. Well, I think that the Oak Ridges Moraine is like the rainforests, and the oxygen from the trees in the rainforests is like our precious ground water. No matter how many people dislike it, Hydro One just doesn't seem to listen. My name is Olivia Hofmann and here are the reasons why I think we should preserve the Moraine.

First of all, building a hydro station would upset the local groundwater<sup>1</sup>. Did you know that Hydro One would use the same groundwater as all of the houses around the Moraine that use well water? That means that if the hydro station were to pollute the groundwater, we would not be able to drink from it because it would be contaminated. Residents say that they are already digging holes 40 feet deep and six feet in diameter. Think about how much damage will be done not only to the ground water, but to the wildlife as well. People's lives would be affected, and Hydro One's transmission station would be to blame. Secondly, they will not just pollute the water. Noise pollution would also be a major problem<sup>2</sup>. The hydro station would have lots of power lines, and power lines buzz. Can you imagine living right next to the hydro station and every morning waking up to the sound of buzzing? Well, I can't. But if I did live that way, I wouldn't like it, and I bet that other people would feel the same. Last but not least, there could be possible health complications if we continue with the building of the hydro station<sup>3</sup>. There have been higher rates of various diseases and birth defects to those who live closer to hydro stations appose to people who don't. Why risk it?

Now, you could argue that Hydro One has permission to build on the Moraine from the government. I will admit, it's true. But if the government gave Hydro One permission to build on the Moraine, then they could give anyone else permission too. So the whole Moraine would be covered and destroyed by not only the hydro station, but by other buildings and businesses as well. More homes might even have to be evacuated just because Hydro One built on the Moraine, and other companies felt the need to join them. It would also give everyone else a chance to complain about another thing, if the government did not let anyone else build on the Moraine.

In conclusion, I think that Hydro One definitely should not build on the Oak Ridges Moraine. It would upset the local ground water, there would be lots of noise pollution and it could be dangerous to our health. Thank you for taking the time to read this letter. Please consider what I have said and think about your final decision.

Sincerely, 

1= [www.oag-bvg.gc.ca](http://www.oag-bvg.gc.ca)

2=Mrs. Pellerin

3=[http://www.oxfordtimes.co.uk/news/9455846.Stop\\_the\\_whining\\_hydroelectric\\_generator\\_is\\_too\\_noisy/](http://www.oxfordtimes.co.uk/news/9455846.Stop_the_whining_hydroelectric_generator_is_too_noisy/)

Monday, December 3rd, 2012

Re: Clarington Transformer Station

Hydro one  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To Whom It May Concern:

Hi my name is [REDACTED] and I am a 13 year old student, and I am writing this letter to talk about the big argument which is should hydro one build a Hydro Station. So what do you think? Now you may be asking who cares or what side is the correct side but my opinion I pick the side that is they should not because they want to build it on the Oak Ridge's Moraine. And that's a wetland were wildlife is so it will be taking up space in their natural habitat

These are some of my reasons about why hydro one should not build a hydro station.

My first reason is because there will be lots of noise pollution and that will disturb things around it.<sup>1</sup>

My other reason is because is that if new born lives near the hydro station he can be born with Down syndrome or even cancer? I.

My last reason is that if hydro one builds there hydro station they will have to dig underground and digging underground will upset local aquifers nearby 2.

And another reason is because that if they build on the oak ridge's marine everybody else wills thinks that they can to many companies have tried what's the acceptance here.3.

My last reason is if there is a hydro station it will take up space in the Oak Ridge's moraine.

So these five reasons should change your mind because it definitely changed the way I thought about this argument. And that is why I said no so what do you say?

1. <http://www.greenlivingonline.com/article/ask-eco-geek-does-living-near-power-lines-cause-health-problems>
2. [http://en.wikipedia.org/wiki/Water\\_well](http://en.wikipedia.org/wiki/Water_well)
3. <http://ga.water.usgs.gov/edu/earthgw-aquifer.html>



November 30<sup>th</sup>, 2012

Yu-Sang-Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

To whom it may concern:

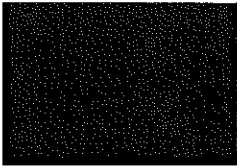
RE: Clarington transformer station

I am a resident in the area to be affected by the transformer station. We are very concerned about mineral oil leaking out and contaminating our well. We are concerned about our property values falling and the fact that we will have no resale value.

We would ask that a Level 2 environmental assessment be conducted to address these issues.



Friday November 30, 2012



Re: Clarington Transformer Station

Hydro One  
483 Bay Street North Tower  
15<sup>th</sup> Floor Reception  
Toronto, Ontario  
M5G 2P5

To whom it may concern:

Would you want a deadly power plant in your backyard? Then why would you put one in someone's protected backyard.

The Oak Ridges Moraine is protected under the "Oak Ridges Moraine Protection Act" established in 2001. The municipal government said "the Oak Ridges Moraine Protection Act is key to a smart growth"<sup>1</sup>. No one should be allowed to build on protected land especially when other land is available.

No one was allowed to build on the moraine until now, but some of the residents own large amounts of land and they could have sold it to developers and made millions. Why should one company be excluded from the rules? It's like saying its ok to rob a bank if you're a large company because the laws don't apply to you.

Hydro one has said "we set environmental objectives"<sup>2</sup> and that they are "taking care of the environment"<sup>3</sup> yet they are building on environmentally sensitive land. It makes me think what else are they hiding?

I know Durham region is excited about all the jobs it will bring but Mother Nature doesn't care about jobs.

If we build this plant just think what if in the future a new energy source is invented and all that precious land and water is ruined, what will we do then?

Sincerely



1. <http://www.mah.gov.on.ca/Page1707.asp>

2. [http://www.hydroone.com/OurCommitment/Documents/HydroOne\\_CSR\\_Highlights\\_2010.pdf](http://www.hydroone.com/OurCommitment/Documents/HydroOne_CSR_Highlights_2010.pdf)

3. [http://www.hydroone.com/OurCommitment/Documents/HydroOne\\_CSR\\_Highlights\\_2010.pdf](http://www.hydroone.com/OurCommitment/Documents/HydroOne_CSR_Highlights_2010.pdf)

November 30<sup>th</sup>, 2012

Yu-Sang-Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5

Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario M4V 1P5

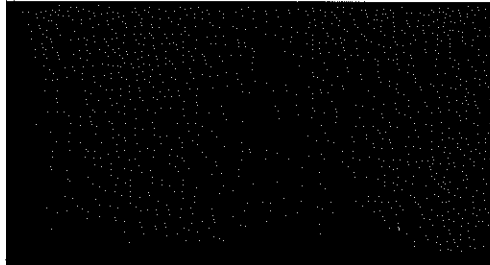
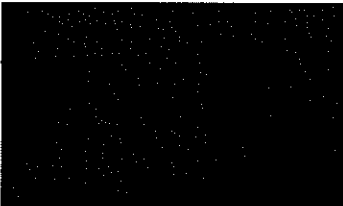
To whom it may concern:

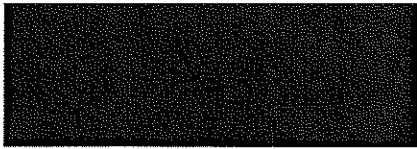
RE: Clarington transformer station

We are asking for a level 2 environmental assessment on the Clarington transformer station.

We are very concerned about the damage to the moraine, the possibility of water contamination and the threat to wildlife and loss of habitat.

Sincerely






November 25<sup>th</sup>, 2012


Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, Ontario M5G 2P5

To Whom It May Concern:

Re: Clarington transformer station  
Part 11 Order Request/Class Environmental Assessment

We believe that a transformer station is not required at this time and that Hydro One is blatantly wasting tax payers money. Hydro One refuses to admit that this substation will drastically hurt property values, most likely contaminate the water table and will become a white elephant as it in no way creates power. For these reasons along with the threat to wildlife, we would like to see a full environmental impact statement and hope that more intelligent minds prevail.

I reside on 

 Although my property is in your site plan, at the meetings it and the vacant land beside me had no addresses nor were the wells shown. I have a forever easement on my well, on the neighbouring property. We run a boarding stable and give riding lessons. The nature of your sub-station will make it next to impossible for me to conduct business. Horses are upset easily by vibration, and the amount of noise and construction can make giving lessons hazardous. When the helicopters land men on the towers for maintenance, I have no recourse but to cancel lessons those days, as the horses freak out from voices and noise that they cannot identify. We use approximately 350 gallons of water per day and should our well be disturbed and or disrupted or polluted by your transformer station we would be in a terrible mess, we could not afford to buy that much water or wait for Hydro to recognize or let alone deal with the situation.

The property east of me has a creek and wetlands that house my well, we have never run out of water or had any problems to date. The 407 looked to come thru my property and the property beside me, after an environmental assessment the land was considered sensitive with endangered flora and fauna. Hydro One has claimed that there is no danger to wildlife and no endangered species. I am no expert but on my property alone we have monarch butterflies and milkweed their food of choice, the Ont govt considers them of special concern. We have a minimum of 10 pair of breeding barn swallows that

the Ont govt considers threatened. We see Bobolinks regularly in our back fields, these birds are on the endangered list. To top it off we have a small blue/beige snake that was the reason for the 407, leaving these properties alone. Milksnakes are protected under the Ontario Endangered Species Act of 2007 and special concern under The Federal Species at Risk Act. These snakes are protected under the Ont Fish and Wildlife Conservation Act.

It is a sad fact that the government would protect the moraine from the people who own and love it, while allowing a corporation that has proved time and time again, that it is not environmentally friendly or responsible the opportunity to pollute miles of fresh water and farmland. There will come a day when clean water will be of more value than gold, oil and riches and we will have to explain to generations to come that the selfishness, lack of forethought and greed have destroyed our environment, when common sense, planning and honesty could have made all the difference.

I would like to point out that Hydro One misled residents with the small Enfield Station plan and that this new plan was never registered with Claringtons Official Plan. If this is how Hydro One conducts business, one cannot be surprised that residents would be sceptical when Hydro One promises to look after any situation that may arise from becoming our "good neighbour" as you put it in our meetings.

Sincerely

[Redacted signature block]

cc. Ministry of the Environment

[Redacted distribution list]



[REDACTED]

---

**From:** [REDACTED]  
**To:** [REDACTED]  
**Sent:** Sunday, October 28, 2012 01:15 PM  
**Subject:** hydro proposal  
[REDACTED]

Please add my name to those opposed to Hydro's plan to push through a major development without providing a proper environmental assessment... a development that clearly will have a detrimental effect on the surrounding environment.

Today our horses graze peacefully on the pasture mere seconds south of the targeted site. The area is also home to a vast assortment of wildlife including small herds of white tail deer. And then there is the water issue... what would this do to the water?

[REDACTED]

28/10/2012

## CITIZEN IMPACT LETTER

---

*To Premier Dalton McGuinty,*

*My husband is one of the hardest working men I know. He built our home from scratch.*

*He searched and surveyed a piece of property and found a 10 acre parcel on the beautiful Oak Ridges Moraine to build a log house. It was just a field at first, and he built our home with blood, sweat and tears. He situated our house on the top of a hill so we could enjoy the panoramic view of the country. It was just far enough out of town to get away from the hustle and bustle, where he could find peace, some solstice, a place of tranquility, a place of rest, surrounded by the beauty of nature and quiet. A so called "escape" from his stressful job. It was perfect, it was safe.*

*We built this home to raise our family. It has also become a safe haven for our grandchildren when they come to visit. A place of retreat from the urban sprawl and to connect with nature. Everyone who comes to visit loves to sit on our deck and take it all in. It's beautiful and we love our home.*

*Thankfully the Oak Ridges Moraine is protected and is sacred. It is identified as an environmentally sensitive land. It provides safe clean water to over a quarter million people. It is a natural safe habitat for a multitude of species of wildlife.*

*I feed the birds, many birds. I have photos of over 35 different species feeding at my feeders. I have a love for nature. It needs to be protected from humans, sad to say.*

*I have walked into the back field to a clustered tree and air full of Monarch butterflies, hundreds if not thousands of them! Words cannot describe the beauty, or how the sight of it impacts your soul. I have watched a coyote chasing deers in the back field. I have seen a mother deer with her fawn lying in the tall grasses. American Woodcocks in the low lying valley, Bobolinks singing in the spring and hawks swooping down for their prey. These are things I have seen with my own eyes and I would love for you to see them too!*

*I believe that this connection with nature is what keeps one healthy. People don't realize how the body and soul connect with nature. It gives you balance, it helps keep your conscience whole and clear.*

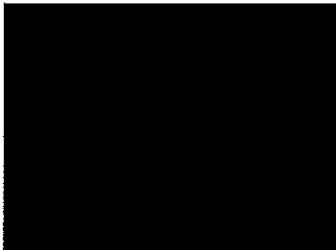
*Unfortunately there are people with no regard, no conscience, no integrity. People who are greedy, who only think of profit and gain. Who do not think of future generations, they only live for the now. These power hungry corporations think they can disrupt and destroy what most people find sacred and worth protecting. This land that is identified as environmentally sensitive. This land that is at the mercy of humans who have no concern of the future effects when it is tampered with by greedy men.*

*I cannot tell you enough the agony and stress the thought of losing our protected environment has caused. The worry and concern of having our water potentially contaminated and the loss of wildlife is heart breaking and grieves us constantly.*

*You have alternative sites. Do not waste our tax dollars destroying and leveling off this protected land! If I had enough money I would give it to you! There is clearly more accommodating sites that would be more feasible and practicable. These alternative sites have not been seriously considered in the environmental assessment process.*

*The Oak Ridges Moraine is an environmentally priceless piece of land that is being protected. I beg you please, please do not disturb and destroy this precious, priceless piece of the Oak Ridges Moraine. Please have some integrity and show it the respect it deserves.*

*Sincerely,*



Dec. 12, 2012

DEAR: Yu-Saw Ong

RE: Draft Environmental Assessment of Clairington  
Transformer Station:

I have lived at this address for 30 yrs now & I'm deeply upset that Hydro One is going to build a "huge" transformer station right behind my 10 acre agriculture farm.

I have a 55' dug well that has serviced the family home & all the farm animals without any problems at all. Hydro One has "NOT" located my well at the above address on their maps that shows wells on their maps. I understand there was a TOXIC-spill at Cherrywood. Such a spill on the Oak Ridges Moraine & my property would contaminate my well, harming wild life, human life & agricultural life & maybe crops, hay fields etc.

As you are very much aware my (above) property is very close to this massive monster. I'm not happy about the possibility of my health, Real Estate Value, no drinking water at all.

I am requesting a PART II bump-up.

I have attended the Hydro One meetings & think you should select a site not close to town.

Yours truly

Dec 7/2012

Attention: Ministry of Environment

I am writing today to ask for your attention on a matter concerning the Hydro One Transformer Plant coming to Clearington.

This is our families story.

My husband and I worked for years.

Raising three daughters, one granddaughter named 28 years. His family are the [redacted] who settled in Entfelds Area in the 40's.

Mother, Father 12 Kids. They all grew up and bought farms all around keeping close to the roots of their heritage. My husband always wanting the same. On Aug 19 2011 our dream came true 2 acres and a beautiful farm home

Views that are only seen in paintings.  
Our own piece of paradise. This was  
what is called the Canadian Dream. Work  
hard do the right thing and God will  
bless you with his blessings and he did.  
Our view out the window is his fathers  
farm of 55 years. Our view out the bay  
of forest and corn fields. Who could ask  
for anything else. Not us we were so  
at peace. Then the next spring  
May 2012 I got the news. Life is now  
going to change. Hydro is building a  
Mega Transformer, cutting down the forest  
and taking away what we thought was  
our Greenbelt. Oak Ridges Moraine Our  
hearts sank, despair took over, anxiety,  
depression, disappointment, and why?

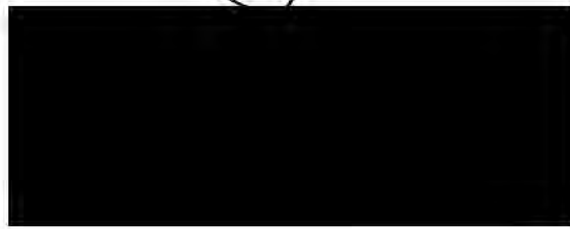
I'm not an expert on any oil spills, radiation, or possible soil contamination. My expertise is in caring about the land we have and our community.

The beauty of this area, <sup>this ~~that~~</sup> is why we are also fighting. To keep it in its form is my only interest. To love where you live is every Canadian's right. To save something for the next generation is the only responsible way to live. What will the future become, big box stores, subdivisions. Yes I know it will change it always does. The Oak Ridges Moraine was introduced to save the beauty of the land. The residents did just that. Why now destroy this area for something that is unnecessary. Please consider a new location. We beg you please. Please be our David and bring down Goliath

We are told by the higher authorities  
other locations are possible that won't  
take away from what the rest of the  
world also calls Paradise.

Please Stop this Build of 5 Transformers  
IN the Oak Ridges Moraine.

Thank You





**Hydro One Networks Inc.**  
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Environmental Services & Approvals  
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Toronto Ontario M5G 2P5  
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Email: Community.Relations@HydroOne.com



**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 11, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter cites concerns about the impacts of the proposed station on the natural environment. With more than 280 transformer stations in Ontario, our company has a strong track record of environmental compliance and stewardship, and is committed to the completion of a comprehensive environmental assessment (EA) and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed MNR protocols. Hydro One submits all assessments or inventories to the appropriate review agencies to ensure their interests and recommendations have been included, as well as to confirm that we have complied with all of their requirements. Depending upon the nature of the resource and the potential effect, Hydro One works closely with the respective agencies to undertake appropriate remedial measures and post-construction monitoring. More details on Hydro One's efforts on the natural environment are located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a 'no net loss' objective to terrestrial and aquatic habitat and, where possible, we try to achieve a 'net gain'. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To confirm that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

You also noted that you did not receive notification from Hydro One about the project. Hydro One provided hand-delivered notices to your mailbox regarding the project on the following dates:

- May 3, 2012
- August 29, 2012
- November 1, 2012
- November 15, 2012

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

Hydro One's practice is to pay compensation only where new or additional land rights are required to build its transmission station projects. No additional property rights are required for Clarington TS with the exception of access rights into the site. This is consistent with the practice used by similar industries such as natural gas pipelines and major transportation routes (e.g., highways).

In your letter, you cite concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Finally, you comment on public safety and busy roadways during the construction of the project. Traffic disruptions at the construction entry/exit location may occur during construction. Hydro One will develop a traffic management plan with the Municipality of Clarington and the City of Oshawa, as well as monitor and respond to any resident and motorist complaints. To minimize disruption and/or delays to local traffic and emergency public safety services, advance notice will be provided to municipal emergency response units. Where appropriate, traffic control officers will be assigned to assist construction vehicle entry and exit. Hydro One will make best efforts to schedule construction activities in order to minimize adverse effects on local traffic. More details on Hydro One's efforts regarding public safety and traffic control are located in **Section 7.3.1** of the draft ESR.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2103

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you note concerns regarding alternate site locations for this project. During the course of the Class Environmental Assessment (EA) process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. This was explained during the consultation process, at meetings and information centres as well as in the draft ESR.

Other sites were proposed by the Enniskillen Environmental Association (EEA): Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and "Seaton" lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

You express concerns about potential chemical accidents resulting from the proposed station. Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture and store the oil in precast concrete holding tanks in the event of oil release from a transformer. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained more than one hundred such approvals demonstrating that effects can be readily managed through conventional controls. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

You outline concerns about changes to your property value as a result of this project. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

Your letter expresses concerns about the impacts of the proposed station on wildlife in the area. Wildlife surveys were conducted for the project area, the results of which are located in **Appendix C** of the draft

ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot onsite is considered significant, our investigation found that, other than size, no features that would normally support “significance” were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3**, in the Significant Woodlands subsection, approximately 1.5 hectares of forest could be removed to accommodate the proposed station. Hydro One is committed to a 2:1 replacement of vegetation loss and has designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration planting plan will be fully developed in discussion with CLOCA, the Municipality of Clarington, Ministry of Natural Resources (MNR) and any other interested parties.

Concerns regarding species at risk were also addressed in your letter. A search of the MNR Natural Heritage Information Centre database indicated that no species at risk have been recorded since 1989 within the project area. Hydro One has also undertaken a wildlife species survey for the project area.

According to MNR, butternut, bobolink and eastern meadowlark were identified prior to 1989, and may be found in the project area given that this is within their natural range. As described in **Section 3.1.6** of the draft ESR, 52 bird species, one of which is the barn swallow, were identified during breeding bird surveys. Results of the survey are presented in **Table C-6** of **Appendix C**. Barn swallow favour artificial structures (i.e., barns, bridges, etc.) for nesting and roosting of which none are present on the project site and/or being affected by the project.

As described in **Section 3.1.6**, bobolink and eastern meadowlark are also native to this area and are both designated as threatened federally (Committee on the Status of Endangered Wildlife in Canada, 2012) and provincially (MNR, 2009). Bobolink is a grassland species which nests primarily in forage crops with a mixture of grasses and broadleaf forbs. Eastern meadowlark is a ground-nesting species which prefers habitats modified by humans, such as hayfields, meadows, pastures and grasslands. Surveys conducted in spring 2012 found that the agricultural fields within the project area, which consisted entirely of row crops (i.e., corn and soybeans), supported neither bird species and in both cases did not provide the required habitat type.

Forty-six butternut trees were identified during the field surveys. Based upon the butternut health assessment which was undertaken and validated with the MNR, 36 were considered retainable. The reconfiguration of the 230 kilovolt (kV) lines will likely result in the removal of three retainable butternut. Hydro One will be applying to the MNR for the approval to remove these trees. Associated with this removal will be a replacement planting of at least 30 butternut, which is more than the number required in the approval under Section 17c of the *Endangered Species Act*. Also, associated with this planting will be an equal number of site-compatible indigenous tree species. More information on the potential environmental effects and the proposed mitigation associated with the natural environment can be found in **Section 7.2** of the draft ESR.

Your letter also shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements as outlined in Section 41 of the ORMCP will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)



Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian McCormick', with a stylized flourish at the end.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you express concern about the impacts of the proposed station on the natural environment. With more than 280 transformer stations in Ontario, Hydro One has a strong track record of environmental compliance and stewardship, and is committed to the completion of a comprehensive environmental assessment (EA) and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed Ministry of Natural Resources protocols. Hydro One submits all assessments or inventories to the appropriate review agencies to ensure their interests and recommendations have been included, as well as to confirm that we have complied with all of their requirements. Depending upon the nature of the resource and the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring. More details on Hydro One's efforts on the natural environment are located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a 'no net loss' objective to terrestrial and aquatic habitat and, where possible, we try to achieve a 'net gain'. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To confirm that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2**, in the hydrology subsection, discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter expresses concerns regarding equipment failures and the potential discharge of mineral oil from on-site transformers. Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture and store the oil in precast concrete holding tanks in the event of oil release from a transformer. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance. All of Hydro One's stations include an Emergency Response Plan which outlines an emergency spill containment procedure. The station will also be equipped with spill cleanup and response equipment.

The station containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred such approvals demonstrating that effects can be readily managed through conventional controls. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

You note that alternative site locations may be more appropriate for this station. During the course of the Class EA process, no other alternative was found to be reasonable from a technical and economic

viewpoint. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale for the preferred station location.

Finally, you express concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and that there are no other reasonable alternatives (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)

6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013



**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [Redacted]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on

Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you question the decision to place the station at the Clarington site. During the course of the Class Environmental Assessment (EA) process, no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives and based on knowledge of the project area and other factors. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

Your letter also notes that “the Clarington site would employ more Hydro One personnel and for a longer period of time than the other sites”. The proposed Clarington TS will be an unmanned station and it will not include an office or work station. After construction, Hydro One personnel will occasionally access the site for maintenance purposes, but constructing the station will not result in new full-time on-site employees.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian McCormick', with a stylized flourish at the end.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE



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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013



**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear 

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you note that a well, which supplies water to your barn, was not located on **Figure 3-9** "Well Locations" within the draft ESR. The well locations provided on **Figure 3-9** on page 42 of the draft ESR were obtained from the Ministry of the Environment (MOE) well records. These records are submitted to the MOE when a new well is constructed or an existing well is being altered or decommissioned. Hydro One understands that the records may not account for all of the nearby wells as they may have been installed prior to the required submission of well records.

You also note concerns about your water supply and indicate that construction may interfere with your local water source. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the

province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. To ensure groundwater depth and quality, Hydro One has installed monitoring wells onsite that will be monitored regularly.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

In regards to your comments concerning Hydro One's Cherrywood TS and oil spills, as a result of the event at Cherrywood TS Hydro One has improved its transformer spill management systems. Improvements include a new containment design that has eliminated mechanical and electrical components so that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The frequency of system inspections has increased and operations manuals have been improved. The spill containment system that would be installed at Clarington TS is reliable and secure.

You also note concerns about construction noise in regards to your horses. Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One and its contractor will comply with the Municipality of Clarington Noise By-Law. Hydro One will follow any sound emission standards for construction equipment that are defined by the MOE. These guidelines can be found in the NPC (Noise Pollution Control)-115 publications, listed in the MOE (1978) Model Municipal Noise Control By-Law. Refer to **Section 7.1.1** of the draft ESR for more information

In your letter, you also express concerns about dust posing as a health hazard. Hydro One implements dust control measures at all of our construction sites. These measures are directed not only to onsite activities but also construction vehicles and the surrounding road system. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

Finally, you mention the difficulty in potentially marketing your property during the construction phase. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 20, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expressed concerns about the proposed station's potential effects on health. Clarington TS will not result in an increase in Electric and Magnetic Fields (EMF). Any EMF that exist at the site are a result of the existing 230 kilovolt (kV) and 500 kV transmission lines that are already present on site. EMF are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations and transmission and distribution lines. For more than 30 years, research studies have examined questions about EMF and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMF cause or contribute to adverse health effects.

Hydro One looks to Health Canada for guidance on EMF issues and has enclosed its Frequently Asked Questions on this matter in **Appendix E** in the draft ESR.

In regards to your concerns about stray voltage, stray voltage is associated with grounding issues on low-voltage distribution lines. The power lines associated with Clarington TS are high voltage (230 kV and 500 kV) and we do not expect stray voltage as a result of the station.

Information on stray voltage is available on the Hydro One website <http://www.hydroone.com>. In general, varying amounts of low-level voltage may exist between the earth and electrically-grounded farm equipment, such as metal stabling, feeders, or milk pipelines. Usually, these voltage levels present no harm to animals. However, if an animal touches a grounded metal object where these low voltages are found, a small electric current may pass through the animal. The voltage that causes this small current is known as “animal contact voltage,” “stray voltage” or “tingle voltage.” Stray voltage problems can be corrected.

Associated with your health concerns, you discussed the dust and debris related with construction projects, and the potential effects on your breathing.

Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One implements dust control measures on all of our construction sites. These measures are directed not only to on-site activities but also construction vehicles and the surrounding road system. Further, Hydro One has waste management policies and procedures that govern the management of all wastes. Debris or any other type of waste is fully managed and controlled, following relevant legislative requirements. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

In your letter, you note concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 m) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conversation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the Province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act* (EPA). The drainage design of the station will ensure that the pre and post construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following sections of the draft ESR. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With respects to your questions about the station’s proposed location, during the course of the Class EA process, no other alternative was found to be reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives.

Hydro One investigated other sites proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. From a technical, timing and cost perspective, these sites were not considered

viable options. **Section 4.6.2** of the draft ESR provides a detailed assessment of these sites. **Section 5.1** provides additional information on rationale of the preferred station location.

Your letter expressed concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian McCormick', with a stylized, circular flourish at the end.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

Your letter notes concerns about the potential health and safety hazards associated with this proposed project. In regards to safety, perimeter fencing will enclose the station and will be maintained to prevent public access to the transformer station.

In your letter, you outline concerns regarding noise during construction and operation. Hydro One recognizes that construction noise can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One and its contractor will comply with the Municipality of Clarington

Noise By-Law. Hydro One will follow any sound emission standards for construction equipment that are defined by the Ministry of the Environment (MOE). These guidelines can be found in the NPC (Noise Pollution Control)-115 publication, listed in the MOE (1978) Model Municipal Noise Control By-Law. Refer to **Section 7.1.1** of the draft ESR.

As outlined in **Section 7.1.1** of the draft ESR, transformers will produce a humming sound when energized and are equipped with cooling fans which contribute sound when operated; however, noise levels will be below the applicable MOE criteria. As indicated in **Section 1.5.2**, Hydro One will be applying for an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)* for the installation of the transformers. The ECA application will include the appropriate testing and modeling to ensure that the final operation of the site meets the applicable MOE sound level criteria at the receptors as per MOE NPC-205 & NPC-232.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater and potential contamination. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not located in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will also be subject to an ECA under the *EPA*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

In your letter, you express concerns about the decision to locate the proposed station on the Oak Ridges Moraine. Hydro One's transmission projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.



Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements as outlined in Section 41 in the ORMCP will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downwards and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to requirements for infrastructure/utility as set out under Section 41 of the ORMCP.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'B. McCormick', with a stylized flourish at the end.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 14, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

You note visual concerns in your letter. I understand that Hydro One's Landscape Architect has taken photos of your property, and is working to develop a vegetative restoration and screening plan. Although vegetation will not screen the station entirely, our intent is to mitigate as much as possible.

In your letter you note the proposed station may result in changes to the resale value of your property. Hydro One owns and operates transformer stations across the province, in both urban and rural areas. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

You note concerns about the effects of construction, specifically concerns about the "noise, filth and activity" during construction.

Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

In regards to your comment about potential adverse health effects, Clarington TS will not result in an increase in Electric and Magnetic Fields (EMF). Any EMF that exist at the site are a result of the existing 230 kilovolt (kV) and 500 kV transmission lines that already exist on the property. EMF are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations and transmission and distribution lines. For more than 30 years, research studies have examined questions about EMF and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMF cause or contribute to adverse health effects.

Hydro One and the Municipality of Clarington entered into discussions regarding Clarington TS in April 2012. The proposed site's land designation is "utility" and transmission facilities are of permitted use under the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation), the Regional Municipality of Durham Official Plan (2008), the Oak Ridges Moraine Conservation Plan (2002), and the Greenbelt Plan (2005).

Following recommendations from the MOE that came out of the public hearing process ("Report of the Solandt Commission", 1975), Ontario Hydro received approval to expropriate this property in 1978. The short term plan was to build new 500 kV lines, and over the longer term, build a future transformer station to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that "the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities." This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirements, is located where the 500 kV and 230 kV lines meet and it is already owned by Hydro One.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manger, Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on

Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outline in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You also note concerns about the proposed project’s timelines. The Class Environmental Assessment (EA) process is legislated by the Ministry of the Environment (MOE) and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner. The Clarington TS Class EA is undertaken following the requirements set out in the Ontario Hydro (1992) Class EA for Minor Transmission Facilities, approved by the MOE under the *EA Act*.

Following the direction from Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since this time, Hydro One has conducted a Class EA which has included rigorous field studies and testing, as well as extensive consultation with the community. Hydro One’s project team is confident that we have dedicated the appropriate resources, research and time to satisfy the requirements set out by

the Class EA process. In addition, we have consulted extensively with the community and this consultation has included:

- Initial Notification and Final Notification of the project
- Two Public Information Centres (PIC)
- Community Information Meeting
- Notification and consultation via public notices, letters, emails, telephone and meetings
- Project website
- Dedicated project contact person
- Draft ESR Review Period

More information on the consultation steps throughout the project is located in **Section 4.0** of the draft ESR.

Your letter cites concerns regarding equipment failures and the potential discharge of mineral oil from on-site transformers. Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture and store the oil in precast concrete holding tanks in the event of oil release from a transformer. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance.

The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred such approvals demonstrating that effects can be readily managed through conventional controls.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

As noted, the drainage design of the station will be subject to an ECA under the *EPA*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Soil compaction is another concern you address in your letter, relating the soil of the site to further impacts on groundwater. The soil strength necessary to support the transformer is 150 Megapascal (MPa). Recent geotechnical investigations have shown the soil strength to vary from 225 MPa to 525 MPa, which is well above the requirement. The depth of the containment and pad for the transformer approximates 2.1 metres below ground surface. As noted in **Section 3.1.3** of the draft ESR, the surficial tills over the site are approximately 10 to 30 metres thick, as confirmed by water well records, geotechnical boreholes and the completed cross sections. Thus, the actual aquifer is substantially below the transformers. Consequently, the installation and weight of the transformers would neither compress the aquifer nor affect flow of water to the aquifer.

Your letter notes concern for potential species at risk. A search of the Ministry of Natural Resources (MNR) Natural Heritage Information Centre database indicated that no species at risk have been recorded since 1989 within the project area. Hydro One has also undertaken a wildlife species survey for the project area.

According to the MNR, butternut, bobolink and eastern meadowlark may be found in the project area given that this is within their natural range. As described in **Section 3.1.6** of the draft ESR, 52 bird species, one of which is the barn swallow was identified during breeding bird surveys. Results of the survey are presented in **Table C-6 of Appendix C**. Barn swallows favour artificial structures (i.e., barns, bridges, etc.) for nesting and roosting of which none are present on the project site and/or being affected by the project.

As described in **Section 3.1.6**, bobolink and eastern meadowlark are also native to this area and are both designated as threatened federally (Committee on the Status of Endangered Wildlife in Canada, 2012) and provincially (MNR, 2009). Bobolink is a grassland species which nests primarily in forage crops with a mixture of grasses and broadleaf forbs. Eastern meadowlark is a ground-nesting species which prefers habitats modified by humans, such as hayfields, meadows, pastures and grasslands. Surveys conducted in spring 2012 found that the agricultural fields within the project area, which consisted entirely of row crops (i.e., corn and soybeans), supported neither bird species and in both cases did not provide the required habitat type.

Forty-six butternut were identified during the field surveys. Based upon the butternut health assessment which was undertaken and validated with the MNR; 36 were considered retainable. The reconfiguration of the 230 kilovolt (kV) lines will result in the removal of three retainable butternut. Hydro One will be applying to the MNR for the approval to remove these trees.

Hydro One is committed to enhancing the local biodiversity with a program that will see a minimum of 30 butternut planted which exceeds the actual amount required in the approval under Section 17c of the *Endangered Species Act*. Also, associated with this planting will be an equal number of other site-compatible



indigenous tree species. More information on the potential environmental effects and the proposed mitigation associated with the natural environment can be found in **Section 7.2** of the draft ESR.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you note concerns regarding project timelines and the level of assessment. The Class Environmental Assessment (EA) process is legislated by the Ministry of the Environment (MOE) and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an environmentally acceptable manner. The proposed project, a 500/230 kilovolt (kV) TS, falls within the criteria defined in the Class EA for Minor Transmission Facilities (Ontario Hydro, 1992), and has been undertaken following those requirements. The Ontario Hydro (1992) Class EA for Minor Transmission Facilities is approved by the MOE under the *EA Act*.

Following the direction of the Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since this time, Hydro One has conducted a Class EA which has included rigorous field studies and testing. Hydro One's project team is confident that we have dedicated the appropriate resources, research and time to satisfy the requirements set out by the Class EA process. In addition, we have consulted extensively with the community and this consultation has included:

- Initial Notification and Final Notification of the project

- Two Public Information Centres (PIC)
- Community Information Meeting
- Notification and consultation via public notices, letters, emails, telephone and meetings
- Project website
- Dedicated project contact person
- Draft ESR Review Period

More information on the consultation steps throughout the project is located in **Section 4.0** of the draft ESR.

Hydro One takes its commitment to the environment very seriously, and we appreciate your comments on environmental sensitivities at the site and construction on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)

3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 11, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One transmission projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use

schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and demonstrated the fact that there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements as outlined in Section 41 of the ORMCP will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
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7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

Your letter also notes concern for the creek systems and fisheries at the Clarington site. Central Lake Ontario Conservation Authority (CLOCA) has an agreement (Level 3) with the Department of Fisheries and Oceans (DFO) which allows them to review and assess all projects on behalf of DFO. This includes projects both within and adjacent to the on-site tributaries to the Harmony and Farewell Creeks, both of which are considered fish habitat. Creek crossings and other works within 30 metres of the creek will be reviewed and assessed accordingly. CLOCA will provide guidance to Hydro One to ensure that all aspects of the *Fisheries Act* are addressed appropriately for this project. Further, protection of the creek systems will take place during construction by installing silt fences to protect the stream channel and associated vegetation from mechanical effects and to ensure no sedimentation of the systems.

With respect to fish in the on-site streams, Hydro One supports the findings of CLOCA. In **Section 3.1.4** paragraph 2 of the draft ESR, Hydro One recognizes 33 species of native fish and five introduced species within the Harmony Creek and Farewell Creek watersheds. The report notes that no fish were observed or caught during our investigations because of insufficient water. These findings are not used to dismiss the streams as fish habitat but rather it is concluded that the creeks/streams are considered as fish habitat and that any work in or adjacent to the creeks will be done in consultation with CLOCA.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (CLOCA, 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2**, in the hydrology subsection, discusses the potential environmental effects associated with hydrology and the associated mitigation.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

As a result of the event at Cherrywood TS, Hydro One has improved its transformer spill management systems. Improvements include a new containment design that has eliminated mechanical and electrical components so that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The frequency of system inspections has increased and operations manuals have been improved. The spill containment system that would be installed at Clarington TS is reliable and secure.

With respect to your concerns about soil at the site, the soil strength necessary to support the transformer is 150 Megapascal (MPa). Recent geotechnical investigations have shown the soil strength to vary from 225 MPa to 525 MPa, which is well above the requirement. The depth of the containment and pad for the transformer is approximately 2.1 metres below ground surface. As noted in **Section 3.1.3** of the draft ESR, the surficial tills over the site are in the order of 10 to 30 metres thick as confirmed by water well records, geotechnical boreholes and the completed cross sections. Thus, the actual aquifer is substantially below the transformers. Consequently, the installation and weight of the transformers would neither compress the aquifer nor affect flow of water to the aquifer.

More information on the results of this study can be found in **Section 6** of the draft ESR. Your letter also questions why the proposed project is not subject to an Individual Environmental Assessment (EA). The Class EA process is described in **Section 1.5.1** and **Section 2** of the draft ESR and illustrated in **Figure 1-5**. The EA process is legislated by the Ministry of the Environment and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an



environmentally acceptable manner. The Clarington TS Class EA has been undertaken following the requirements set out in the Class EA, approved by the Ministry of the Environment under the *EA Act*.

Hydro One issued the draft ESR on November 15, 2012 for a 30-day public and stakeholder review period. In conformance with the Class EA process, there is not an additional review period for the final ESR.

The Class EA process is described in **Section 1.5.1** and **Section 2** of the draft ESR. The Class EA process is illustrated in **Figure 1-5**. Hydro One issued the draft ESR on November 15, 2012 for a 30-day public and stakeholder review period. The draft ESR was prepared in conformance with the Ontario Hydro (1992) Class EA, which was approved under the *EA Act*.

The reports, testing and environmental data listed in the draft ESR are considered final, and are not generally altered once the report is finalized. When the draft ESR is released for the review period, it is the version of the report where First Nations and Metis communities; federal, provincial and municipal agencies and officials; interest groups; affected property owners and the interested public review and provide comments on the undertaking. Once the review period is completed, Hydro One will consider the comments received and incorporate them into the ESR.

Hydro One is currently reviewing all of the Part II Order Requests and pending the Minister of the Environment's decision, Hydro One will then release the final ESR.

You also note concerns about the proposed project's timelines. The Class Environmental Assessment (EA) process is legislated by the Ministry of the Environment (MOE) and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner. The Clarington TS Class EA is undertaken following the requirements set out in the Ontario Hydro (1992) Class EA for Minor Transmission Facilities, approved by the MOE under the *EA Act*.

Following the direction from Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since this time, Hydro One has conducted a Class EA which has included rigorous field studies and testing, as well as extensive consultation with the community. Hydro One's project team is confident that we have dedicated the appropriate resources, research and time to satisfy the requirements set out by the Class EA process. In addition, we have consulted extensively with the community and this consultation has included:

- Initial Notification and Final Notification of the project
- Two Public Information Centres (PIC)
- Community Information Meeting
- Notification and consultation via public notices, letters, emails, telephone and meetings
- Project website
- Dedicated project contact person
- Draft ESR Review Period

The consultation that occurred throughout the project is located in **Section 4.0** of the draft ESR.

As mentioned, **Section 1.1** of the draft ESR outlines the Need of the Undertaking. The Clarington TS property was acquired through expropriation in 1978 for the purpose of installing a 500/230 kV transformer station. In 2007, the Ontario Power Authority Integrated Power System Plan (IPSP) indicated the purpose of the “Oshawa Area Transformer Station” project (now Clarington TS) “is to address the potential impact associated with the retirement or refurbishment of the Pickering B generating station. It also addresses potential regional supply needs and the long-term potential to incorporate new generation at Darlington.”

Your letter questions the need to consider an alternative site for the proposed station. During the course of the Class EA process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale for the preferred station location.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

Hydro One’s practice is to pay compensation only where new or additional land rights are required to build transmission station projects. No additional property rights are required for Clarington TS with the exception of access rights into the site. This is consistent with the practice used by similar industries, such as natural gas pipelines and major transportation routes (e.g., highways).

Your letter also cites concerns about the impacts of the proposed station on the natural environment. Hydro One is committed to protecting the environment. Hydro One has designed this proposed facility to make efficient use of resources. Following recommendations from the Ministry of Energy that came out of the public inquiry “Report of the Solandt Commission” in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that “the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.” This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirement, is located where the 500 kV lines and 230 kV lines meet, and it is owned by Hydro One.

Your letter expresses concerns about the impacts of the proposed station on wildlife in the area, specifically noting the impacts it may have on birds and fish. A search of the Ministry of Natural Resources (MNR) Natural Heritage Information Centre database indicated that no Species at Risk have been recorded since 1989 within the project area. Hydro One has also undertaken a wildlife species survey for the project area.

According to the MNR, butternut, bobolink and eastern meadowlark were identified prior to 1989, and may be found in the project area given that this is within their natural range. As described in **Section 3.1.6** of the draft ESR, 52 bird species, one of which is the barn swallow, were identified during breeding bird surveys. Results of the survey are presented in **Table C-6** of **Appendix C** in the draft ESR. Barn swallow favour artificial structures (i.e., barns, bridges, etc.) for nesting and roosting of which none are present on the project site and/or being affected by the project.

As described in **Section 3.1.6**, bobolink and eastern meadowlark are also native to this area and are both designated as threatened federally (Committee on the Status of Endangered Wildlife in Canada, 2012) and provincially (MNR, 2009). Bobolink is a grassland species which nests primarily in forage crops with a mixture of grasses and broadleaf forbs. Eastern meadowlark is a ground-nesting species which prefers habitats modified by humans, such as hayfields, meadows, pastures and grasslands. Surveys conducted in spring 2012 found that the agricultural fields within the project area, which consisted entirely of row crops (i.e., corn and soybeans), supported neither bird species and in both cases did not provide the required habitat type.

Forty-six (46) butternut trees were identified during the field surveys. Based upon the Butternut Health assessment which was undertaken and validated with the MNR, 36 were considered retainable. The reconfiguration of the 230 kV lines will result in the removal of three retainable butternut. Hydro One will be applying to the MNR for the approval to remove these trees. Associated with this removal will be a replacement planting of at least 30 butternut, which is more than the actual number required in the approval under Section 17c of the *Endangered Species Act*. Also associated with this planting will be an equal number of other site-compatible indigenous tree species. More information on the potential environmental effects and the proposed mitigation associated with the natural environment can be found in **Section 7.2** of the draft ESR.

Your letter expresses concerns about the impacts of the proposed station on wildlife in the area. Wildlife surveys were conducted for the project area, the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitat at the proposed Clarington site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot on site is considered significant, our investigation found that, other than size, no features that would normally support significance were present. Our investigation indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3**, in the Significant Woodlands subsection, approximately 1.5 hectares of forest may be removed to accommodate the station. Hydro One is committed to a 2:1 replacement of the vegetation loss and has designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration planting plan will be fully developed in consultation with CLOCA, the Municipality of Clarington, MNR and any other interested parties.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Brian McCormick', with a stylized, cursive style.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter notes concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use

schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and that there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**).
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to the requirements for infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you express concerns about the impacts of the proposed station on the creek systems. Central Lake Ontario Conservation Authority (CLOCA) has an agreement (Level 3) with the Department of Fisheries and Oceans (DFO) which allows them to review and assess all projects on behalf of DFO. This includes projects both within and adjacent to the on-site tributaries to Harmony and Farewell Creeks; both of which are considered fish habitat. Creek crossings and other works within 30 metres of the creek will be reviewed and assessed accordingly. CLOCA will provide guidance to Hydro One to ensure that all aspects of the *Fisheries Act* are addressed appropriately for this project. Further, protection of the creek systems will take place during construction by installing silt fences to protect the stream channel and associated vegetation from mechanical effects and to ensure no sedimentation of the systems. **Section 3.1.3** in the draft ESR discusses the hydrology and hydrogeology of the project area and **Section 7**, discusses the associated mitigation.

Your letter also expresses concerns for the natural environment of the area. With more than 280 transformer stations in Ontario, Hydro One has a strong track record of environmental compliance and stewardship, and is committed to the completion of a comprehensive environmental assessment (EA) and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed Ministry of Natural Resources (MNR) protocols. Hydro One ensures that all assessments or inventories are submitted to the relevant review agencies to ensure we have included their interests and recommendations, as well confirm we comply with all of their requirements. Depending upon the nature of the resource and the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring. More details on Hydro One's efforts on the natural environment are located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a 'no net loss' objective to terrestrial and aquatic habitat and, where possible, we try to achieve a 'net gain'. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To confirm that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

In your letter, you express concerns about the impacts of the proposed station on the groundwater in the area and the impacts on your well water. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (CLOCA, 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

You also express concern about the weight of the transformers with respects to groundwater. The soil strength necessary to support the transformer is 150 Megapascal (MPa). Recent geotechnical investigations have shown the soil strength to vary from 225 MPa to 525 MPa, which is well above the requirement. The depth of the containment and pad for the transformer is approximately 2.1 metres below ground surface. As

noted in **Section 3.1.3** of the draft ESR, the surficial tills over the site are in the order of 10 to 30 metres thick as confirmed by water well records, geotechnical boreholes and the completed cross sections. Thus, the actual aquifer is substantially below the transformers. Consequently, the installation and weight of the transformers would neither compress the aquifer nor affect flow of water to the aquifer.

Your letter also expresses concerns about soil and water contamination as a result of the project. Hydro One will be undertaking a number of measures to ensure that the integrity of the site's water and soil will be protected. As described in **Section 7** of the draft ESR, a project Environmental Specification will be prepared prior to construction which will outline Hydro One's approach to erosion, sediment control and stormwater management. These requirements will conform to the Greater Golden Horseshoe Area Conservation Authorities Erosion and Sedimentation Control Guideline for Urban Construction (2006).

Vehicle and equipment refuelling will be conducted in accordance with the *Technical Standards and Safety Act* (O. Reg. 217/01). Construction equipment maintenance, such as refuelling and lubrication, will take place in a designated area at least 120 metres away from a water body. Spill kits will be located in potential spill locations, such as these refuelling locations.

During construction, where feasible a 30-metre buffer using sediment and snow fencing will be established along woodlot and creek edges on the property where work is being done. Watercourse crossing permits will be applied for through CLOCA. Care will be taken during the use of these crossings to avoid sedimentation of the streams.

With respect to your concerns about the construction phase of the project, specifically noise, dust and increased traffic, Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One and its contractor will comply with the Municipality of Clarington Noise By-Law. Hydro One will follow any sound emission standards for construction equipment that are defined by the Ministry of Environment (MOE). These guidelines can be found in the NPC (Noise Pollution Control)-115 publication, listed in the MOE (1978) Model municipal Noise Control By-Law. Refer to **Section 7.1.1** of the draft ESR.

Traffic disruptions at the construction entry/exit location may occur during construction. Hydro One will develop a traffic management plan with the Municipality of Clarington and the City of Oshawa, as well as monitor and respond to any resident and motorist complaints. To minimize disruption and/or delays to local traffic and emergency public safety services, advance notice will be provided to municipal emergency response units. Where appropriate, traffic control officers will be assigned to assist construction vehicle entry and exit. Hydro One will make best efforts to schedule construction activities in order to minimize adverse effects on local traffic. More details on Hydro One's efforts regarding public safety and traffic control are located in **Section 7.3.1** of the draft ESR.

Your letter questions the impacts of the proposed station on property values in the surrounding area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.



With the above, we trust that your comments have been addressed. Please feel free to contact me or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Hydro One takes its commitment to the environment very seriously, and we appreciate your comments on environmental sensitivities at the site and construction on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan.

Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You raise concerns regarding the general natural environment in your letter. With more than 280 transformer stations in Ontario, Hydro One has a strong track record of environmental compliance and stewardship and is committed to the completion of a comprehensive environmental assessment (EA) and solid mitigation plan for potential environmental effects.

Our project team has completed a number of field studies evaluating habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed Ministry of Natural Resources (MNR) protocols. Hydro One ensures that all assessments or inventories are submitted to the relevant review agencies to ensure we have included their interests and recommendations, as well confirm we comply with all of their requirements. Depending upon the nature of the resource and

the effect, Hydro One will work with the respective agencies to undertake the appropriate remedial measures and post-construction monitoring. More details on Hydro One's efforts on the natural environment are located in **Section 3** of the draft ESR.

Our projects comply with all environmental requirements. Hydro One applies a 'no net loss' objective to terrestrial and aquatic habitat and, where possible, we try to achieve a 'net gain'. **Section 7** in the draft ESR describes the potential environmental effects for the proposed project and appropriate mitigation. To confirm that predictions of effects are accurate and mitigation measures are effective, an Environmental Specialist will be assigned to the project for the duration of construction to monitor construction activities and provide appropriate guidance.

Your letter questions the decision to build on this site. During the course of the Class EA process, no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives based on knowledge of the project area and other factors. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and "Seaton" lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

You also note concerns regarding groundwater and water quality in your letter. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated

mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

You note concerns regarding equipment failures and the potential discharge of mineral oil from on-site transformers. Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance.

Station containment and drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Your letter expresses concerns about the decision to locate the station on this site. Following recommendations from the Ministry of Energy that came out of the public inquiry "Report of the Solandt Commission" in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kilovolt (kV) lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that "the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities." This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirements, it is located where the 500 kV and 230 kV lines meet, and it is already owned by Hydro One.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

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Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

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In your letter, you note concerns about the natural environment. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on



Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you also express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. To ensure groundwater depth and quality, Hydro One has installed a monitoring well on site.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter also notes concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

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In your letter, you express concerns about the location of the proposed site on the Oak Ridges Moraine. Hydro One transmission projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on

Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
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8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to the requirements for infrastructure/utility as set out under Section 41 of the ORMCP.

The Class Environmental Assessment (EA) process is described in **Section 1.5.1** and **Section 2** of the draft ESR. The Class EA process is illustrated in **Figure 1-5**. Hydro One issued the draft ESR on November 15, 2012 for a 30-day public and stakeholder review period. The draft ESR was prepared in conformance with the Ontario Hydro (1992) Class EA for Minor Transmission Facilities, which was approved by the Ministry of the Environment (MOE) under the *EA Act*.

The reports, testing and environmental data listed in the draft ESR are considered final, and are not generally not altered once the report is finalized. When the draft ESR is released for the review period, it is the version of the report that First Nations and Métis communities; federal, provincial and municipal agencies and officials; interest groups; affected property owners and the interested public, review and provide comments on. Once the review period is complete, Hydro One will consider the comments received and incorporate them into the final ESR.

Your letter raises concerns about the lack of consideration for alternative site locations. During the course of the Class EA process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

You also note concerns about the proposed project’s timelines. The Class Environmental Assessment (EA) process is legislated by the Ministry of the Environment (MOE) and is an effective way of ensuring that transmission projects that have a predictable range of effects are planned and carried out in an environmentally-acceptable manner. The Clarington TS Class EA is undertaken following the requirements set out in the Ontario Hydro (1992) Class EA for Minor Transmission Facilities, approved by the MOE under the *EA Act*.

Following the direction from Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since this time, Hydro One has conducted a Class EA which has included rigorous field studies and testing, as well as extensive consultation with the community. Hydro One’s project team is confident that we have dedicated the appropriate resources, research and time to satisfy the requirements set out by the Class EA process. In addition, we have consulted extensively with the community and this consultation has included:

Community consultation has included:

- Initial Notification and Final Notification of the project
- Two Public Information Centres (PIC)
- Community Information Meeting
- Notification and consultation via public notices, letters, emails, telephone and meetings
- Project website
- Dedicated project contact person
- Draft ESR Review Period

More information on the consultation steps throughout the project is located in **Section 4.0** of the draft ESR.

Your letter also expresses concerns about this project as not being subject to an Individual EA. Your letter also notes concerns about the site selection process. Following recommendations from the Ministry of Energy that came out of the public inquiry “Report of the Solandt Commission” in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that “the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.” This property is the most logical and only viable location to accommodate the

proposed station because it meets the size requirements, is located where the 500 kV lines and 230 kV lines meet and it is owned by Hydro One.

With respect to your concerns regarding the validity of technical drawings in the draft ESR, according to standard practice, drawings used in the draft ESR do not require an Engineering Stamp. The drawings are for information purposes and are not used for construction.

Your letter expresses concerns regarding the site's hydrogeological features and incomplete studies around borehole testing. Hydro One has worked very closely with Central Lake Conservation Authority (CLOCA) and their technical experts throughout the EA process to address potential groundwater issues. As a result of our research and collaboration, we do not anticipate groundwater issues from this project.

Hydro One summarizes hydrology and groundwater results and other relevant information in the draft ESR to facilitate better understanding of the planned work associated with the station, its predicted effects and our proposed mitigation. Our assessment, as well as consultation with CLOCA in respect to hydrogeology and groundwater, can be found on pages 35-37 in **Section 3.1.3** (Hydrology and Hydrogeology) of the draft ESR.

You note concerns about conflicts of interest with this project. We are very confident that the project involves no conflict of interest. Unfortunately, you have provided insufficient information to comment further.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns regarding equipment failures and the potential impacts to the environment resulting from discharge of mineral insulating oil (MIO) from on-site transformers. Generally, transformer MIO poses minimal risk to human health and the environment. MIO contained in electrical equipment is a petroleum hydrocarbon in the same category of mineral oil products, such as oils used directly in food, food packaging and processing, cosmetics, and pharmaceuticals.

The chemical, physical and toxicological properties of MIO are very different from those of other petroleum hydrocarbons, such as gasoline, diesel and other motor and heating fuels. MIO has a low acute toxicity; low carcinogenic potential; low potential to produce toxic effects through absorption or deposition in the body; and a low potential to cause disease in comparison to these other liquids.<sup>1</sup>

MIO is not very mobile in soil and groundwater and is not likely to migrate through soil in the vapour phase.

<sup>1</sup>Source: Insulating Oil Characteristics – Volume 1 Characterization Results, Electrical Power Research Institute, TR-106898-V1 4168, 9087, Final Report, December 1996

Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture any oil released from transformers in precast concrete holding tanks. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and can be readily dispatched to the station in the event of an emergency, or for occasional maintenance. All of Hydro One's stations include an Emergency Response Plan which outlines procedures to be followed in the event of oil release from a transformer. The station will also be equipped with spill cleanup and response equipment.

The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred such approvals demonstrating that effects can be readily managed through conventional controls.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

As noted, the drainage design of the station will be subject to an ECA under the *EPA*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter questions why hazardous material suits are worn by Hydro One personnel when cleaning up oil spills, when Hydro One asserts that the transformer MIO is harmless. To our knowledge, any recent mineral oil releases from transformer stations have not warranted the use of hazardous material suits by cleanup crews.



With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

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Your letter raises concerns about the integrity of groundwater in the study area. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our

facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

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When Hydro One began the Class EA process for Enfield TS project, the need was to increase capacity to homes and businesses in the local area. After the economic downturn, this need was no longer a priority. At the time of the Enfield TS environmental assessment (EA) process, details surrounding the closure of Pickering NGS were not known and Hydro One had not received direction from the Ontario Power Authority to build a transformer station. Refer to **Section 1.1** in the draft ESR for the Need of the Undertaking.

Your letter also shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been

addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. The existing hydro transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
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Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater with specific effects on well water. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission

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With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian McCormick', is located below the text 'Sincerely,'.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

**Hydro One Networks Inc.**  
Engineering & Project Delivery  
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**Brian McCormick**  
**Environmental Planner, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns about the impacts of the proposed station on wildlife in the area, specifically noting the impacts it may have on birds and fish. Wildlife species surveys were conducted for the project area, results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot onsite is considered significant, our investigation found that, other than size, no features that would normally support "significance" were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3** of the draft ESR, in the Significant Woodlands subsection, approximately 1.5 hectares (ha) of forest would require removal to accommodate the station. In order to offset this loss,

Hydro One is committed to enhancing the site with a 2:1 vegetation replacement program and has already identified designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration plan will be fully developed in consultation with Central Lake Ontario Conservation Authority (CLOCA), the Municipality of Clarington and the Ministry of Natural Resources.

There are no fish or amphibian species at risk identified in the Harmony Creek and Farewell Creek tributaries associated with the Clarington TS project area. However, these tributaries contribute to seasonally direct fish habitat and are therefore defined as fish habitat by CLOCA. The potential changes to tributaries in the project area (i.e., installation of watercourse crossings) as a result of this project is not anticipated to affect fish communities downstream as flow through the culverts will be maintained in a similar pattern to the existing channel. Refer to **Section 7.2** of the draft ESR.

Your letter also shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One transmission infrastructure projects are designed to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)



2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You also outlined concerns about the potential impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (CLOCA, 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Finally, your letter note concerns about the impacts of the proposed station on streams and creek systems. CLOCA has an agreement (Level 3) with the Department of Fisheries and Oceans (DFO) which allows it to review and assess all projects on behalf of DFO. This includes projects both within and adjacent to the on-site tributaries to Harmony and Farewell Creek, both of which are considered fish habitat. Creek crossings and other works within 30 metres of the creek will be reviewed and assessed accordingly. CLOCA will provide guidance to Hydro One to ensure that all aspects of the *Fisheries Act* are addressed appropriately for

this project. Further, protection of the creek systems will take place during construction by installing silt fences to protect the stream channel and associated vegetation from mechanical effects and to ensure no sedimentation of the systems. **Section 3.1.3** in the draft ESR discusses the hydrology and hydrogeology of the project area and **Section 7**, discusses the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter you outline concerns about the loss of views related to the proposed station. Hydro One understands your concerns and is working to develop a vegetative restoration and screening plan. Although vegetation will not screen the station entirely, our intent is to mitigate as much as possible. Refer to **Section 7.3.3** of the draft ESR.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

In your letter you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following sections of the draft ESR. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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Brian McCormick  
Manager, Environmental Services & Approvals

March 8, 2013

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**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

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In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. The system is designed that in the event of a release, all oil will be captured and stored in precast concrete holding tanks.

Station containment and drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality. The local water table will not be polluted by the proposed Clarington TS.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brian McCormick', is positioned above the typed name.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013



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Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

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In your letter, you raise concerns about the impact of the proposed station on property values in the surrounding area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity, and will work with the community throughout this phase to ensure the impacts from construction are minimized.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager –Public Affairs, Hydro One Networks Inc.  
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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

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In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** explains the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter expresses concerns about the proposed station's potential effects on health. Clarington TS will not result in an increase in Electric and Magnetic Fields (EMF). There are existing EMF associated with the 230 kilovolt (kV) and 500 kV transmission lines that cross the property. EMF are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations and transmission and distribution lines. For more than 30 years, research studies have examined questions about EMF and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMF cause or contribute to adverse health effects. Hydro One looks to Health Canada for guidance on EMF issues and has enclosed its Frequently Asked Questions on this matter in the draft ESR.

Your letter also shares concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One projects are designed to respect the natural environment while ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

Your letter also expresses concerns regarding the ability of soil to support heavy equipment. The soil strength necessary to support the transformer is 150 Megapascal (MPa). Recent geotechnical investigations have shown the soil strength to vary from 225 MPa to 525 MPa, which is well above the requirement. The depth of the containment and pad for the transformer is approximately 2.1 metres below ground surface. As noted in **Section 3.1.3** of the draft ESR and mentioned previously, the surficial tills over the site are in the order of 10 to 30 metres thick as confirmed by water well records, geotechnical boreholes and the completed cross sections. Thus, the actual aquifer is substantially below the transformers. Consequently, the installation and weight of the transformers would neither compress the aquifer nor affect flow of water to the aquifer.

You also refer to the decision to locate the station at the Clarington site. During the course of the Class Environmental Assessment (EA) process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale for the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
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March 8, 2013



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The proposed project, as defined under the ORMCP is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirement as outlined in Section 41 in the ORMCP will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

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7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to requirements for infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter you request that Hydro One consider alternative site locations for this project. During the course of the Class Environmental Assessment (EA) process, no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives. Please refer to **Section 1.3** of the draft ESR.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

In your letter, you indicate that a new transformer station would impact your enjoyment and use of your property. Hydro One's Landscape Architect is developing a vegetative restoration and screening plan for the station. In your particular case, the majority of the station may not be visible from your property and will be screened by the woodlot on our site.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns regarding equipment failures and the potential discharge of mineral insulating oils from on-site transformers. Generally, transformer mineral insulating oil (MIO) poses minimal risk to human health and the environment. MIO contained in electrical equipment is a petroleum hydrocarbon in the same category of mineral oil products, such as oils used directly in food, food packaging and processing, cosmetics, and pharmaceuticals.

The chemical, physical and toxicological properties of MIO are very different from those of other petroleum hydrocarbons, such as gasoline, diesel and heating fuels. MIO has a low acute toxicity; low carcinogenic potential; low potential to produce toxic effects through absorption or deposition in the body; and a low potential to cause disease in comparison to these other liquids.<sup>1</sup>

MIO is not very mobile in soil and groundwater and is not likely to migrate through soil in the vapor phase.

<sup>1</sup>Source: Insulating Oil Characteristics – Volume 1 Characterization Results, Electric Power Research Institute, TR-106898-V1 4168, 9087, Final Report, December 1996



Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One's grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance. All of Hydro One's stations include an Emergency Response Plan which outlines procedures to be followed in the event of oil release from a transformer. The station will also be equipped with spill cleanup and response equipment.

The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred such approvals demonstrating that effects can be readily managed through conventional controls.

In your letter, you express concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

As noted, station drainage will be subject to an ECA under the *EPA*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and checked regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline

during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Clarington Transformer Station**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In regards to your comments about the proposed site being located on the Oak Ridges Moraine, Hydro One designs projects that respect the natural environment while ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downwards and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you note concerns about water contamination. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and monitored regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

You indicate that you have concerns about the effects on the local wildlife as a result of the station. Wildlife species surveys were conducted for the project area, the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot on site is considered significant, our investigation found that, other than size, no features that would normally support significance were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed under in **Section 3** of the draft ESR, in the Significant Woodlands subsection, approximately 1.5 hectares of forest would require removal to accommodate the station. In order to offset this loss, Hydro One is committed to enhancing the site with a 2:1 vegetation replacement program and has already identified designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration planting plan will be fully developed in discussion with CLOCA, the Municipality of Clarington, Ministry of Natural Resources and any other interested parties.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

You indicate in your letter that you have concerns about your property value. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

You also note concerns regarding the water supply and water quality in your area. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province

and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. To ensure groundwater depth and quality, Hydro One has installed monitoring wells on site which will be monitored regularly for water depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** explains the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2**, in the hydrology subsection, discusses the potential environmental effects associated with hydrology and the associated mitigation.

You indicate that wells located on and near your property were not included in our draft ESR. The well locations provided on **Figure 3-9** on page 42 of the draft ESR were obtained from the Ministry of the Environment (MOE) well records. These records are submitted to the MOE when a new well is constructed or an existing well is being altered or abandoned. Hydro One understands that the records may not account for all of the nearby wells as they may have been installed prior to the required submission of well records.

In your letter, you note concerns about the impacts of noise on your horses. Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project. Hydro One and our contractor will comply with the Municipality of Clarington Noise By-Law.

Hydro One will also follow MOE sound emission standards for construction equipment. These guidelines can be found in the NPC (Noise Pollution Control)-115 publication, listed in the MOE (1978) Model Municipal Noise Control By-Law. Refer to **Section 7.1.1** of the draft ESR. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

You note the presence of species at risk on your property including the monarch butterfly, bobolink and milksnake. Wildlife species surveys were conducted for the project area the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

The results of our field studies are provided in **Section 3** of the draft ESR. Although the woodlot on site is considered significant, our investigation found that, other than size, no features that would normally support the designation were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3** of the draft ESR, removal of approximately 1.5 hectares of forest is required to accommodate the station. In order to offset this loss, Hydro One is committed to enhancing the site with a 2:1 vegetation replacement program and has identified designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area by connecting with adjacent natural systems. The development of a restoration planting plan will be fully developed in consultation with CLOCA, the Municipality of Clarington and Ministry of Natural Resources (MNR).

A search of the MNR Natural Heritage Information Centre database indicated that no species at risk have been recorded since 1989 within the project area. Hydro One has undertaken a wildlife species survey for the project area. According to the MNR, butternut, bobolink and eastern meadowlark were identified prior to 1989, and may be found in the project area given that this is within their natural range. As described in **Section 3.1.6** of the draft ESR, 52 bird species, one of which is the barn swallow were identified during breeding bird surveys. Results of the survey are presented in **Table C-6** of **Appendix C** in the draft ESR. Barn swallow favour artificial structures (i.e., barns, bridges, etc.) for nesting and roosting of which none are present on the project site and/or being affected by the project.

As described in **Section 3.1.6**, bobolink and eastern meadowlark are also native to this area and are both designated as threatened federally (Committee on the Status of Endangered Wildlife in Canada, 2012) and provincially (MNR, 2009). Bobolink is a grassland species which nests primarily in forage crops with a mixture of grasses and broadleaf forbs. Eastern meadowlark is a ground-nesting species which prefers habitats modified by humans, such as hayfields, meadows, pastures and grasslands. Surveys conducted in spring 2012 found that the agricultural fields within the project area, which consisted entirely of row crops (i.e., corn and soybeans), supported neither bird species and in both cases did not provide the required habitat type.

Forty-six butternut were identified during the field surveys. Based upon the butternut health assessment which was undertaken and validated with the MNR, 36 were considered retainable. The reconfiguration of the 230 kilovolt lines will result in the removal of three retainable butternut. Hydro One will be applying to the MNR for the approval to remove these trees. Associated with this removal will be a replacement planting of at least 30 butternut, which is more than the actual amount required in the approval under Section 17c of the *Endangered Species Act*. Also associated with this planting will be an equal number of other site-compatible indigenous tree species. More information on the potential environmental effects and the proposed mitigation associated with the natural environment can be found in **Section 7.2** of the draft ESR.

In your letter, you indicate that you have concerns about the protection of the Oak Ridges Moraine. Hydro One designs projects to respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided and the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan.



Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements as outlined in Section 41 of the ORMCP will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You note in your letter that you feel Hydro One mislead the community during the Enfield TS Class Environmental Assessment (EA). The need for Enfield TS was to serve forecasted electricity distribution demand (load growth) in the area. Reduction in electricity demand caused by the 2008 economic downturn and other local factors led to the deferral of the Enfield TS to a future date. Please refer to **Section 1.1** in the draft ESR for information on the Need for the Undertaking.

As indicated previously, transmission facilities are permitted within the existing land use on the property and the property is currently designated as Utility use as identified on the Municipality of Clarington’s Official Plan (1996, 2012 Office Consolidation). Hydro One entered into consultations with the Municipality of Clarington in April 2012.

With the above, we trust that your comments have been addressed. Please feel free to contact me or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
Manager, Environmental Services & Approvals

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

You note concerns about wildlife in the vicinity of the station location. Wildlife species surveys were conducted for the project area, the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitat within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot on site is considered significant, our investigation found that, other than size, no features that would normally support the designation were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As indicated in **Section 3**, in the Significant Woodlands subsection, approximately 1.5 hectares of forest could be removed to accommodate the station. Hydro One is committed to a 2:1 replacement of the

vegetation cleared and has designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area by connecting with adjacent natural systems. The development of a restoration plan will be fully developed in consultation with Central Lake Ontario Conservation Authority (CLOCA), the Municipality of Clarington and Ministry of Natural Resources.

You also indicate that you have concerns about groundwater and local water supply. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability (CLOCA, 2011) to contamination from human and natural impact. Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Monitoring wells installed at the site will be maintained and checked regularly for groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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Email: Community.Relations@HydroOne.com



**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 11, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you share concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities providing the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on

Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and that there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

Your letter expresses concerns about the impacts of the proposed station on wildlife on the proposed Clarington TS site. Wildlife species surveys were conducted for the project area, the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot onsite is considered significant, our investigation found that, other than size, no features that would normally support “significance” were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3**, in the Significant Woodlands subsection, approximately 1.5 hectares of forest may be removed to accommodate the station. Hydro One is committed to a 2:1 replacement of the vegetation loss and has designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration planting plan will be fully developed in consultation with the Central Lake Ontario Conservation Authority (CLOCA), the Municipality of Clarington, Ministry of Natural Resources (MNR) and any other interested parties.

You also note concerns about the impacts of the proposed station on the integrity of local groundwater. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (CLOCA, 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act* (EPA). The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

You state that other sites have not been seriously considered in the environmental assessment (EA) process. During the course of the Class EA process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE



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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 8, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

In your letter, you express concerns regarding impacts of the station on local wells and the location of your well not being shown on Hydro One's maps. The well locations provided on **Figure 3-9** on page 42 of the draft ESR were obtained from Ministry of the Environment (MOE) well records. These records are submitted to the MOE when a new well is constructed or an existing well is being altered or abandoned. Hydro One understands that the records may not account for all of the nearby wells as they may have been installed prior to the required submission of well records.

The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the Province and have yet to find a case where our facilities have negatively affected well water quality or quantity. Hydro

One has extended an offer to land owners adjacent to the property to have their well water tested for quality and level before, during and after construction for a period of two years.

Your letter shares concerns regarding equipment failures and the potential discharge of mineral oil from on-site transformers. As a result of the event at Cherrywood TS, Hydro One has improved its transformer spill management systems. Improvements include a new containment design that has eliminated mechanical and electrical components so that in the event of a release, all oil will be captured and stored in precast concrete holding tanks. The frequency of system inspections has increased and operation manuals have been improved. The spill containment system that would be installed at Clarington TS is reliable and secure.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The drainage design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality.

Further details regarding groundwater can be found in the following draft ESR sections. **Section 3.1.3** describes the hydrology and hydrogeology information of the project area. **Section 4.8** provides a summary of the comments and issues raised throughout the consultation process. **Section 7.1.2** provides a description of potential environmental effects associated with liquid discharges and the associated mitigation. **Section 7.2** in the hydrology subsection discusses the potential environmental effects associated with hydrology and the associated mitigation.

Your letter also expresses concerns regarding the potential impacts to wildlife. Wildlife species surveys were conducted for the project area the results of which are located in **Appendix C** of the draft ESR. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas.

Hydro One has conducted field studies and an assessment of the features and habitats at the proposed Clarington TS site. The results of these studies are provided in **Section 3** of the draft ESR. Although the woodlot onsite is considered significant, our investigation found that, other than size, no features that would normally support “significance” were present. Our investigation also indicated that no concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors were present.

As discussed in **Section 3**, in the Significant Woodlands subsection, approximately 1.5 hectares (ha) of forest may be removed to accommodate the station. Hydro One is committed to a 2:1 replacement of the vegetation loss and has designated areas within the project area for this purpose. These areas will not only satisfy this 2:1 replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with adjacent natural systems. The development of a restoration planting plan will be fully developed in consultation with CLOCA, the Municipality of Clarington, Ministry of Natural Resources (MNR) and any other interested parties.

Further, a search of the MNR Natural Heritage Information Centre database indicated that no species at risk have been recorded since 1989 within the project area. Hydro One has also undertaken a wildlife species survey for the project area.

According to the MNR, butternut trees, bobolink and eastern meadowlark were identified prior to 1989, and may be found in the project area given that this is within their natural range. As described in **Section 3.1.6** of the draft ESR, 52 bird species, one of which is the barn swallow, were identified during breeding bird

surveys. Results of the survey are presented in **Table C-6** of **Appendix C**. Barn swallow favour artificial structures (i.e., barns, bridges, etc.) for nesting and roosting of which none are present on the project site and/or being affected by the project.

As described in **Section 3.1.6**, bobolink and eastern meadowlark are also native to this area and are both designated as threatened federally (Committee on the Status of Endangered Wildlife in Canada, 2012) and provincially (MNR, 2009). Bobolink is a grassland species which nests primarily in forage crops with a mixture of grasses and broadleaf forbs. Eastern meadowlark is a ground-nesting species which prefers habitats modified by humans, such as hayfields, meadows, pastures and grasslands. Surveys conducted in spring 2012 found that the agricultural fields within the project area, which consisted entirely of row crops (i.e., corn and soybeans), supported neither bird species and in both cases did not provide the required habitat type.

Forty-six butternut were identified during the field surveys. Based upon the butternut health assessment which was undertaken and validated with the MNR; 36 were considered retainable. The reconfiguration of the 230 kilovolt (kV) lines will result in the removal of three retainable butternut. Hydro One will be applying to the MNR for the approval to remove these trees. Associated with this removal will be a replacement planting of at least 30 butternut, which is more than the actual amount required in the approval under Section 17c of the *Endangered Species Act*. Also associated with this planting will be an equal number of other site-compatible indigenous tree species. More information on the potential environmental effects and the proposed mitigation associated with the natural environment can be found in **Section 7.2**.

There are no fish or amphibian species at risk identified in the Harmony Creek and Farewell Creek tributaries associated with the Clarington TS project area. However, these tributaries contribute to seasonally direct fish habitat and are considered as fish habitat. The potential changes to tributaries in the project area (i.e., installation of watercourse crossings) are not anticipated to affect fish communities downstream as flow through the culverts will be maintained in a similar pattern to the existing channel. Refer to **Section 7.2** of the draft ESR.

Your letter expresses concerns about the proposed station's potential effects on health. Clarington TS will not result in an increase in Electric and Magnetic Fields (EMF). Any EMF that exist at the site are a result of the existing 230 kilovolt (kV) and 500 kV transmission lines that already exist on the property. EMF are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations, and transmission & distribution lines. For more than 30 years, research studies have examined questions about EMF and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMF cause or contribute to adverse health effects.

Hydro One looks to Health Canada for guidance on EMF issues and has enclosed its Frequently Asked Questions on this matter in the draft ESR.

Hydro One recognizes that construction activities can be disruptive to residents, and we are committed to mitigating these effects as much as possible and ensuring community safety. Hydro One will develop a construction mitigation plan prior to construction and will hold an open house to provide the community with information on what they can expect during this phase of the project.

You note concerns regarding impacts to agricultural life as a result of the proposed station. The total area of cultivated land affected by the proposed Clarington TS project, including the permanent access road, will be about 16.4 ha. Agricultural land that is cleared or damaged during construction, including temporary

warehousing areas, will be restored after construction is complete. Current agricultural land located outside of the project area will not be affected by the proposed project. Refer to **Section 7.3.2** of the draft ESR.

Your letter expresses concerns about the impact of the proposed station on property values in the area. Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors as well as broader social and economic conditions associated with the overall marketplace. We appreciate that the construction of new a transformer station can be temporarily disruptive to people living in close proximity. Historically, we have found that although property values may decline during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.

Finally, you suggest that Hydro One “should select a site not close to town”. Following recommendations from the Ministry of Energy that came out of the public inquiry “Report of the Solandt Commission” in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future transformer station to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that “the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.” This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirements, is located where the 500 kV and 230 kV lines meet and it is already owned by Hydro One.

During the course of the Class Environmental Assessment (EA) process, no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives and based on knowledge of the project area and other factors. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and area surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

April 18, 2013

[REDACTED]

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear [REDACTED]

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station. Our project team is committed to working with the community as we move through the approvals phase of this project. We believe that the information provided in this letter will answer your questions and provide you with some additional background about the project.

As indicated in **Section 1.1** in the draft Environmental Study Report (ESR), Hydro One Networks Inc. (Hydro One) has a responsibility to all energy consumers in the province of Ontario to deliver power in a safe and reliable manner. To that end, the Ontario Power Authority has recommended that Hydro One develops an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Your letter expresses concerns about the decision to locate the station on the Oak Ridges Moraine. Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule "A" – Map "A5" of the

Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule in the Durham Regional Official Plan. Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft ESR) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outline in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

In your letter, you express concerns about oil spills. Hydro One takes our commitment to the environment very seriously, and wants to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture and store the oil in precast concrete holding tanks in the event of oil release from a transformer. The only source of station discharge will be runoff from precipitation.

The station will be operated remotely from Hydro One’s grid control centre. Maintenance personnel will make periodic site inspections and will be dispatched to the station in of the event of an emergency, or for occasional maintenance.

The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred such approvals demonstrating that effects can be readily managed through conventional controls.

Your letter also notes that alternative site locations may be more appropriate for this station. During the course of the Class Environmental Assessment (EA) process, no alternative was considered technically or economically reasonable. The *EA Act* requires consideration of reasonable alternatives. Please refer to **Section 1.3** of the draft ESR.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

With the above, we trust that your comments have been addressed. Please feel free to contact me at 1-877-345-6799 or [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com) if you have further comments on the proposed project.

Sincerely,



Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 20, 2013

Ms. Terri Pellerin  
Intermediate Teacher – Kedron Public School  
1935 Ritson Road N  
Oshawa, ON L1H 7K5

Dear Ms. Pellerin:

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Thank you for your letter regarding the proposed Clarington Transformer Station (TS). As you are aware, our project team has also received letters from your class requesting a Part II Order for a higher level of assessment, and we have attached combined responses to those letters for you to share with your students. Hydro One will be addressing your personal concerns as a neighbouring resident in a separate letter, but would like to take this opportunity to respond to you in your role as an educator.

Hydro One takes its responsibility very seriously to educate not only our customers, but all residents of Ontario about the province's electricity system and electrical safety. This is why we dedicate much time and effort meeting with communities before the construction of a new transmission station to answer questions such as the ones your students brought forth. In fact, part of the Class Environmental Assessment (EA) process for this project included public consultation aimed at addressing specific concerns raised by the community by providing facts and project information, impacts associated with the work, as well as Hydro One's mitigation plans.

We note that the students' letters expressed concerns over a broad range of perceived environmental and health effects that are not necessarily based on fact. Many of your students are under the false belief that the station is a nuclear facility and that living in close proximity to a station may pose severely detrimental effects on human health. We have provided your class with information from Hydro One's field tests and studies, industry sources and relevant regulatory agencies with the hope that any expressed concerns will be resolved.

Your letter states that the school curriculum is designed to help students learn about issues and how differences of opinion may occur. We agree that this project can be an excellent opportunity for your class to learn about the EA process, how issues are identified and addressed and how the regulatory agencies play a part in protecting the public interest during these types of projects. That is why we would be pleased to come to your class to discuss the project and the importance and relevance of the EA process.



If you are interested in providing your students with an opportunity to talk about this project, please do not hesitate to contact us to set up a time to meet with your students.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a vertical line extending downwards.

Cc: Denise Jamal, Manager – Public Affairs, Hydro One Networks Inc.  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE  
Donovan Fraser, Principal – Kedron Public School

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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

March 20, 2013

Grade 7 class  
C/o Ms. Pellerin, Kedron Public School  
1935 Ritson Road North  
Oshawa, Ontario  
L1H 7K5

Dear Students:

**RE: Class Environmental Assessment for the proposed Clarington Transformer Station in the Municipality of Clarington**

Thank you for your comments regarding the Clarington Transformer Station (TS) project. We understand that you have concerns about the proposed station and have provided answers to your questions in the issues chart below.

Hydro One believes that this project provides an excellent opportunity for you to learn about the environmental assessment (EA) process. That is why we would be pleased to come to your class to discuss this project and answer any questions you might have on the importance and relevance of the EA process.

If you are interested, we have offered the opportunity to your teacher and would be pleased to organize it with Ms. Pellerin.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian McCormick". The signature is stylized and somewhat abstract.

Brian McCormick  
Manager – Environmental Services & Approvals  
Hydro One Networks Inc.

Issues	Hydro One Responses
<b><i>Clarification on the Nature of the Proposed Project</i></b>	
Building a nuclear plant	Hydro One has proposed to build a transformer station, not a nuclear generating station.
Building a factory	The proposed project is a transformer station, not a factory. There are many differences between transformer stations and factories, for example, the station is an open air facility unlike a factory which tends to be fully enclosed.
Dangerous to live near a power plant when left unattended	The proposed project is a transformer station, not a power/generation plant. There is no danger to area residents when the station is left unattended.
Building a Hydro Station	The proposed project is a transformer station, not a hydroelectric generating station. A transformer station does not produce electricity. It helps transform energy from one system to another (higher voltage to lower voltage), so it is safe to deliver power to homes and businesses.
<b><i>Natural Environment</i></b>	
Building on the Oak Ridges Moraine	<p>Hydro One understands the importance of the Oak Ridges Moraine and we are working to protect it. The station is an accepted use within the Oak Ridges Moraine as long as specific conditions are met (i.e., Section 41 of the Oak Ridges Moraine Conservation Plan [2002]).</p> <p>As you may know, there are existing transmission facilities on the proposed Clarington Transformer Station site. There are different requirements under the Oak Ridges Moraine Conservation Plan for development. A transformer station is not considered as development but rather infrastructure.</p> <p>Hydro One has trained professionals working in the environmental field. We work closely with government agencies who also have highly trained people. Through the environmental assessment process, we will ensure that the Moraine is protected.</p>
Wildlife habitat	A wildlife species survey was conducted for the project area. Terrestrial wildlife habitats within the project area include agricultural fields, cultural thickets/meadows, dry marsh communities and woodland areas. There are no areas on the site that would be considered Significant Wildlife Habitat based on field studies and an assessment of the features and habitat.

	<p>Hydro One is committed to restoring any areas where vegetation is affected, as well as a 2:1 area replacement of the vegetation loss. Designated areas within the project area for this purpose have already been set aside. These areas will not only satisfy this replacement, but were also chosen to develop and enhance natural linkages within the project area to connect with surrounding natural systems. The development of a restoration planting plan will be fully developed in discussion with the Central Lake Ontario Conservation Authority (CLOCA), the Municipality of Clarington, Ministry of Natural Resources (MNR) and any other interested parties.</p>
Pollution	<p>There are more than 280 transformer stations in Ontario. Hydro One has a strong track record of environmental compliance and stewardship, and is committed to the completion of a comprehensive environmental assessment and reduction of potential environmental effects.</p> <p>For this project, Hydro One has completed a number of field studies to evaluate habitat with respect to avians, amphibians, fisheries, vegetative communities and species at risk. These field studies have followed accepted procedures. Results of these studies have or are in the process of being submitted to the appropriate review agencies to ensure we have covered all of the important issues and that we fulfilled all of the necessary requirements. Depending on the resource, Hydro One will work with the respective agencies to come up with solutions and monitor the effects after construction is complete.</p> <p>The objective for all projects of this type is a 'no net loss' of terrestrial and aquatic habitat and, where possible, a 'net gain'. An Environmental Specialist will monitor the construction activities and provide guidance on needed field changes.</p>
Oil Leaks	<p>Hydro One has an oil spill containment system that is automatic, reliable and secure. The system is designed so that in the event of a release, oil will be captured and stored in designated concrete holding tanks.</p> <p>The station will have spill containment and oil/water separation facilities. If the equipment fails, oily water will not escape from the site. An Emergency Response Plan will govern spill response. Spill cleanup and response equipment will be located on site.</p> <p>The spill containment systems are designed to prevent transformer insulating oil from entering the surrounding environment. The only source of station discharge will be runoff from precipitation. The containment and drainage systems must receive an Environmental Compliance Approval (ECA) under the <i>Environmental Protection Act (EPA)</i>. The approval covers not only the proposed facilities but also the Emergency Response Plan. Hydro One has obtained several hundred of these types of approvals proving that they are able to effectively manage these effects.</p>

<p>Construction will crack aquifers and contaminate the groundwater</p>	<p>Hydro One is aware of community concerns regarding groundwater and aquifers. The proposed facility will not impact the aquifer or groundwater.</p> <p>The proposed station will be situated on land with a deep layer of glacial till (10 to more than 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (CLOCA, 2011). Based on station design, available information, field data and meetings with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have not found one case where our facilities have negatively affected well water quality or quantity. Monitoring wells installed at the site will be checked regularly for groundwater depth and quality.</p>
<p><b>Socio-Economic Environment</b></p>	
<p>Loss of view</p>	<p>Hydro One is working to develop a vegetation restoration and screening plan. Hydro One's intent is to reduce views into the station as much as possible.</p>
<p>Noise during operation</p>	<p>Transformers will produce a humming sound when energized and usually have cooling fans which contribute sound when operated occasionally. Hydro One will be applying for an ECA under the <i>EPA</i> for the installation of the transformers. The ECA for noise will include testing and modeling to ensure the final operation of the site does not exceed the noise limits as per Ministry of the Environment requirements.</p>
<p>Traffic</p>	<p>Hydro One will develop a traffic management plan with the Municipality of Clarington and the City of Oshawa, as well as monitor and respond to any resident and motorist complaints. To minimize disruption and/or delays to local traffic and emergency public safety services, advance notice will be provided to municipal emergency response units. Where appropriate, traffic control officers will be assigned to assist with construction vehicle entry and exit. Hydro One will make best efforts to schedule construction activities in order to minimize adverse effects on local traffic.</p>
<p>Need for the project</p>	<p>The Ontario Power Authority (OPA) has advised Hydro One that Ontario Power Generation's (OPG) Pickering Nuclear Generating Station (NGS) will be closing down between 2015 and 2020. Pickering NGS is the largest</p>

	<p>generating facility in the Greater Toronto Area (GTA) and currently supplies the GTA (including the Regional Municipality of Durham) with more than 25 percent of its peak electricity demand. When the generating station is removed from service, its 3,000 megawatts (MW) of capacity must be replaced by the same amount of power through Hydro One's transmission system because there is no other available source of power. The OPA recommended that Hydro One install the station by the spring of 2015 to address the possible retirement of Pickering NGS to prevent unacceptable reliability to the eastern portion of the GTA under an early retirement schedule.</p>
Property values affected	<p>Residential property value is dependent on many factors including the type of residential property, location/neighborhood factors, as well as broader social and economic conditions associated with the overall marketplace. Hydro One owns and operates transformer stations across the province, in both urban and rural areas. We understand that the construction of new a transformer station can be temporarily disruptive to people living nearby.</p> <p>Historically, we have found that although property values may decline or stay the same during the construction phase of a new transformer station, they typically return to market values consistent with other similar properties in the local area over time.</p>
Health Concerns	<p>Clarington Transformer Station will not result in an increase in Electric and Magnetic Fields (EMFs). Any EMFs that exist at the site are a result of the 230 kilovolt (kV) and 500 kV transmission lines that already exist on the property. EMFs are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations, and transmission and distribution lines. For more than 30 years, research studies have examined questions about EMFs and health. Health agencies and a large number of reputable scientific organizations around the world have concluded that the scientific research does not demonstrate that EMFs cause or contribute to adverse health effects.</p>
Move families out of their homes	<p>Hydro One is not moving families away from their homes. The station will be built on property already owned by Hydro One.</p>
Tearing down houses	<p>This property was purchased in 1978 for the purpose of a future transformer station. Hydro One is not taking away property from any residents or removing houses. The property is currently used for agricultural purposes.</p>
Future development on	<p>This station is not being built for the purpose of supporting or attracting either current or future</p>

the Oak Ridges Moraine	<p>industrial/commercial development. The Clarington Transformer Station is needed to address the eventual closure of Pickering NGS.</p> <p>Further, any development that might be considered in this area would be subject to approval by the Municipality of Clarington and other approval agencies, as required.</p>
<b><i>Technical, Cost &amp; Miscellaneous</i></b>	
Other options	The <i>Environmental Assessment Act</i> requires consideration of reasonable alternatives. Based on knowledge of the project area and from a technical and economic perspective, Hydro One has concluded that there are no other reasonable locations for the transformer station that will address the retirement of Pickering NGS.
Station size	The station will be approximately 17 hectares (ha) in size. Hydro One is designing the proposed station to utilize the least amount of space required.
Hydro One should not lie	Hydro One has been open, honest and has not tried to hide anything throughout the environmental assessment process for the proposed project.
Laws do not apply to Hydro One	Hydro One must follow all applicable legislation and governing (planning) documents. Before the project can begin construction, there is a series of permits, licenses and approvals that may be required under federal, provincial and municipal legislation. Hydro One works with all applicable regulatory agencies to meet all requirements and meets with agencies and municipalities throughout all stages of proposed projects to ensure full compliance.

## **Glossary of Terms**

### **Transformer:**

A device that changes electric voltage. In Ontario, electricity typically leaves the generator at 20,000 volts or less, is stepped up to 115,000, 230,000 or 500,000 volts (115, 230 or 500 kV, respectively) to be transmitted long distances and then stepped down to lower voltages to be distributed to customers ending up at a mere 110 volts in our homes. Each change in voltage is accomplished with a transformer.

Source: Hydro One

### **Nuclear power generation:**

A nuclear power plant is a facility that converts atomic energy into usable power. In a nuclear electric power plant, heat produced by a reactor is generally used to drive a turbine which in turn drives an electric generator.

Source: Organization for Economic Co-operation and Development (OECD), 2002

### **Hydroelectric power plant:**

A power plant that uses moving water to power a turbine generator to produce electricity.

Source: Ontario Power Generation (OPG)

### **Oak Ridges Moraine Conservation Plan (ORMCP):**

The Oak Ridges Moraine Conservation Plan is an ecologically based plan established by the Ontario government to provide land use and resource management direction for the 190,000 hectares of land and water within the Moraine.

Source: Ministry of Municipal Affairs and Housing (MAH), 2010

### **Significant wildlife habitat:**

Ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

Source: Ontario Ministry of Natural Resources (MNR), 2000



**Environmental compliance:**

Environmental compliance is the process of adhering to environmental regulations in effect, environmental policies, and requirements that you expect may become law in the (near) future.

**Environmental stewardship:**

The responsibility for environmental quality shared by all those whose actions affect the environment.

Source: Environmental Protection Agency (EPA), 2012

**“No net loss” approach:**

This principle is fundamental to the habitat conservation goal, which strives to balance unavoidable habitat losses with habitat replacement so that further reductions to Canada's resources may be prevented.

Source: Department of Fisheries and Oceans (DFO) Canada, 2013

**“Net gain” approach:**

More environmental benefits or improvements occur than losses.

Source: Department of Fisheries and Oceans (DFO) Canada, 2013

**Groundwater:**

Water that is found underground in the cracks and spaces in soil, sand and rock.

Source: The Groundwater Foundation

**Aquifers:**

Groundwater is stored in and moves slowly through layers of soil, sand and rocks called aquifers.

Source: The Groundwater Foundation

**Permeable:**

Allows liquids/gasses to pass through easily.

Source: The Groundwater Foundation

**Significant groundwater recharge area:**

An area where groundwater is replenished; water from precipitation is transmitted downward to an aquifer.

Source: The Groundwater Foundation

**Peak electricity demand:**

Electrical power is expected to be provided for a sustained period at a significantly higher than average supply level.

Source: Ontario Ministry of Energy, 2012

**Electric and Magnetic fields (EMFs):**

EMFs are invisible lines of force surrounding any electrical wire or device. They consist of two components — the electric field, which is the result of voltage, and the magnetic field, which is the result of current flow.

Source: Hydro One

**Appendix B10: MOE Part II Order Review Period  
Correspondence**

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**Hydro One Networks Inc.**

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Toronto, Ontario M5G 2P5  
www.HydroOne.com

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**Denise Jamal**

Manager  
Public Affairs



April 23, 2013

**RE: Proposed Clarington Transformer Station meeting**

Dear Enniskillen Environmental Association:

Thank you for your questions from the meeting on January 28, 2013. The issues that you brought up are addressed below.

In regard to your question about 2015 in-service date for the Clarington Transformer Station (TS), the Ontario Power Authority (OPA) has advised Hydro One Networks Inc. (Hydro One) that Pickering Nuclear Generating Station (NGS) is approaching its final years of operation. Pickering NGS is one of the largest generation facilities in the east Greater Toronto Area (GTA), supplying over 25 percent of the GTA's peak electricity demand through the 230 kilovolt (kV) system. When the generating station is removed from service, its 3,000 megawatts (MW) of capacity must be replaced by a corresponding kilovolt of power through Hydro One's transmission system. This supply can only be provided through the 500 kV system. Failing to offset this generation loss with transmission capability would have an immediate and significant supply reliability impact to the east GTA as a whole, including the Region of Durham. Clarington TS is not a generation facility but a transmission facility that can route power from other sources of generation once Pickering NGS is retired. Although the exact timing of the generating facility's retirement is unknown and Ontario Power Generation is seeking to extend Pickering NGS operations until 2020, Hydro One must be prudent and begin the Class Environmental Assessment (EA) process in a timely manner. This includes accounting for and respecting the timelines required for the approvals process. Consequently, the OPA has recommended that Hydro One develop an implementation plan and initiate the necessary work to build a new transmission facility in the Municipality of Clarington to ensure continued, safe and reliable power delivery in the east GTA and to meet established reliability criteria.

You inquired as to why Hydro One chose this site as the location for the proposed station location. Following recommendations from the Ministry of Energy that came out of the public inquiry "Report of the Solandt Commission" in 1975, Ontario Hydro received approval to expropriate this property in 1978 with the immediate need to build new 500 kV lines, and the foresight to build a future TS to support the eventual electricity supply and demand in the area. The Provincial Policy Statement (2005) states that "the use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities." This property is the most logical and only viable location to accommodate the proposed station because it meets the size requirements, is located where the 500 kV lines and 230 kV lines meet, and is already owned by Hydro One.

In regard to your question about locating a station on the Oak Ridges Moraine, Hydro One aims to develop transmission infrastructure projects that respect the natural environment while still ensuring the safe and reliable delivery of electricity in Ontario. The proposed site for Clarington TS is zoned as Agriculture and designated as Utility within the Municipality of Clarington Official Plan (1996, April 2012 Office Consolidation). This allows for the development of transmission facilities provided that the need is

demonstrated and all reasonable alternatives have been explored. Similarly, the Oak Ridges Moraine Conservation Plan (ORMCP) (2002), and the Greenbelt Plan (2005) also allow for utility infrastructure in all land use designations provided that the need is demonstrated and all reasonable alternatives have been addressed. Where the proposed project is situated on the Oak Ridges Moraine, Hydro One is required to conform to Section 41 of the ORMCP.

Electric power facilities are permitted in all Durham Regional land use designations. The project area is designated Prime Agricultural Areas and Oak Ridges Moraine Areas in the Durham Regional Official Plan. Existing transmission lines are also shown on Schedule “A” – Map “A5” of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule “B” – Map “B1E” Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule of the Durham Regional Official Plan.

Within the project area, the agricultural land within the ORMCP is designated as Countryside Area, while the natural features within the ORMCP are designated as Natural Linkage Areas. The portions of the project area which are outside the ORMCP are governed by the Greenbelt Plan and are designated as Protected Countryside.

The proposed project, as defined under the ORMCP, is not development or site alteration, but is an infrastructure/utility use. To conform to the requirements of the ORMCP under Section 41, Hydro One has demonstrated the need for the project (refer to **Section 1.1** of the draft Environmental Study Report [ESR]) and there is no reasonable alternative (refer to **Section 5**). Hydro One has also demonstrated that the following requirements, as outlined in Section 41 of the ORMCP, will be undertaken for the proposed project (refer to the associated sections within the draft ESR, as described below):

1. The area of construction disturbance will be kept to a minimum (refer to **Section 7.2** and **7.3**)
2. Right of way widths will be kept to the minimum that is consistent with meeting other objectives, such as stormwater management, and with locating as many infrastructure and utility uses within a single corridor as possible (refer to **Section 7.2**)
3. The project will allow for wildlife movement (refer to **Section 7.2.1** for restorative planting)
4. Lighting will be focused downward and away from Natural Core Areas
5. The planning, design and construction practices adopted will keep any adverse effects on the ecological integrity of the Plan Area to a minimum (refer to **Section 7.2**)
6. The design practices will maintain, and where possible improve or restore, key ecological and recreational linkages (refer to **Section 7.2**)
7. The landscape design will be adapted to the circumstances of the site and use native plant species as much as possible, especially along rights of way (refer to **Section 7.3.3**)
8. The long-term landscape management approaches adopted will maintain, and where possible improve or restore, the health, diversity, size and connectivity of the hydrologically sensitive feature (refer to **Section 7.2** and **7.3.3**)

Hydro One will conform to its requirements as infrastructure/utility as set out under Section 41 of the ORMCP.

You noted that Hydro One is proposing to build on a combination of sites that were proposed for the Enfield TS project (1A, 1B, 1C) and not on the attached Site 2. Enfield TS is not part of this Class EA process. The Class EA for Enfield TS was approved in 2008 and construction of the station has been postponed because electricity demand in the area has grown slower than originally forecasted due to the recession. Refer to **Section 1.1** of the draft ESR.

Site 2 described in the Enfield TS Final ESR is not the location for the proposed Clarington TS. Furthermore, Site 2 is too small and not located properly with respect to the existing transmission facilities to be incorporated.

You expressed concerns about pollution to the water caused by the several very large, thick lead plates that you believe are used as transformer insulators. Hydro One does not use lead as transformer insulators. The insulators at the proposed station will be ceramic.

There will be springs and lead used between the transformer and the concrete pad. The lead sheet is a quarter of an inch thick. The sheet will be the same size as the transformer base. It is placed on the transformer pad to assist in filling any gaps between the concrete pad and the transformer base. Under normal conditions lead does not react with water. We consider that lead used in this situation is normal and expect no issues related to water.

You noted concern for local and surrounding area wells. The station will be situated on land with a deep overburden of glacial till (10 to over 30 metres) which has very low permeability. The site is not in a significant groundwater recharge area and is classified as having low aquifer vulnerability to contamination from human and natural impact (Central Lake Ontario Conservation Authority [CLOCA], 2011). Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the wells in the community. We have constructed transmission facilities throughout the province and have yet to find a case where our facilities have negatively affected well water quality or quantity.

Hydro One understands that the community has concerns about our proposed spill containment systems for the transformers at Clarington TS. We take our commitment to the environment very seriously, and want to assure the community that we have reliable and secure spill containment systems. All transformers will be equipped with spill containment and oil/water separation facilities designed to prevent any loss of transformer insulating oil from entering the surrounding environment. The system is designed to capture and store the oil in precast concrete holding tanks in the event of oil release from a transformer. The only source of station discharge will be runoff from precipitation.

The station will be continually monitored and operated remotely from Hydro One's Grid Control Centre. Maintenance personnel will make scheduled site inspections and will be dispatched to the station in the event of an emergency, or for occasional maintenance. All of Hydro One's stations include an Emergency Response Plan which outlines an emergency spill containment procedure.

The station will also be equipped with spill cleanup and response equipment. In this scenario, a responder will locate the one outlet on site, which is outlined in the Emergency Response Plan, and identify if spilled material has reached this point. If not, the responder will contain the spill from spreading or entering the outlet. The responder will contain the spill by closing equipment valves, berming the spill area, etc. The spill area will also be cordoned off by using barrier tape and traffic cones.

In the rare event that the responder identifies that the spill has left the site, the responder will follow the water course to determine the extent of travel and would use spill kit to block the drainage outlet to the water course. The Ministry of the Environment Spills Action Centre, Ministry of Natural Resources, Municipality of Clarington and CLOCA would all be contacted in this case. In all cases, the spill area would be secured and efforts would be made to retrieve all of the spilled substance. Where possible, the spill area would also be restored to its original condition.

To address your question about project costs and what these costs include, it is too early at this stage of the process to provide the requested breakdown of the overall cost of the proposed project. The project is still proceeding through the public tendering process. Hydro One is unable to determine the exact cost breakdown.

In regard to your question about alternative sites, during the course of the Class EA process no alternative was considered reasonable from a technical and economic viewpoint. The *EA Act* requires consideration of reasonable alternatives based on knowledge of the project area and other factors. Hydro One has concluded that there are no other reasonable locations for Clarington TS that will address the eventual retirement of Pickering NGS. **Section 1.3** of the draft ESR outlines the Alternatives to the Undertaking.

Other sites were proposed by the Enniskillen Environmental Association: Pickering NGS, Darlington NGS, Whitby TS surrounding lands, Wesleyville GS and “Seaton” lands, and lands surrounding Cherrywood TS. **Section 4.6.2** explains the reasons why these sites do not warrant further consideration. **Section 5.1** provides additional information on rationale of the preferred station location.

Hydro One has undertaken borehole testing, and boreholes were drilled up to a depth of up to 15 metres and were used to determine the soil and hydrological conditions that needed to be taken into consideration for construction and operation purposes. The boreholes used for monitoring wells were screened in the zone in which groundwater was encountered. This varied with each borehole

In regard to your question about the hydraulic gradient at the proposed site, we can confirm that it is west and southwest. This information is described in **Section 3.1.3** of the draft ESR.

You asked why a government agency would want to put a valuable declining resource and the health and welfare of its ratepayers at risk. Hydro One has assumed that the question above is related to groundwater based on other questions asked within the letter.

Based on station design, available information, field data and consultation with regulatory agencies, Hydro One does not believe that the proposed project will have any effect on the local groundwater or put the health and welfare of its ratepayers at risk.

Station drainage will be subject to an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The design of the station will ensure that the pre- and post-construction area drainage is not significantly altered. Hydro One has installed monitoring wells at the site that will monitor the groundwater depth and quality. **Section 3.1.3** of the draft ESR describes the hydrology and hydrogeology of the proposed site.

With the above, we trust that your comments have been addressed. Please feel free to contact me if you have further comments on the proposed project.

Sincerely,

A handwritten signature in black ink that reads "Denise Jamal". The signature is written in a cursive, flowing style.

Denise Jamal  
Manager – Public Affairs  
Hydro One Networks Inc.

cc: Brian McCormick, Manager – Environmental Services and Approvals, Hydro One  
Michael Harris, MPP – Kitchener-Conestoga, PC Environment Critic  
John O’Toole, MPP – Durham  
Adam Sanzo, Project Evaluator – Project Review Unit, EAB MOE





The Regional Municipality of Durham

To: Planning & Economic Development, and Works Committee

From: A.L. Georgieff, Commissioner of Planning and Economic  
Development

C. Curtis, Commissioner of Works

Report No.: 2013-J-15

Date: May 2, 2013

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## **SUBJECT:**

Proposed Hydro One Transformer Station, Northeast Quadrant Concession Road 7 and Townline Road, Municipality of Clarington, File: E03 69

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## **RECOMMENDATION:**

THAT a copy of Joint Report No. 2013-J-15 be received for information.

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## **REPORT:**

### **1. PURPOSE**

- 1.1 This report provides information regarding Hydro One's proposed transformer station in the Municipality of Clarington that was the subject of three delegations before the Planning & Economic Development Committee on March 19, 2013, and before Regional Council on April 3, 2013.
- 1.2 A map showing the location of the subject site is provided in Attachment 1. A figure showing Hydro One's conceptual layout for the facility is provided in Attachment 2.
- 1.3 During their presentations, the delegates raised both technical and procedural concerns. From a technical perspective, the delegates question the suitability of the subject site for the intended use. The subject lands are located almost entirely within the Oak Ridge Moraine. The delegates are concerned about the potential for adverse impacts on the environment if the facility is built at this location. The delegates advised that the water table is very close to the surface at this location and that the facility may be built on or near wetland features. They are particularly concerned about the potential for groundwater contamination if the transformers were ever to leak by way of an explosion or

otherwise. Procedurally, the delegates have asked why this large facility is proceeding by way of a Class Environmental Assessment for “Minor” Transmission Facilities.

- 1.4 The purpose of this report is to provide general information regarding the proposal and the EA process under which the approvals are being sought.

## **2. DESCRIPTION OF THE SUBJECT SITE AND SURROUNDING AREA**

- 2.1 The Hydro One site is approximately 30 hectares (74 acres) in size. The subject lands were acquired by Ontario Hydro in the late 1970s to accommodate future transmission and transformer facilities. Of the site’s total area, the proposed transformer station will occupy approximately 20 hectares (49 acres).
- 2.2 At present, limited access to the site is available from Townline Road. The site’s westerly boundary abuts the unopened road allowance of Townline Road which is the municipal boundary between the Municipality of Clarington and the City of Oshawa.
- 2.3 The lands surrounding the subject site are rural and agricultural in character. Rural residential uses front onto both Concession Road 7 and Langmaid Road.
- 2.4 The site is situated at the southerly edge of the Oak Ridges Moraine and generally slopes from north to south. Treed hedgerows define the boundaries of existing farm fields on the property. High voltage (500 and 230 kilovolt (kV)) transmission lines pass through the site.
- 2.5 A treed area associated with the headwaters of Farewell Creek is located near to the westerly boundary of the site. Other watercourse features are situated along the southern property boundary and abutting Langmaid Road.

### **3. NEED FOR THE PROPOSED UNDERTAKING**

- 3.1 According to Hydro One, the need for this new transformer station is largely based on the pending closure of the Pickering Nuclear Generating Station in 2020. Once the Pickering nuclear plant is removed from service, its 3,000 megawatts of electricity generating capacity will have to come from other facilities. To that end, the Ontario Power Authority has determined that a new transformer station will be required in the east GTA to deal with the required transmission system upgrades.
- 3.2 The proposed station will include two 500/230 transformers, a 500 kV switchyard, a 230 kV switchyard, two relay buildings, one electrical panel building, as well as the associated connection facilities and required equipment. Approval is also being requested for two additional 500/230 kV transformers and associated facilities that would be built at a later date to meet future electrical system demands. Essentially, the station is being designed to convert energy from the 500 kV lines to the 230 kV lines, which would then be supplied to local distribution companies for end-use customers.
- 3.3 The Draft Environmental Study Report (ESR) prepared for the Clarington TS states that the proposed station transformers will be equipped with spill containment systems designed to prevent the loss of transformer insulating oil from entering the surrounding environment. The report further states that the only source of station discharges will be runoff from precipitation. The containment and drainage systems are subject to an Environmental Compliance Approval (ECA) under the Environmental Protection Act (EPA) which covers the proposed facilities and the Emergency Response Plan (ERP).
- 3.4 According to Hydro One's representatives, the proposed Clarington transformer station will be similar in size and appearance to the transformer station that exists in Markham at the southwest corner of Highway 407 and Warden Avenue, known as the Parkway Transformer Station. A photograph of the Parkway Transformer Station is provided in Attachment 3.

- 3.5 Before a new hydro transmission facility can be built in Ontario, an environmental assessment must be approved by the Minister of the Environment to ensure that any environmental impacts can be properly mitigated. Hydro One, as the proponent of the Clarington Transformer Station, is seeking the necessary approvals through the “Class Environmental Assessment for Minor Transmission Facilities”.

#### **4. THE CLASS ENVIRONMENTAL ASSESSMENT PROCESS**

- 4.1 By way of background, there are ten “classes” of infrastructure project, each with its own documented process for obtaining approval under the Environmental Assessment Act; hence the term “Class EA”. A proposed highway interchange, for example, would be examined and approved through the “Class EA process for Provincial Transportation Facilities. A proposed water supply plant, for example, would be examined and approved through the “Municipal Class EA” process. Each class EA document sets out the criteria which must be followed before an approval will be granted.
- 4.2 In order for a new transformer station to be able to proceed under the Class EA process for “minor” transmission facilities, the governing Class EA document states that the nominal operating voltage level of the project may not be less than 115 kilovolts (kV), and not more than 500 kV. Based on this criteria, a project’s classification is determined solely by its operating voltage, not by its physical size or geographic location.
- 4.3 According to Hydro One, the nominal operating voltage of the Clarington transformer station will not exceed 500 kV, thus meeting the criteria of the Class EA document. If the operating voltage were higher than 500 kV, then presumably the project would proceed under an “individual” EA, which is typically a more lengthy and involved process.
- 4.4 On November 15, 2012, Hydro One released a Draft Environmental Study Report (ESR) for public comment. This document was prepared under the terms of the Class EA process. The public and other stakeholders were given 30 days to review and provide comment on the document.

- 4.5 The Region of Durham, the Municipality of Clarington, and the Central Lake Ontario Conservation Authority each provided staff comments to Hydro One in response to the circulation. A copy of these comments is contained in Attachment 4. A variety of concerns were expressed, and requests for additional information were made. Notwithstanding the comments provided to Hydro One, none of the public agencies requested a Part II Order request (sometimes referred to as a bump-up request). In general, it is understood that under the Class EA process, any outstanding policy and implementation issues must be addressed in a subsequent draft or in the Final ESR document.
- 4.6 The Region is aware, however, that numerous Part II Order requests have been made by local residents, environmental groups, and local MPPs John O'Toole and Michael Harris. Concerns expressed as justification for the Part II Order requests include:
- whether the need for the facility has been properly demonstrated;
  - whether all alternatives have been properly examined;
  - the potential for detrimental impacts on the environment;
  - impact on property values;
  - safety concerns regarding a possible explosion; and
  - surface and groundwater contamination and the impacts a leak would have on nearby creeks and private wells
- 4.7 The Minister of the Environment has the following four options when considering a Part II Order request. The Minister may:
- refer the matter to mediation before making a decision on the EA;
  - deny the request, with reasons;
  - deny the request, but impose conditions through the approval of the Class EA; and
  - require the proponent to comply with Part II of the Environmental Assessment Act which essentially means that the proponent would have to prepare more detailed terms of reference and seek its approvals under the terms of an individual EA. An individual EA is generally regarded as a more lengthy and involved process.

The Minister's decision on a Part II Order request is final.

- 4.8 The deadline for submitting a Part II Order request has passed. However, on April 3, 2013, Regional Council directed the Regional Chair to write a letter to the Minister of the Environment to ask him to review the process under which this facility is being considered. The Chair's letter was sent, but as of the date of writing this report, a response from the Minister has not been received.

## 5. **POLICY CONTEXT**

- 5.1 Hydro One projects are specifically exempt from approvals under the Planning Act, provided such projects are approved under the Environmental Assessment Act. Since the Clarington Transformer Station is proceeding through the Class EA process, Ontario Hydro is not required to obtain any official plan, zoning, or site plan approvals from the Region, or Clarington, as the case may be.
- 5.2 The subject lands are partially located within the Greenbelt Plan and Oak Ridges Moraine Conservation Plan (ORMCP) areas. Both documents permit lands to be used for utility purposes provided it can be demonstrated that there will be no negative impacts on the environment.
- 5.3 The majority of the property is designated "Countryside Area" in the ORMCP. A small portion of the site associated with the headwaters of the Farewell Creek on the west side of the property, is designated "Natural Linkage Area" in the ORMCP. Under Section 41 of the ORMCP, a utility project within a Natural Linkage Area designation must address certain policies and standards. In this case; however, no portion of the facility is proposed to be built within the Natural Linkage Area designation.
- 5.4 The subject property is designated "Prime Agricultural Areas" and "Oak Ridges Moraine Areas" in the Durham Regional Official Plan (ROP). The existing hydro transmission lines are also shown on Schedule "A" - Map "A5" - Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" – Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features.

Section 5.2.7 of the Regional Official Plan confirms that electric power facilities are permitted in all land use designations, provided that the planning of all such facilities satisfies the requirements of the Environmental Assessment Act and is carried out having regard to other policies of the Plan.

## **6. HYDROGEOLOGY**

- 6.1 As previously noted, one of the delegation's primary concerns is the impact the facility could have on their wells given the high watertable and other hydrogeologic conditions on the site and surrounding area.
- 6.2 The Regional Works Department has reviewed the technical reports and other pertinent information regarding subsurface soils and hydrogeology in the vicinity of the proposed Clarington Transformer Station. The subject site is situated on lands where subsurface soils are characterized by very dense glacial silt till with the occasional presence of isolated sand lenses at depth. This unit is known as the Newmarket Till which has very low permeability, and where groundwater travels through it very slowly. According to CLOCA and the Regional Official Plan, the area has low aquifer vulnerability to contamination. This condition is related to the presence of glacial till at the surface.
- 6.3 The groundwater levels vary from 0.8 metres (2.6 feet) below ground surface (bgs) to over 15 metres (50 feet) bgs.
- 6.4 The Works Department has identified three shallow wells south of the proposed construction site in the Ministry of the Environment's well record database. There are three wells completed within sand formations between 7.6 metres (25 feet) and 13 metres (43 feet) bgs. However, MOE well records suggest that the majority of residences obtain their drinking water supply from deeper wells completed in intermediate and deep aquifers; both below the Newmarket Till. These deeper aquifers are not likely to be affected by the proposed construction activities. It may also be noted that not all existing wells in the area are registered with the MOE database.

6.5 As stated in the Region's submission on the draft ESR, it is understood that Hydro One intends to undertake a groundwater monitoring program (quality and quantity) for wells in the area before, during and after the construction period.

## 7. **CONCLUSION**

7.1 At present, Hydro One is currently working to resolve all outstanding objections and development related concerns associated with the proposed facility. In the meantime, the MOE must complete its review of the draft ESR document and make a decision on the Part II Order requests. It is not known when the MOE will be making a decision on this matter. Regional staff will continue to monitor this Class EA process and will report back on any decisions that are made by the Minister.

7.2 A copy of Joint Report 2013-J-15 will be forwarded to the Municipality of Clarington, the City of Oshawa, the Central Lake Ontario Conservation Authority, Hydro One, and the Ministry of the Environment, for information.

A.L. Georgieff, MCIP, RPP  
Commissioner of Planning and Economic Development

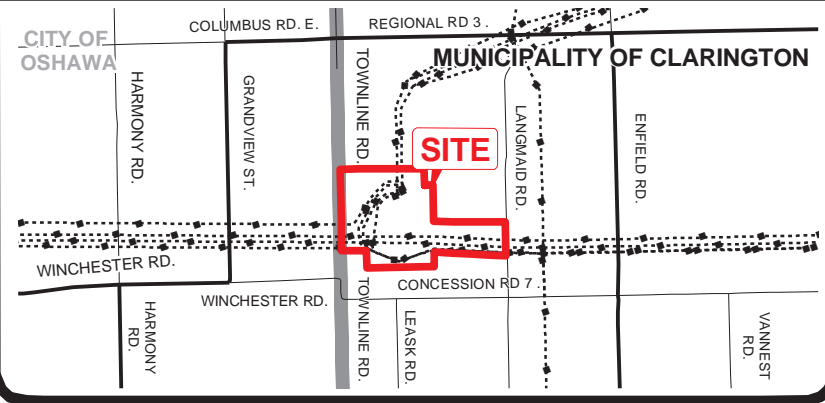
C. Curtis, P.Eng., MBA  
Commissioner of Works

Attachments:

1. Location Sketch
2. Clarington Transformer Station Conceptual Layout
3. Photograph of the Parkwood Transformer Station in Markham
4. Copy of Durham Region, Municipality of Clarington, and Central Lake Ontario Conservation Authority Comments on Hydro One's Draft ESR



# KEY MAP



v:\Geoproj\CR\HydroOne\LocationSketch\Attach 1.mxd

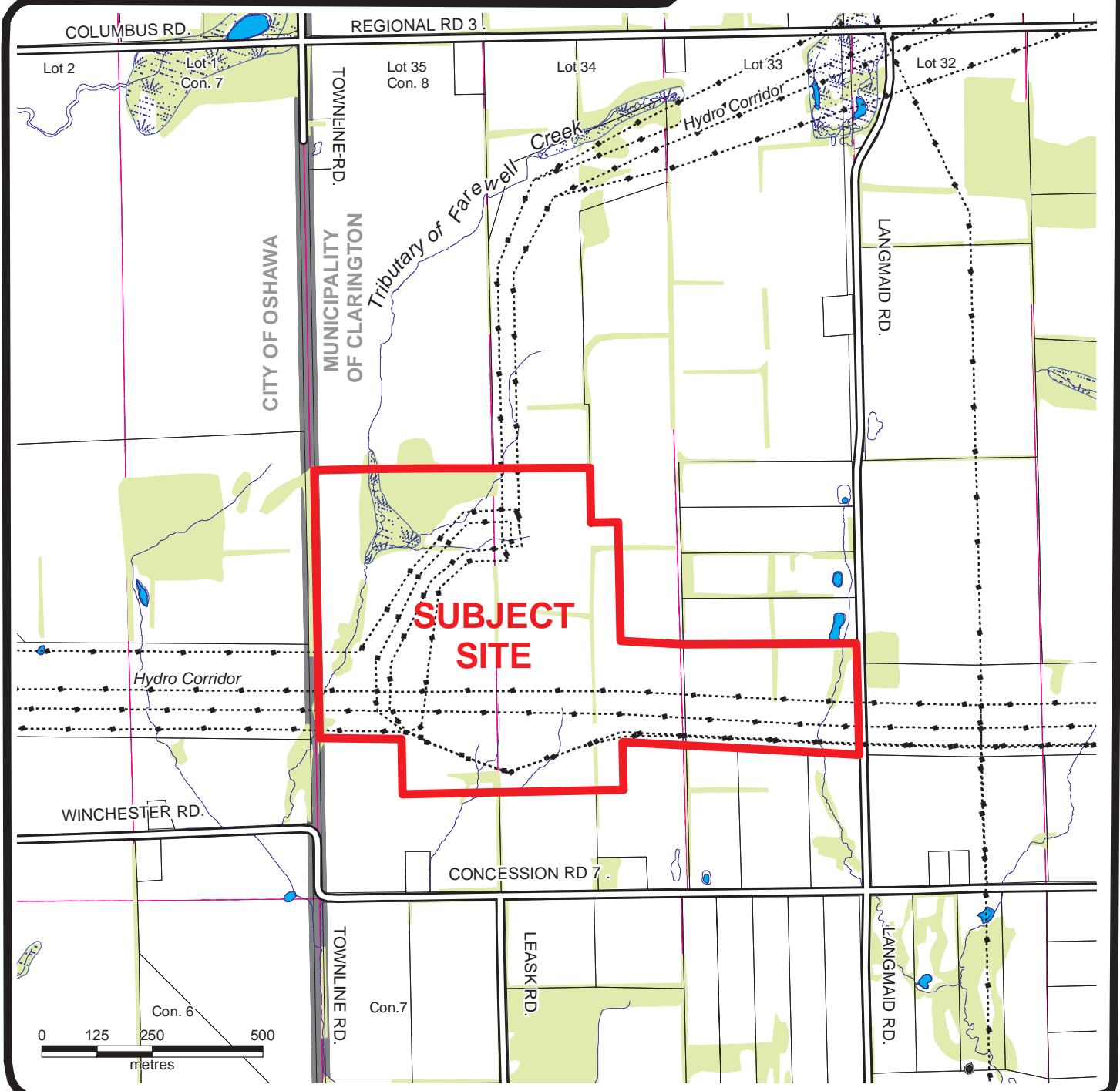
Attachment: 1

File: HYDRO ONE

Municipality: CLARINGTON

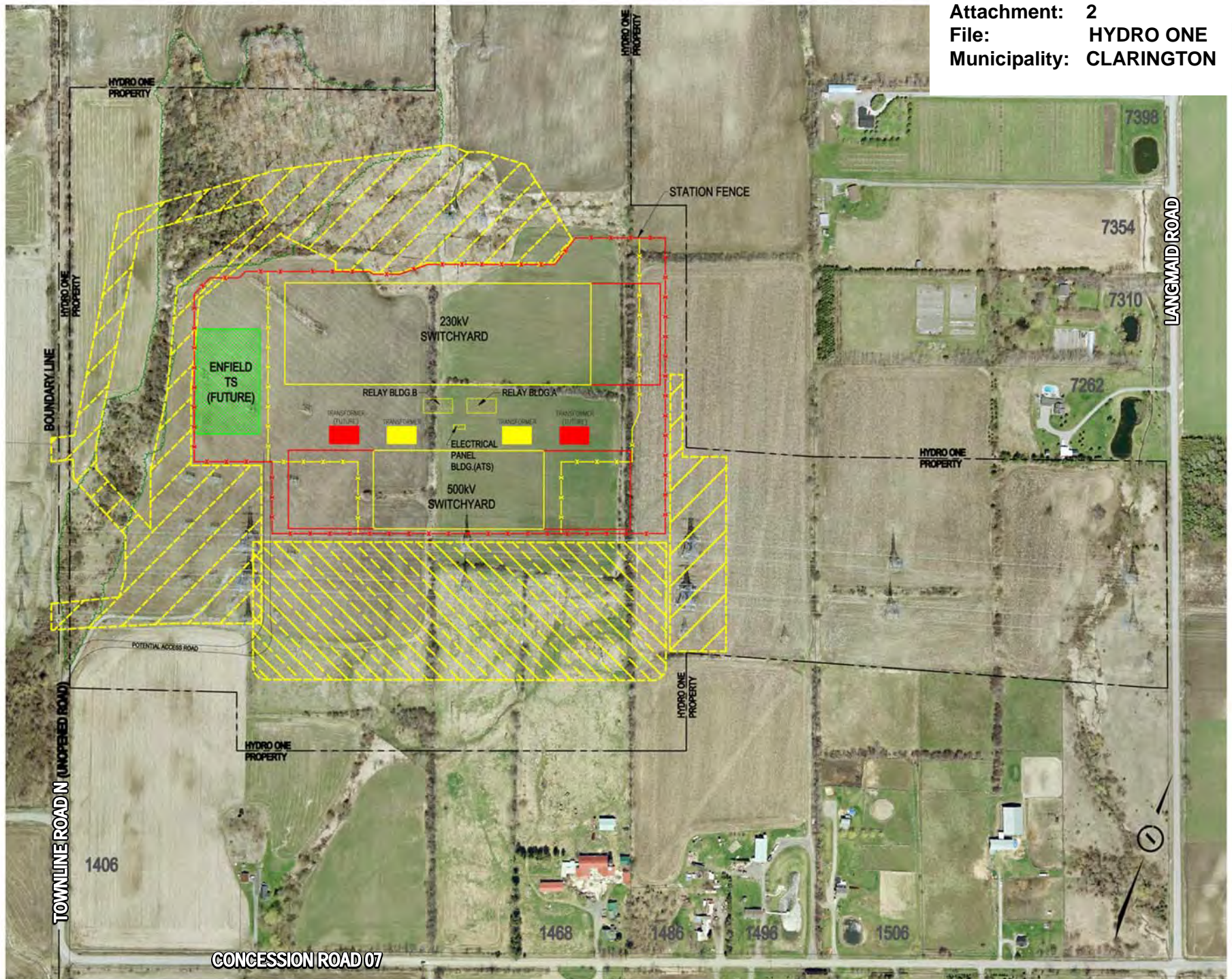
### Legend

- VEGETATION
- LAKE \ POND
- WETLAND
- DRAINAGE
- URBAN AREA BOUNDARY



This map has been produced from a variety of sources. The Region of Durham does not make any representations concerning the accuracy, likely results, or reliability of the use of the materials. The Region hereby disclaims all representations and warranties.

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**CLARRINGTON TS  
 CONCEPTUAL LAYOUT**

- LEGEND:
- FENCE - INITIAL STAGE
  - FENCE - FUTURE STAGE
  - WOODLAND AREA
  - 230 kV LINE WORK AREA
  - 500 kV LINE WORK AREA
  - STATION SWITCHYARD AREA - INITIAL STAGE
  - STATION SWITCHYARD AREA - FUTURE STAGE





# Clarington

*Leading the Way*

December 12, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, ON M5G 2P5

Email: [Community.Relations@HydroOne.com](mailto:Community.Relations@HydroOne.com)

Ministry of the Environment  
135 St. Clair Avenue West, 12th Floor  
Toronto, ON M4V 1P5

**RE: HYDRO ONE NETWORKS INC. DRAFT ENVIRONMENTAL STUDY REPORT,  
CLARINGTON TRANSFORMER STATION PROJECT  
PLN 26.1.3.1 HYDRO ONE SUB-STATION AT ENFIELD**

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This Environmental Study Report (ESR) is unlike other ESR documents staff have reviewed. While the supporting document from Ontario Power Authority provides the rationale and justification for why the sub-station is required and the timing it does not, in our opinion, give Hydro One the ability to carry out a less rigorous process and provide a document which is essentially an "ESR Lite". A number of statements are made in the draft ESR that are based on other reports and background information, this information is not included in the documentation available to the public. The inclusion of traceable references advising where the information and supporting analysis could be found would be very helpful and is typically part of a draft ESR document.

Staff from various departments, have reviewed in detail the various documents available. We are not providing detailed comments on each document, rather we are providing general comments that we believe have not been adequately addressed and affect the overall implementation of the project and its impacts on the environment and community. These comments specifically relate to the proposed mitigation set out in the document and implementation steps. As an attachment we have also noted some specific deficiencies with the draft ESR.

In some cases the supporting documentation does not exist because Hydro One has chosen to not carry out the background work. This is particularly evident in the cultural heritage review and the exchange of comments between Hydro One and the Ministry of Tourism Culture and Sport. It is our understanding that this work is now underway but it is not clear how the mitigation for heritage features will be addressed in the draft ESR.

Had Hydro One undertaken the historical background work, there should have been a better appreciation for the residents, community and socio-economic effects of this project and Hydro One's presence in the community. A more meaningful and long term communications strategy working with the community needs to be part of the mitigation measures outlined on Pages 171 to 178. At a minimum, a Communications Plan for the construction phase should be a requirement of the EA approval of this project. Such a communications plan would include regular hand delivery of newsletters to residential mailboxes within the project study area for the duration of the construction schedule. This would be in addition to project website updates and notifications.

**CORPORATION OF THE MUNICIPALITY OF CLARINGTON**

40 TEMPERANCE STREET, BOWMANVILLE, ONTARIO L1C 3A6 T 905-623-3379

Reference is made to a "traffic management plan" in the mitigation measures. Such a plan should be developed in consultation with the Municipalities (Durham, Oshawa and Clarington) and include the interconnection of the construction schedule and impacts on local traffic for this project and the 407 East extension.

There are a number of detail mitigation items that have been discussed with the agencies and community but no reference to them are included in the mitigation measures other than very generalized statements. Given the lack of traceability in the documents we recommend that details of the mitigation be included in the measures to ensure that issues will be addressed as discussed during the PIC's and meetings with agencies. This would be particularly necessary for the mitigation of the impacts to the Oak Ridges Moraine and natural heritage features, including creek crossings and replacement plantings.

For example, one of the mitigation measures that is very important to the community is the use of the alternate entrance at Townline Road rather than the long laneway off of Langmaid Road. This should be noted as a mitigation measure and a commitment by Hydro One made to entering into a "road user agreement" with Municipality of Clarington and City of Oshawa (shared road).

Another example is with regard to berming and planting to assist in the screening of views of the sub-station, including plantings on private properties to assist with impacts to local resident's views and vistas. In addition, Hydro One has verbally committed to well monitoring to ensure that the project has no impacts on residential wells. These commitments should be included in the draft ESR.

The Fire and Emergency Services Department have indicated that on-site fire suppression and rescue should be carried out by Hydro One forces given the specialty equipment and electrical hazards. Fire and Emergency Services are willing to work with Hydro One to provide specialty training for their crews in the same manner as backup is provided to Ontario Power Generation crews at the nuclear plant. An Emergency Plan should be prepared that meets with DEMO's and Clarington's approval; again this should be included in the mitigation measures.

Should you have any questions with regard to these comments please contact Faye Langmaid, Manager of Special Projects.

Yours sincerely,



David J. Crome,  
Director Planning Services

DJC:sn

cc: Mayor and Members of Council  
Franklin Wu, Chief Administrative Officer  
Patti L. Barrie, Municipal Clerk  
Gord Weir, Fire Chief  
Tony Cannella, Director of Engineering Services  
Andrew Allison, Municipal Solicitor  
Chris Darling, CLOCA  
John O'Toole, MPP

## Specific Comments on the Hydro One ESR for Clarington TS

- All maps are grainy and difficult to read
- Clarington Official Plan (2012)? – should be Clarington Official Plan 1996 (April 2012 Office Consolidation)
- The ESR tries to demonstrate that the need defines the location as the only alternative. Alternatives are discussed by the OPA in Appendix A – This should be discussed more fully in the main document. Further Section 2.4 discusses alternatives – but Appendix A information is not referenced. The Section 2.4 alternatives are an attempt to meet the ESR requirements.
- Clarify that the Oshawa Area TS is now referred to as Clarington TS
- 3.2.1 – this section says lands are within Greenbelt and ORM can be clarified by saying lands are partially within ORM and partially within Greenbelt – however, it needs to be clarified as to what the Official Plan designations and zoning are (i.e. lands are not zoned by the Regional OP)
- Identify number of acres lost to agricultural production
- Outline/highlight site on land use map
- Heritage resources are not addressed
- Copies of Archaeological studies have not been submitted to the Municipality and are not referenced
- Was acoustical study prepared by an acoustical engineer?
- MNR/MOE comments gloss over the fact that site is located in ORM
- MAH has commented that the EA must satisfy Section 41 of ORMCP – where are the discussion/findings that address the requirements?
- Pg. 80 – In the site plan preconsultation meeting we also discussed implementation of ORMCP policies – even though Hydro One is a utility we expected elements of the ORMCP to be addressed
- Pg. 103 – The ESR states that if the negotiation process doesn't pan out for the use of Townline Road, they will proceed off Langmaid – There needs to be commitments to mitigation measures and one of the them is bringing the access off of Townline Road, otherwise the commitments should be updated to address the Langmaid Road access and laneway
- Pg. 131 – 2<sup>nd</sup> bullet point – something is missing
- Generally, issues of cost and land acquisition and time are order of magnitude comments in ESR's not specific reasons
- Page 139 – Alternatives 1, 2 and 3 – all on the same site, not sure this meets the definition of alternatives under the EA Act
- Page 161 - 2 Commit to traffic management plan and emergency plan; this should be carried forward into mitigation measures
- Potential environmental effects, and recommended mitigation, restoration and compensation are lacking items such as a creek crossings, buffer zones, sediment and erosion controls, breeding bird survey, rehabilitation plans etc. are to be part of this document.



December 19, 2012

The Regional  
Municipality  
of Durham

Planning and Economic  
Development Department

Planning Division

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**A.L. Georbleff, MCIP, RPP**  
Commissioner of Planning  
and Economic Development

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6th Floor  
Toronto, ON M5G 2P5

**RE: Regional Comments on the Draft Environmental Study Report  
prepared by Hydro One for the Clarington Transformer Station  
Your Report Number: 590-CLEA-12-11  
Regional File Number: E03 69**

The following comments have been prepared in response to your "Notice of Completion" for the above noted Draft Environmental Study Report (ESR) for the Clarington Transformer Station (TS) project in Clarington. This ESR is intended to satisfy the Class Environmental Assessment for Minor Transmission Facilities (Class EA) process requirements for your submission to MOE.

The Ontario Power Authority (OPA) has advised Hydro One that the Pickering Nuclear Station will be retired between 2015 and 2020. When the Pickering NGS goes out of service, its generating capacity must be replaced with power from Hydro One's transmission system. Since existing transmission facilities servicing Pickering, Ajax, Whitby, Oshawa and Clarington are not capable of meeting the above noted load restoration requirements, OPA has recommended that Hydro One build the required transformer facilities at your property located northeast of Concession Road 7 and Townline Road North in Clarington by the spring of 2015. The justification and location for the proposed new facilities was determined by OPA and included an analysis of alternative sites as suggested during the consultation process. These investigations concluded that the subject property in Clarington (previously named Oshawa East TS) was the only reasonable transformer location from a technical and economic perspective. The previously approved Enfield TS facility will also be built on this property when local demand warrants its construction.

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### **Regional Official Plan Conformity**

This subject property is designated "Prime Agricultural Areas" and "Oak Ridges Moraine Areas" in the Durham Regional Official Plan. The existing hydro transmission lines are also shown on Schedule "A" - Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" - Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule.

Policies 5.2.5 through 5.2.8 of the Regional Official Plan specifically address the requirements for new utility facilities being located here in Durham Region. Policy 5.2.5 for example, states that when considering "the location, design and construction of utilities, the proponent must ensure that the negative impacts and constraints on the natural, built and cultural environments will be minimized." This policy also states that "proponents shall give primary consideration to existing utility corridors in locating and designing new utilities." Section 5.2.7 states among other matters that "electric power facilities are permitted in all land use designations, provided that the planning of all such facilities satisfies the requirements of the Environmental Assessment Act and is carried out having regard to other policies of this Plan." The proposed Clarington TS site appears to meet the Regional Official Plan objectives given it has been planned in accordance with the Class EA for minor transmission facilities and has had regard for the policies of the Regional Official Plan.

Please correct the statement in Section 3.2.1 Land Use on page 51 of your ESR document which states that "The current land use designation is "utility" (for current and future use) and is zoned agricultural by the Durham Regional Official Plan (2008) ...." The sentence should say, "The subject property is designated "Prime Agricultural Areas" and "Oak Ridges Moraine Areas" in the Durham Regional Official Plan. The existing hydro transmission lines are also shown on Schedule "A" - Map "A5" of the Regional Structure land use schedule. Key natural and hydrologic features are identified on the subject property and are shown on Schedule "B" - Map "B1E" Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features schedule. Electric power facilities are permitted in all land use designations."

### **Provincial Policy Statement (PPS)**

Section 1.6.1 of the Provincial Policy Statement (PPS) states that "Infrastructure and public service facilities shall be provided in a coordinated, efficient and cost-effective manner to accommodate projected needs." Section 1.6.2 further stipulates that "The use of existing infrastructure and public service facilities should be optimized,



wherever feasible, before consideration is given to developing new infrastructure and public service facilities." The Hydro One site in Clarington is consistent with these requirements as it will provide a continued supply of electricity to existing and future users.

### **Other Provincial issues**

The proposed new utility uses are located within the limits of the Greenbelt Plan and the Oak Ridges Moraine.

### **Greenbelt Plan**

The Greenbelt Plan recognizes that "Infrastructure is important to economic well-being, human health and quality of life in southern Ontario and the Greenbelt." The Plan also states that "Existing infrastructure must be maintained and new infrastructure will be needed to continue serving existing and permitted land uses within the Greenbelt." The Plan further recognizes that "major infrastructure servicing national, provincial and inter-regional needs traverses the Greenbelt" and that "new and or expanded facilities will be needed in the future to serve the substantial growth projected in Southern Ontario." Policy 4.2.1 2.d) of the Greenbelt Plan states that "New or expanding infrastructure shall avoid key natural heritage features or key hydrologic features unless need has been demonstrated and it has been established that there is no reasonable alternative;" Policy 4.2.1 2.e) further states the "Where infrastructure does cross the Natural Heritage System or intrude into or result in the loss of a key natural heritage feature or key hydrologic feature, including related land-form features, planning, design and construction practices shall minimize negative impacts and disturbance on the features or their related functions, and where reasonable, maintain or improve connectivity. The Region is satisfied that the proposed utility uses meet the general principals and intent of the above noted policies because they are required to serve existing and future electrical needs of residents and businesses in the GTA. In addition, the new facilities will be constructed and operated in a manner that minimizes any negative impacts to sensitive environmental features and functions in the area. Please refer to the comments and recommendations you receive from the Central Lake Ontario Conservation Authority (CLOCA) regarding specific mitigation and/or environmental design requirements for this project.

### **Oak Ridges Moraine**

The draft ESR however, does not include any conclusions about how the proposed new uses meet the approval policies and standards requirements of Section 41 of the Oak Ridges Moraine Plan.

### **Screening Issues**

The ESR report indicates that archaeological and cultural heritage, noise and potential spills studies are being conducted to identify and address required mitigation measures resulting from the proposed new utility facilities. These planning and landuse compatibility issues will be reviewed through submissions and approvals by the Ministry of Tourism, Cultural and Sport (MTCS) and the Ministry of the Environment.

### **Regional Servicing, Transportation and Health Comments**

There are no Regional water or sanitary sewer services planned for this area. Townline Road is designated as a future Type B arterial in the Durham Regional Official Plan. Environmental constraints in this area may alter the final road alignment for Townline Rd which will most likely be a long term City of Oshawa construction initiative. Although the Regional Works, Durham Regional Police Services and the Durham Emergency Measures Office did not raise any concerns with this project, they should be consulted on any related equipment transportation routing, traffic, access, emergency service and response, security or other site planning activities. Please contact this Department regarding your proposed tree cutting activities.

The Regional Health Department had no objection to the proposed new facilities provided requirements under the applicable municipal by-laws and various Environmental Compliance Approvals with the MOE are met. The Health Department understands that Hydro One will be conducting well water tests for interested residents before, during and after construction to ensure well water quality has not been adversely affected by construction activities. Clarington and/or MOE may require an ongoing well water monitoring program during the operating life of the Transformer station to ensure potential mineral oil discharges from the on-site containment system do not contaminate or negatively impact groundwater resources.

### **Conclusion**

Based on the above, the Region does not require a higher level environmental assessment (Part II Order) to support the proposed new 500 (kV)/230(kV) transformers, switchyard, relay buildings, electrical panel building and associated connection facilities and equipment you are proposing to construct as part of this project. The Region expects that the issues raised in this submission will be addressed by the Final ESR before the approval from the MOE.

Should you have any questions with regard to these comments please contact Neil Henderson, Principal Planner in the Current Planning Branch.

Yours truly,



Brian Bridgeman, MCIP, RPP  
Director of Current Planning

cc: Ministry of the Environment  
Clarington Planning Services Department  
Oshawa Development Services Department  
Ivan Ciuciura, Durham Emergency Management Office  
John Molica, Regional Works Department  
Dianne Sanjua, Regional Health Department  
Chris Leitch, Strategic Planning  
PC Paul Hawrychuk, Durham Regional Police Services



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**Member of Conservation Ontario**

December 17, 2012

Yu-San Ong, Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto, ON  
M5G 2P5

Dear Yu-San:

**Subject: Clarington Transformer Station Class Environmental Assessment  
Draft Environmental Study Report (Report No. 590-CLEA-12-11, dated  
November 2012)  
Proposed Transformer Station, Part Lot Municipality of Clarington  
CLOCA IMS #PSSE8**

The Central Lake Ontario Conservation Authority (CLOCA) has reviewed the above noted Draft Environmental Study Report (ESR) as prepared by Hydro One. The proposed undertaking involves a new 500/230 kilovolt (kV) transformer station and associated transmission line work.

The Clarington Transformer Station (TS) is proposed to be located on Hydro One property, within the Regional Municipality of Durham, in the Municipality of Clarington. The project area is defined by the Hydro One property located within Part Lots 33-35, Concession 7. The site borders the east side of the City of Oshawa boundary and is located northeast of Concession Road 7, between the unopened Townline Road North and Langmaid Road.

The majority of the Hydro One property is situated within the Planning Boundaries of the Oak Ridges Moraine Conservation Plan (ORMCP, MMAH, 2002) and is comprised of Countryside and Natural linkage areas. The portions of the property outside of the ORMCP, are situated within the Protected Countryside area of the Greenbelt Plan (MMAH, 2005) and include areas within the Natural Heritage System of the Greenbelt Plan. The Provincial Policy Statement considers key natural heritage features (KNHF, MMAH, section 2.1) which are generally encompassed within the

Page 1 of 12

*What we do on the land is mirrored in the water*



ORMCP and Greenbelt Plans. The Regional Official Plan recognizes the ORMCP and Greenbelt Plan Land use designations and designates portions of the subject property as Prime Agricultural land. The Clarington Official Plan conforms to the ORMCP and Greenbelt Plans and recognizes the key natural heritage features outlined in these plans. The Clarington Official Plan also identifies significant woodland on a portion of the property (wooded area north of the proposed station) as well as significant valley lands for the areas directly surrounding the tributaries of Harmony and Farewell Creeks. The current land-use designation is "Utility" and the area is zoned agricultural in the Clarington OP (1996, {April 2012 Consolidation}).

Generally, all of the above noted plans permit utility and infrastructure uses/projects near or within designated features when the need has been demonstrated and it has been determined that there is no reasonable alternatives. Design and construction practices must minimize the negative impacts and disturbance on key natural heritage features or their related functions and improve connectivity. Section 41 of the ORMCP applies to this project for utilities use on lands within the Natural Linkage areas described above which include key natural heritage features or hydrologically sensitive features. The policies set out in the applicable land use plans, require not only the need for a project but a determination that there is no reasonable alternative. The land use plans also require that disturbance to the affected area be kept to a minimum to ensure that key natural heritage and hydrologically sensitive features are protected. In addition, design and construction practices must ensure that any adverse impacts are minimized so that the integrity of the land use plans are maintained.

The Class EA process for the proposed Clarington TS project includes rationale for a technically preferred location. Hydro One has determined that there is only one reasonable alternative location for the Clarington TS from a technical and economic perspective and is proceeding to implement the Clarington TS in accordance with the recommendations of the Ontario Power Authority (OPA). The ESR describes in detail the rationale and technical issues regarding the limitations of locating a transformer site. The proposed site was selected in 1978 and expropriated for the purpose of a transformer station. It should be noted that CLOCA's review is not focused on the rationale for selecting the subject site, but will focus on the key natural heritage features related to the technically preferred site and other matters under the jurisdiction and mandate of the Conservation Authority.

**General Comments:**

The Class EA Process for the proposed Clarington TS project includes an assessment of the existing natural and social environment and their sensitivity to the proposed project. A prediction of potential effects, identification of mitigation measures as well as public and agency consultation was also undertaken. The ESR provides a breakdown of the key Natural Heritage



Features as they relate to the PPS, ORMCP, Greenbelt plan and Regional/local municipal official plans. CLOCA recognizes that Hydro One Projects are exempt from Municipal Approvals (as authorized under section 62 of the Planning Act) if approval is obtained under the Environmental Assessment Act.

CLOCA was provided with the following background information prior to the release of the Draft ESR in November:

- Natural Heritage Existing Conditions Report (dated August 22, 2012, prepared by Stantec Consulting)
- Draft Geotechnical Report (dated June 19, 2012 as prepared by EXP)
- Borehole Logs completed by Inspec-Sol, November 2012
- Memorandum to the Ministry of Natural Resources regarding Species at Risk (Endangered Species Act - Butternut trees and Proposed Mitigation), dated October 18, 2012.
- Twelve (12) separate deliverable items (i.e. memos, grading plans, plant lists, conceptual layout etc.)

None of the above noted information is provided in the appendices of the draft ESR and there is little reference in the Draft ESR made to the above noted reports/information provided to CLOCA. In addition, groundwater monitoring wells and geotechnical assessments were still being undertaken on the subject site for the proposed reconfiguration of the transmission lines immediately before and after the release of the draft ESR. The ESR (Section 3.1.3, pg. 43) makes reference to the installation of three monitoring wells; however there is no comprehensive background report on Hydrogeology for the proposed transformer site or for the proposed transmission line re-configuration as outlined in Section 5.0.

The proposed station is approx. 280 m X 600 m and is located within the headwaters of the Harmony Creek watershed and immediately east of the Farewell Creek Watershed. CLOCA would like to ensure that a minimum 30 metre setback from the Harmony Creek tributaries is maintained as much as possible. Protection of the Greenbelt Natural Linkage Areas and ORMCP Natural Linkage Areas must be considered in the context of ensuring connectivity of the valley lands and natural wooded areas that surround the proposed transformer station. The northwest corner of the proposed station is shown to encroach within approximately 22 metres of the toe of the slope for the grade change to the station elevation. CLOCA will require buffer strip plantings (native species) within any areas where the station encroaches the existing valley lands associated with the tributaries of Harmony Creek. In addition, CLOCA will commit to working with Hydro One on all restoration plantings proposed for the station site and transmission line work where vegetation removal may be required.



The main access road is proposed from Townline at the southwest corner of the project site. Langmaid road is discussed as a possible alternative; however CLOCA does not support access to the site via Langmaid road. Access from Langmaid road would require considerably more disturbance as this route to the proposed station is much longer and requires a watercourse crossing. Access from Townline road would be much shorter and does not require a watercourse crossing.

**Section 5.3 Alternative Methods, Connection of Existing 230 kV Transmission Lines to Station:**

In addition to the proposed transformer station, the ESR outlines the alternatives proposed for the configuration of existing 230 kV transmission lines around the perimeter of the proposed station. While we would like to see the entire woodland and valley land areas protected, we understand the limitations and complexity of relocating the existing transmission lines and therefore can support the proposed preferred Alternative 1 provided that restoration plantings are completed in a 2:1 ratio for the remedial planting area and all provisions for butternut restoration are completed in accordance with Species at Risk requirements set forth by the Ministry of Natural Resources.

**Section 7.2 Natural Environment, Section 7.2.1, Key Natural Heritage Features:**

**Significant Woodlands:**

A significant woodland (approx. 4.7 ha) is located within close proximity of the proposed transformer station. This area is designated as significant (Clarington OP) & a key natural heritage feature in the ORMCP & Greenbelt Plan. Hydro One is proposing to remove vegetation (i.e. approx. 1.5 ha area) to facilitate reconfiguration of the 230 kV transmission line work. CLOCA will require detailed plans on all aspects of work in this area including restoration plans at the suggested 2:1 planting ratio to ensure that the vegetation replacement area meets or exceeds a 3.0 ha area. CLOCA will also commit to working with Hydro One and the Ministry of Natural Resources to assist with providing information and input on any Species at Risk issues that may arise as a result of the proposed restoration efforts.

**Significant Valleylands:**

The proposed project does not affect Farewell Creek and its tributaries, however the transformer station and proposed transmission line work will impact areas adjacent to the Harmony Creek valleylands along the west and north sides of the proposed station. CLOCA will review construction and grading plans at the detailed stage and will require strict adherence to erosion and sediment control plans required for all areas adjacent to the Harmony Creek valleylands.



**Significant Wildlife Habitat:**

The ESR states that "no animal movement corridors are known to exist", however according to CLOCA's Black/Harmony/Farewell Existing conditions report, the site contains both landscape and local corridors. Landscape corridors are defined as "major movement routes within the watershed that connect core areas and/or are robust enough to be sustainable as habitat units themselves". They typically follow linear features such as creeks and valleys, and can be composed of a series of independent habitats that allow wildlife to "hopscotch" across the landscape." Local corridors are defined as minor movement routes within the watershed that help to connect habitat patches into a continuous series. They are often associated with creek valleys and typically function at a sub-watershed scale. They function with landscape corridors to connect the smaller habitats to the larger ones." As part of the development of the Natural Heritage System, a landscape level analysis was conducted and found that both landscape and local corridors are present on the project site within the Grandview sub-watershed and the Farewell watershed. CLOCA staff welcome further discussion on this and request more detailed information as to why animal corridors were determined not present on site. Potential restoration opportunities should be explored further to enhance these animal movement corridors.

**Wetlands:**

The ESR and Natural Heritage Existing Conditions Report (Stantec, 2012) indicate that there are no Provincially Significant Wetlands on the subject site. CLOCA concurs with these findings, however there are small wetland pockets located immediately east of the woodland area (i.e. northeast side of the proposed transformer station and adjacent to the forested area in the northwest portion of the subject property. These pocket wetlands do provide some ecological functions and should be maintained in their current state as much as possible. Current agricultural practices in the fields adjacent to these wetland features (with the exception of the forested areas) continually disturb the soil and vegetation and therefore prevent the establishment of a natural buffer. CLOCA would like to see the establishment of a larger natural buffer between the pocket wetland areas and adjacent agricultural fields. CLOCA will provide additional input at the detailed design stage regarding improvements and enhancement of natural buffer areas.

**Species at Risk:**

Species at Risk (SAR) matters are the responsibility of the Ministry of Natural Resources (Endangered Species Act), however CLOCA will assist the Ministry and Hydro One in the review and implementation of restoration efforts related to SAR if required.





**Hydrology:**

CLOCA would like to ensure that any watercourse crossings within the Harmony Creek valleylands/tributaries are kept to a minimum. This would apply to any temporary as well as permanent crossings. CLOCA will review all watercourse crossing plans at the detailed design stage and issue the requisite approvals accordingly (i.e. Fisheries Act review/ Hydro One's MOU with Conservation Authorities as outlined below).

**CLOCA Approvals:**

CLOCA currently has a "Level 3 Agreement" with the Department of Fisheries and Oceans to review and assess projects on behalf of DFO under the Fisheries Act. The tributaries of Farewell and Harmony Creeks that cross the subject site contribute to fish habitat downstream and provide indirect seasonal habitat during higher flows. The reaches of Harmony Creek adjacent to the proposed station are considered fish habitat. In addition, Farewell Creek, further to the east of the proposed station is also considered fish habitat as per the Fisheries Act. All works in or adjacent to the above noted tributaries will be reviewed and assessed accordingly within the context of the Fisheries Act. Mitigation and/or compensation measures will be required for any watercourse crossings and any additional works that may affect fish habitat. CLOCA will issue the applicable Letters of Advice to ensure that all aspects of the fisheries act are addressed appropriately for this project.

Conservation Ontario signed a Memorandum of Understanding (MOU) with Hydro One in March of 2011. CLOCA will require that Hydro One follow the requirements outlined in the above noted MOU, particularly Appendix B – Best Management Practices. Hydro One Networks Inc. is considered a Crown Corporation and is therefore exempt from the permit requirements pursuant to Ontario Regulation 42/06 - Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses.

**Stormwater Management:**

CLOCA will review all aspects of stormwater management for the proposed project. Please refer to CLOCA's Stormwater Management Guidelines for further reference. See CLOCA's web-site for further reference: (link noted below):

<http://www.cloca.com/resources/Technical%20Guidelines%20for%20Stormwater%20Management%20Submissions%20-%20March%202010.pdf>



**Specific Comments:**

**Executive Summary; Project Consultation, pg. ES – 3:**

In addition to the two PICs held, a Community Information Meeting was also held on September 11<sup>th</sup>, 2012.

**Section 3.1.3 Hydrology and Hydrogeology, pg. 31**

The ESR states that there are “four points of defined surface water discharge from the site boundaries including two intermittent watercourses.” According to CLOCA’s drainage layer, as depicted within the Black/Harmony/Farewell Existing Conditions Report, there are additional drainage features not addressed in the ESR which are also part of CLOCA’s Natural Heritage System. CLOCA, in attendance with staff from Hydro One, visited the site on Thursday November 22<sup>nd</sup> to confirm these drainage features. The creek emanating from the wetland to the north was present but not entirely channelized. CLOCA’s BHF Existing Conditions also showed another creek travelling along the hedgerow to the north; however this creek system was not present. The ESR should reflect the existence of the creek emanating from the wetland in the north.

Prior to a review of the Draft E.A. study findings, CLOCA reviewed the conditions at the site utilizing internally available geological and hydrogeological mapping products and reports. CLOCA also reviewed existing well records and site specific borehole records provided in the Geotechnical Report completed in June 2012 by EXP. CLOCA staff also participated in a site walk in November to confirm desktop analyses and findings.

Staff suggests that the report should include a map to show the overlay of the ORM planning boundary and the physiographic region/surficial geology for clarity.

CLOCA staff concurs with the geological and hydrogeological description of site conditions presented in the report. Surficial geology mapping indicates that the site is covered by sandy salty till materials (Halton till). The site is located on the south slope physiographic region and is within the ORM Planning boundary. The surficial tills are in the order of 10 to 30 m thick at the site as confirmed by water well records, geotechnical boreholes and completed cross sections. No significant groundwater recharge areas (SGRAs) have been delineated on the site. Vulnerability mapping shows a small area near Lang maid Road associated with expected alluvial deposits along the seasonal stream. These deposits are not evident on surficial maps or in the borehole information.

Based on the data available, CLOCA staff agrees with the groundwater findings outlined in the ESR.



**Second Paragraph, pg. 35:**

CLOCA staff walked the site on November 22<sup>nd</sup>, 2012 and observed no groundwater seepage. Standing water was observed but believed to be surface water or discharge from tile drainage common in the area.

**Second Paragraph, pg.36:**

Paragraph 2 suggests an interpretation of 3 layers; two tills separated by a dense sandy silt while paragraph three indicates "sandy silt till extending from surface to the base of the boreholes at 10 to 15 BGS. This is confusing. Staff suggests that it be clarified that these isolated seams of salty sand are more the exception than the rule.

**Last Paragraph, pg. 36**

It should be made clear that there are no delineated vulnerable areas on the footprint of the transformer station versus the site. The mapping shows a small area of vulnerable materials but this material is associated with previously mapped (expected) alluvial deposits rather than field verified data.

**Pg. 41:**

The report discusses water well records in the vicinity of the proposed station and speaks to "average" screened depths, however Table (3-4) does not show the screened depth information. Please provide this information in order that the reader can identify the "three remaining wells" discussed. In addition, this paragraph should be re-written to clarify the thickness of the aquitard (surficial materials) when compared to the depth of the wells. Staff suggest that this section discuss the wells in metres BGS versus elevation AMSL for the sake of clarity and public review, particularly in relation to the 3 remaining shallow wells.

**Section 8.0 Monitoring Program, pg. 179:**

It is suggested that Hydro One conducts pre-construction water level and water quality sampling for on-site monitoring wells as well as sampling for area residents and provide this data as baseline conditions.

Monitoring of all wells is also recommended during and after construction of the transformer station and transmission line re-configuration work. The post-construction monitoring program should be carried for a minimum two year period after completion of all site activities. This work should include water level and water quality monitoring for down-gradient site and boundary monitoring wells. Monitoring should align with shallow water table flow path data ensuring that down-gradient boundaries are adequately covered.



**Fish and Aquatic Wildlife Habitat:**

CLOCA staff first visited the subject property in the summer of 2002 investigating potential fisheries assessment sites as part of the Aquatic Monitoring Program. No suitable sites were selected due to the fact that the creek was dry. The closest site (H305; June 7<sup>th</sup>, 2002) that was sampled within this sub-watershed was located immediately upstream (north) of Conlin Road and no fish were caught and later in the summer the site was dry.

In 2005 CLOCA staff undertook fisheries assessments upstream of Taunton Road within the subject sub-watershed. Through sampling (site H306) it was discovered that the creek was completely dry upstream of the stormwater management facility in the area. The stormwater management facility located adjacent to the site was the only source of baseflow for this section of Harmony Creek at the time of sampling. CLOCA staff were also involved with the review and construction of the new Conlin Road bridge (located downstream of the subject site) during 2011. A site visit on July 19<sup>th</sup> confirmed that the creek was not flowing at this location although there was a pool of water on the upstream (north) side of the bridge. No fish were caught during the required fish rescue portion of the bridge project.

**Specific Fisheries Comments:**

**Figure 3-5: Watercourses and Catchment Areas, pg. 34:**

Figure 3-5 is missing a small tributary located between reaches 1-4 and 1-5 on the south branch. Please refer to CLOCA's drainage layer as previously provided. Ground truthing of the watercourses was conducted by CLOCA staff during a site walk on November 22<sup>nd</sup> and confirmed the presence of defined bed and bank areas for these areas.

**6.2 Construction Phase, Transmission Lines, page 146:**

The MNR timing window for in-water works in this area of Harmony Creek is coldwater (July 1st to September 15th); however, currently, there is a substantial barrier downstream of this location (upstream of Harmony Road; please refer to the 2008 Aquatic Monitoring Report.) that prevents most fishes including migratory Rainbow Trout from accessing this reach. Any works conducted outside of this window must mitigate any impacts. Management recommendations for this fishery can be found in the Central Lake Ontario Fisheries Management Plan (CLOCA/MNR 2007).

**Section 7.2 Natural Environment:**

Cross Reference - Figure 3-5: Watercourses and Catchment Areas outlined on pg. 34:



- Catchment A, Reach 1-3 (North Branch), 672686 m E, 4873493 m N:  
Restoration opportunities should be explored within this headwater tributary, i.e., riparian plantings. Currently, this section is being mowed.
- Catchment D, 673051 m E, 4872263 m N:
- Restoration opportunities should be explored within this headwater tributary, i.e., riparian plantings.

There also appears to be potential restoration opportunities located on private lands located north of Concession 7 along Langmaid Road. North of the Clarington TS property along the Farewell Creek there appears to be approximately four off-line ponds where thermal mitigation may be possible. Also, along this section it is apparent that riparian cover could be improved along the creek. Within the Farewell Creek watershed approximately 30 km of stream is in need of riparian planting in order to meet EC 75% guidelines (CLOCA/MNR 2007).

Generally, CLOCA staff agrees with the findings and conclusions outlined in the fish and aquatic habitat sections of the ESR as they are consistent with results from CLOCA's long-term Aquatic Monitoring Program. CLOCA staff have identified a number of areas (noted above) that should be explored further with regard to restoration opportunities within and adjacent to the Clarington TS property.

#### **Natural Heritage:**

**Section 5.3.2 Description of Alternatives pg. 134; Table 5-1: Environmental Factors for Alternative Evaluation and Comparison pg. 138; 6.2 Transmission Lines, pg. 146 & 7.2.1 Species at Risk Habitat pg. 157:**

In subsection 'Alternative 1 -- West side of station through southern portion of woodland' and in section '6.2 Transmission Lines' it states that 4 retainable butternuts will be removed, and in table 5-1 it states that 5 retainable butternuts will be removed, while section 7.2.1 states that fewer than 10 retainable butternuts will be removed. There is a lack of consistency that needs to be addressed as to the number of retainable butternuts being removed.

**Section 6 - Project Description, pg. 141:**

The Ontario Invasive Plant Council, in partnership with the MNR and Peterborough Stewardship Council has developed a Draft "Clean Equipment Protocol for Industry". CLOCA staff encourages Hydro One and all out-sourced construction staff to follow this protocol during the construction phase and maintenance phases of the project. Following these protocols will help reduce the impacts on the surrounding natural features by limiting the introduction of non-native invasive material to the site.



**Section 7 – Potential Environmental Effects and Mitigation:**

**Section 7.2.1 - Key Natural Heritage Features, Significant Woodlands (Pg. 156, 4<sup>th</sup> paragraph):**

The timing window for breeding birds should state May 1<sup>st</sup> to July 31<sup>st</sup>. (Ref. personal comm. MNR). Please contact Environment Canada (John Fischer, Environmental Assessment Coordinator, Environment Canada) if you require any clarification regarding the Migratory Birds Convention Act and associated timing windows.

While the fisheries and breeding bird timing windows are identified in Section 7 of the ESR, the project schedule (Section 6.5, pg. 148) should reflect that all work will be done in accordance with these timing windows.

**Section 7.2 Natural Environment pg. 156; Significant Wildlife Habitat pg. 157; & Table 7-1: Summary of Potential Effects, Mitigation Measures and Residual Effects pg. 175-6:**

CLOCA and Hydro One staff met at CLOCA head offices on October 26<sup>th</sup> and on-site November 22<sup>nd</sup> to discuss, in part, CLOCA's Natural Heritage System (NHS) and potential restoration opportunities. Comments were sent to Hydro One staff on November 13<sup>th</sup>, 2012, stating that a minimum of 1:1 compensation for impacting CLOCA's NHS will have to be met. The Draft Black/Harmony/Farewell Watershed Plan is available on the CLOCA website. The ESR should reflect these comments and Hydro One's commitment to the restoration of the NHS impacted by this project.

**Section 7.3.2 Agricultural Resources:**

This section states that the cultivated land affected is approximately 16.4 ha; however this number does not reflect the land that will be restored as a result of the impacted Natural Heritage System (NHS). This section should be changed to address the restoration commitments of Hydro One regarding the impacted NHS.

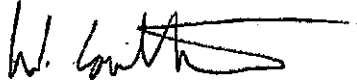
Monitoring of lease agreements should also be explored to ensure the maintenance and preservation of any restoration work done as part of Hydro One's restoration compensation commitments.



**Central Lake Ontario Conservation**

We trust that these comments will be addressed as this project moves forward. Thank you for providing the opportunity to comment on this project. We look forward to working with Hydro One in the future. Please feel free to contact the undersigned if you have any questions or require any additional information pertaining to these comments.

Yours truly,



Warren Coulter  
Environmental Engineering Analyst

WC/ms

cc: Doug Magee, Senior Environmental Planner, Environmental Services & Approvals,  
Hydro One Networks Inc.  
Chris Strand, Fish Habitat Biologist, DFO, Peterborough  
Bohdan Kowalyk, MNR Aurora District Office  
Warren May, Biologist, MNR, Aurora District Office  
David Crome, Director, Planning Services, Municipality of Clarington  
Perry Sisson, Director, Engineering & Field Operations, CLOCA  
Chris Darling, Director, Development Review and Regulation, CLOCA  
Ian Kelsey, Aquatic Biologist, CLOCA  
Diana Shermet, Natural Heritage Resource Analyst, CLOCA  
Kathy Luttrell, Terrestrial Resource Analyst, CLOCA



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**Brian McCormick**  
**Manager, Environmental Services & Approvals**

April 18, 2013

Adam Sanzo  
Project Evaluator  
Ministry of the Environment – Environmental Approvals Branch  
2 St. Clair Avenue West  
Toronto, Ontario  
M4V 1L5

**Re: Class EA for the proposed Clarington Transformer Station in the Municipality of Clarington**

Dear Mr. Sanzo,

We have reviewed the 56 Part II Order requests received regarding the Clarington Transformer Station. Hydro One Networks Inc. (Hydro One) has responded to all of the requestors. The letters provided comprehensive answers to questions raised and provided the necessary background about the project. The issues identified during the 30 day review period were consistent with those identified during the Class EA process and are addressed in the draft ESR.

In October 2011, the Ontario Power Authority recommended that Hydro One develop an implementation plan to enable a corresponding amount of power to be transmitted to one million customers in the East Greater Toronto Area when the Pickering Nuclear Generating Station (NGS) is retired. Pickering NGS is approaching its final years of operation and Hydro One must be prudent and have the station in place in advance of the facility's retirement.

Following the recommendation from Ontario Power Authority, Hydro One initiated the steps to plan and execute a Class EA. Since that time, Hydro One has conducted a Class EA which has included rigorous field studies and testing, as well as, extensive consultation with the community. Hydro One's project team is confident that we have fully complied with the requirements set out by out by the approved Class EA process. Our consultation with the community has included:

- Initial Notification and Final Notification of the project
- Two Public Information Centres (PIC)
- Community Information Meeting
- Interest group meetings
- Notification and consultation via public notices, letters, emails, telephone and meetings
- Project website
- Dedicated project contact person
- Responses to the letters issued during the ESR Review Period
- Follow-up meetings briefing elected officials (provincial and municipal) plus provision of briefing materials (i.e. subsequent to receiving Part II Order requests).



Enclosed, you will find a summary of all the issues received, Hydro One's response to each issue and the date(s) associated with the communication of our responses.

Hydro One does not believe that further consultation is warranted or in fact, will be helpful. More extensive consultation and study will not bring forward meaningful information or analysis. The Hydro One Class EA process is thorough and has a long standing successful history. This process was fully consistent with past practice. The station will utilize conventional and proven technology and is similar to other operating stations (e.g. Parkway TS, located near Highways 404 and 407). We are very confident about effects predictions and the effectiveness of mitigation methods described in the draft ESR.

Hydro One, therefore, respectfully requests that the Part II Order requests be denied.

Please do not hesitate to contact me or Mr. Doug Magee, Senior Environmental Specialist, at (416) 546-6596 if you have any questions relating to these or other matters.

Sincerely,



Brian McCormick  
Manager, Environmental Services & Approvals

**Hydro One Networks Inc.**  
483 Bay Street  
TCT6, South Tower  
Toronto, Ontario, M5G 2P5  
www.HydroOneNetworks.com

Tel: (416)-345-6597



**Brian McCormick**  
Manager, Environmental Services and Approvals

August 28, 2013

Adam Sanzo  
Project Officer, Environmental Assessment and Approvals Branch  
Ministry of Environment  
2 St. Clair Ave. West  
Toronto, ON M4V 1L5

**RE: Enniskillen Environmental Association Hydrogeological Concerns Report**

Dear Adam,

Thank you for sharing the Hydrogeological Concerns report commissioned by Enniskillen Environmental Association (EEA). Hydro One would like to take this opportunity to present our comments regarding this Report and provide information regarding plans for further investigations that have been developed to address the groundwater and surface water monitoring program that Hydro One has committed to undertake.

1. Hydro one believes that a limited desktop study submitted without discussion so late in the EA process should not be a cause for delay of this project. Had the authors participated earlier and taken the time to discuss our findings with our technical experts and other review agencies, this would be readily resolved. For this reason, we respectfully request that the Ministry disregard this report as being irrelevant to the Clarington TS Class EA process.
2. It is important to note that the draft report was prepared at CLOCA's request. It is not part of the Draft ESR submission. It is our understanding that CLOCA was seeking more detailed technical information which was outside the scope of our Class EA process. We further understand that this request from CLOCA was prompted by queries from the project's opponents.
3. Both CLOCA and the Region of Durham have reviewed this information and, after requesting minor clarifications, both organizations have supported our position. We are confident about the expertise of our technical experts and have reviewed their studies extensively. Third-party experts at from Durham and CLOCA have also reviewed this information and conclude that no further investigations are warranted.

4. Hydro One does not support the assertion that elevation to an individual EA is the only means by which this issue can be addressed. We are confident that technical experts can reach a consensus on these matters. The EEA consultant's findings are reliant on a desktop review of draft documentation which poses severe limitations with respect to their findings. In our view, this is not how EA processes were designed.
5. The development of an SCM as stated in this review is a USEPA (1993) obligation which appears to be associated with the US Superfund Projects and has no status in Ontario. The reviewers appear to have based most of their comments on USEPA requirements. In our view, there are different approaches to compliance with *EA Act* requirements which also allow for informed decisions to be made. Hydro One reviewed the available hydrogeological information for this area and has also advanced 28 boreholes during two separate geotechnical investigations which validate the data. The results of the field investigations support the predominance of the Newmarket Till and it is our opinion that a more costly and more intrusive program is not warranted and would be of limited value. Hydro One has consulted with CLOCA throughout the Class EA process to ensure that we undertook proper and addressed the hydrogeological properties of this site. Two CLOCA hydrogeologists have conducted a field visit to the project site and have reviewed Hydro One's results. The CLOCA hydrogeologists concluded that Hydro One's findings supported their interpretation of the site conditions and did not state that any further investigation or assessment was required.
6. The EEA report mentions frequently that the information relied upon by Hydro One (such as vulnerability and recharge potential) are regional in nature (Point 8) and therefore subject to inadequacy. This conflicts with CLOCA's assessment.
7. The EEA-commissioned reviewer (Point 7) refers to the project being subject to "an application for development" and proceeds to state what is required. Hydro One is designated as Utility within the Municipality of Clarington OP and utility infrastructure both within the ORMCP and Greenbelt Plan. Utility infrastructure is allowed (subject to conformance with Section 41 of the ORMCP) and is not subject to "an application for development" and the associated requirements. Consequently, the reviewer's position on this aspect is erroneous.
8. As previously stated, the EEA-commissioned analysis document is a limited desktop review of a draft technical report. Had the reviewers visited the project site or communicated with Hydro One, they would have noted that the wetland area is almost entirely located within an existing Hydro One transmission corridor and that BH11-12 is located at the edge of this wetland. A tower base in this location will not alter any flow of surface or groundwater to this wetland. This is verified by the fact that there are existing towers located within the wetland and the wetland is continuing to function.

9. Point 5 indicates that “more evidence of oily water will not be released to the environment is required in an SCM”. The EEA consultant goes on to recommend a costly model to address a highly unlikely event. This is the basis for our contention that the SCM provides no added value to our assessment and is not a requirement of the Class EA process. We have presented a multi-layered approach to containment design, including the transformer rupture plate features, the sizing of the secondary containment below the transformer and the oil water separator. These features, combined with an emergency response plan and remote monitoring and warning systems and alarms will ensure that mineral oil is not released to the environment.
  
10. Hydro One, as noted earlier, committed in the ESR to implement a monitoring program to assess shallow groundwater quantity and quality prior to, during, and following construction. The details of this monitoring program were not presented in the ESR but were in development. Hydro One would have discussed the elements of our intended Shallow Groundwater and Surface Water Monitoring Program which we would likely have resolved many of the concerns expressed. The following briefly outlines Hydro One’s surface and shallow groundwater monitoring proposal:
  - The *installation of shallow* groundwater monitoring wells screened across the groundwater table (screened interval between approximately 1-3 m depth);
  - The installation of intermediate groundwater wells (screened interval between approximate 10 – 15 m depth);
  - Installation of drive-point piezometers located in the wetland to the north and in the outflowing creek to the west of the of the proposed grading area;
  - Residential well monitoring of private wells adjacent to the site, pending individual well owner participation agreement;
  - Water level monitoring will be completed in each of the monitoring wells and accessible private wells using pressure transducers, allowing continuous (hourly/daily) data collection;
  - Hydraulic testing (rising / falling head testing) of existing and new groundwater monitoring wells;
  - Water quality sampling in each of the above wells and at surface water monitoring locations is to be completed prior to and during construction;
  - Continuation of well monitoring, including private wells, for a minimum period of 2 years following completion of construction;

- Water quality parameters will include general chemistry and applicable hydrocarbons (during construction monitoring sampling events), and bacteriological parameters (only for private wells).

Hydro One has also committed to working with CLOCA and EEA, including notifying EEA of on-site monitoring events, and inviting an EEA representative to observe monitoring events, if desired. We have also offered to share Hydro One's interpretations of the results of the monitoring program with EEA.

The above monitoring program will make use of existing groundwater monitoring wells, while supplementing these with newly installed wells that will allow for shallow and intermediate depth groundwater monitoring. With respect to the comments provided by Cherry (2013), the above monitoring program will quantitatively identify:

- Shallow groundwater water level across the site;
- Shallow groundwater quality;
- Intermediate groundwater level across the site;
- Intermediate groundwater quality;
- Shallow – intermediate groundwater gradients (identify areas of upward, neutral, or downward groundwater movement);
- Shallow and intermediate depth hydraulic conductivity, including variations in hydraulic conductivity associated with the different geologic materials identified during previous and upcoming drilling investigations;
- Surface water –groundwater interaction (gradients);
- Continuous (hourly) groundwater level monitoring will allow for observation and calculation of seasonal variations in surface water and groundwater gradients;
- Potential changes in shallow groundwater elevation associated with the cut portion (east side) of the grading area, including the potential radius of influence and potential for private well interference.

The above proposed monitoring program will be adaptive, in that additional analyses or monitoring events may be implemented as determined by Hydro One and its environmental consultant and technical experts depending on the monitoring results. For example, should sand lenses be observed in multiple wells and are interpreted to be potentially continuous across the property, hydraulic

testing may include pumping of a well in order to record potential hydraulic connections between the wells, and possibly across portions of the property.

A more extensive and costly hydraulic testing program (pumping test) is not recommended if many of the monitoring wells are found to have encountered geologic material with low hydraulic conductivity, as they may not support a sufficient pumping rate for the drawdown to be detected in adjacent monitoring (observation) wells.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian J. McCormick". The signature is stylized and somewhat abstract, with several loops and a long vertical stroke at the bottom.

Brian J. McCormick  
Manager, Environmental Services & Approvals  
Hydro One Networks Inc.

**Appendix B11: Minister's Decision Regarding Part II  
Order Requests**

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Ministry of the Environment

Ministère de l'Environnement

Office of the Minister

Bureau du ministre

77 Wellesley Street West  
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**JAN 02 2014**

ENV1283MC2013-2616

Mr. Doug Magee  
Environmental Planner  
Hydro One Networks Inc.  
483 Bay Street, South Tower, 6<sup>th</sup> Floor  
Toronto ON M5G 2P5

Dear Mr. Magee:

Between November 15 and December 17, 2012, I received 56 Part II Order requests from local residents, local environmental groups, 18 school children from a local school and two Members of Provincial Parliament that Hydro one Network Incorporated (Proponent) be required to prepare an individual environmental assessment for the proposed Clarington Transformer Station Class Environment Assessment (Project), located in the Municipality of Clarington.

I am taking this opportunity to inform you that I have decided that an individual environmental assessment is not required. This decision was made after giving careful consideration to the issues raised in the request, the Project documentation, the provisions of the Class Environmental Assessment for Minor Transmission Facilities (Class Environmental Assessment), and other relevant matters required to be considered under subsection 16(4) of the Environmental Assessment Act. The reasons for my decision may be found in the attached letters to the requesters.

Despite my not requiring an individual EA be prepared, in reviewing the requests I noted that there are concerns with respect to this project which do warrant that further studies and consultation be undertaken as the Project proceeds into detail design and construction. Therefore, to ensure that the environment is protected, I am imposing the following conditions on the project:

1. Prior to construction the Proponent shall submit a Groundwater Monitoring Plan to the Regional Director in Central Region for review and approval. The Plan shall be in accordance with the Hydrogeological & Hydrologic Assessment Report prepared for the Project by Stantec (2013) and shall include water level and quality sampling from on-site wells and adjacent private wells in order to document pre and post construction conditions to confirm no impacts. Once approved, the final report shall be posted on the Proponent's website.



2. As part of the Ontario Water Resources Act Application for Sewage Works, the Proponent must submit to the Director of the Environmental Approvals Branch a Contingency and Pollution Prevention Plan for the Project in accordance with the ministry's requirements.
3. As part of the Environmental Compliance Approval for noise, the Proponent shall prepare a detailed Acoustic Assessment Report and submit it to the Director of the Environmental Approvals Branch for review as part of the application. The Acoustic Assessment Report must document all sources of noise at the facility, as well as any proposed noise control measures, and demonstrate that the Project is capable of operating in compliance with the applicable sound level limits at all affected Points of Reception.
4. For information purposes, the final Acoustic Assessment Report and Contingency and Pollution Prevention Plan shall be posted on the Proponent's website upon submission of the Environmental Compliance Approval application.
- 5.1 The Proponent shall be responsible for the formation of a Community Liaison Committee, should members of the public or other parties be interested in participating. The CLC shall be established by the Proponent within 6 months of the Minister's decision on the Part II Order requests for the Project. The CLC shall be established for the purposes of disseminating and exchanging information and monitoring results relevant to the project during detailed design and construction, and discussing any issues or concerns raised by CLC members.
- 5.2 The Proponents shall invite representative(s) of the Enniskillen Environmental Association and members of the public that expressed interest in the Project. Meetings shall be held as may be required or on an annual basis until Project operation. A notice of the CLC meeting shall be posted on the Proponent's website two weeks prior to the meeting, and sent to all CLC members.
6. Once Conditions 1-5 have been satisfied, the Proponent shall notify the Director of the Environmental Approvals Branch.

With this decision having been made, the Proponent can now proceed with the Project, subject to the conditions I have imposed and any other permits or approvals required. The Proponent must ensure the Project is implemented in the manner it was developed and designed, as set out in the Project documentation, inclusive of all mitigating measures, and environmental and other provisions therein.

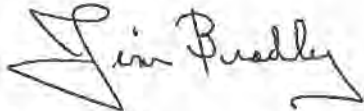
Lastly, I would like to ensure that the Proponent understands that failure to comply with the Act, the provisions of the Class Environmental Assessment, and failure to implement the Project in

Mr. Doug Magee  
Page 3.

the manner described in the planning documents, are contraventions of the Act and may result in prosecution under section 38 of the Act.

I am confident that the Proponent recognizes the importance and value of the Act and will ensure that its requirements and those of the Class Environmental Assessment are satisfied.

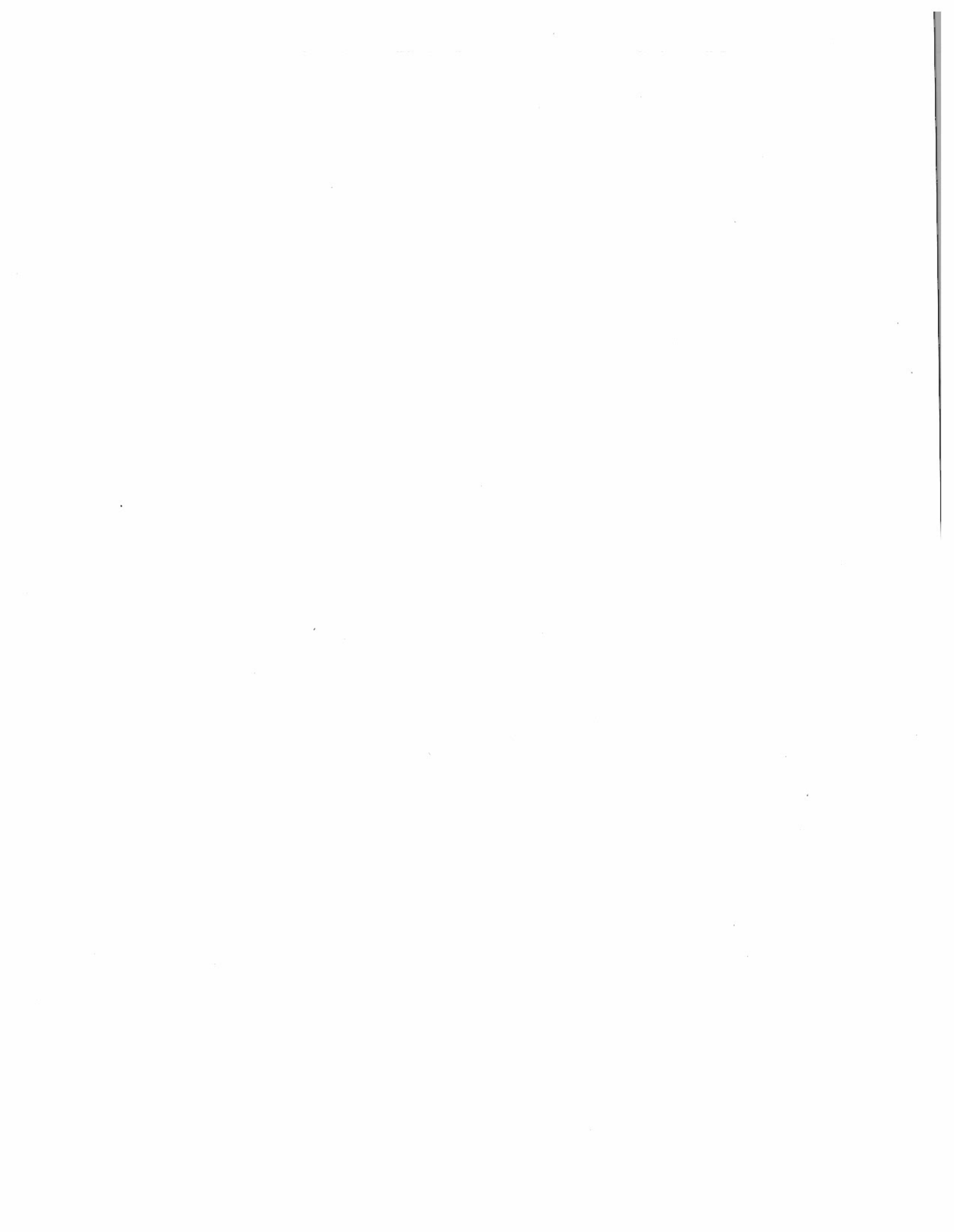
Yours sincerely,

A handwritten signature in black ink that reads "Jim Bradley". The signature is written in a cursive style with a large, stylized initial "J".

Jim Bradley  
Minister of the Environment

Attachment(s)

c: Requestors  
MPP J. O'Toole (Durham)  
MPP M. Harris (Kitchener-Conestoga)  
EA File EA02-06



Ministry of the Environment

Ministère de l'Environnement

Office of the Minister

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JAN 02 2014

ENV1283MC-2013-2616

Mr. John O'Toole  
MPP-Durham  
75 King Street East  
Bowmanville ON L1C 1N4

Dear Mr. O'Toole:

Thank you for your interest in Hydro One Networks Inc. (Hydro One) proposed Clarington Transformer Station (Project). I welcome your comments on this Project.

On December 14, 2012, you requested that Hydro One be required to prepare an individual environmental assessment for the Project. I am taking this opportunity to inform you that based on my review of the Project documentation and the issues you raised, I have decided that an individual environmental assessment is not required.

I am, pursuant to my authority under subsection 16(3) of the Environmental Assessment Act, imposing, by order, conditions on the Project in order to ensure protection of the environment. These conditions will ensure that permits and approvals are obtained, as well as ensuring a Groundwater Monitoring Plan, an Acoustic Assessment Report and a Contingency and Pollution Prevention Plan are prepared. These conditions are outlined in the attached letter to Hydro One.

In making this decision, I have given careful consideration to the Project documentation, the provisions of the Class Environmental Assessment for Minor Transmission Facilities (Class Environmental Assessment), your issues raised in the Part II Order request, and relevant matters to be considered under subsection 16(4) of the Environmental Assessment Act.

Hydro One has demonstrated that it has planned and developed the Project in accordance with the provisions of the Class Environmental Assessment. I am satisfied therefore that the purpose of the Act, "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation, and wise management in Ontario of the environment," has been met for the Project.

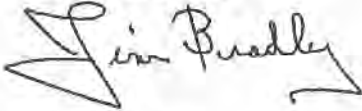
Mr. John O'Toole  
Page 2.

Your outstanding concerns together with the reasons for my decision are set out in the attached table. I am satisfied that the issues and concerns have been addressed by the work done to date by Hydro One, or will be addressed in future work that is required to be carried out.

With this decision having been made, Hydro One can now proceed with the Project, subject to any other permits or approvals required. Hydro One must implement the Project in the manner it was developed and designed, as set out in the Project documentation, and inclusive of all mitigating measures, and environmental and other provisions therein.

Again, I would like to thank you for participating in the Class Environmental Assessment process and for bringing your concerns to my attention.

Yours sincerely,

A handwritten signature in black ink that reads "Jim Bradley". The signature is written in a cursive style with a large, sweeping initial "J".

Jim Bradley  
Minister of the Environment

**Clarington Transformer Station (Project)  
Hydro One Networks Inc. (Hydro One)**

**Ministry's review of outstanding Issues Raised by MPP John O'Toole:**

Issues	Response
<b>Surface Water/Groundwater/Oak Ridges Moraine Impacts</b>	
<p>You have raised concerns that the Project will negatively impact the Oak Ridges Moraine. Specifically, you indicate that the Project will impact the water resources present in the area.</p>	<p>Hydro One has documented its assessment of potential impacts to the natural environment in the Environmental Study Report. With regards to the assessment of existing surface and groundwater resources, detailed geotechnical and hydrogeological assessments were undertaken on behalf of Hydro One throughout the planning process, and reports were included as part of the Class Environmental Assessment documentation. The Project falls within the boundaries of the Central Lake Ontario Conservation Area, and as such Hydro One has worked with the Central Lake Ontario Conservation Authority to determine baseline conditions and potential impacts of the Project on water resources. The Environmental Study Report, in addition to the subsequent hydrogeologic and hydrologic assessment reports, prepared by EXP, Inspec-Sol Inc. and Stantec Consulting Inc. on behalf of Hydro One in November 2012, January 2013 and April 2013, respectively, confirms that the Project area consists of predominantly sandy salty surficial till materials and the soil composition is approximately 10 to 30 metres thick. This data was confirmed through Central Lake Ontario Conservation Authority records and mapping, Ministry of the Environment well records, exploratory boreholes conducted by engineering experts in preparation of the geotechnical reports, and groundwater monitoring wells installed by Hydro One on the Project site.</p> <p>The Environmental Study Report documents that the construction of the transformers will require excavation of approximately 5 metres below the ground surface to install structural supports and the containment systems for transformer oils used by the facility. Hydro One has determined that these structures will be located above the water table, which is at least 10 metres below the surface, and excavation will not directly contact groundwater sources. Furthermore, the hydrogeological studies</p>

Issues	Response
	<p>indicate that the till material in the Project area is considered an aquitard, which will impede surface water recharge or groundwater discharge within the Project area. The Environmental Study Report confirms that there are no surface water springs on the site, and any surface water that is observed is the result of stormwater accumulation that cannot penetrate into the ground due to poor drainage. Central Lake Ontario Conservation Authority mapping shows that the area is not considered an area of significant groundwater recharge or within any Intake Protection Zones. The Central Lake Ontario Conservation Authority advised Hydro One that it concurs with Hydro One's hydrogeological description of the site conditions and the Project's potential impacts on groundwater.</p> <p>Hydro One has documented the potential impacts of the Project on the private shallow and deep wells, located near the facility, in the Environmental Study Report and through the numerous hydrological studies undertaken during the planning process. Ministry of the Environment water well records show that there are 20 nearby private wells, and the majority obtain water from deep aquifers approximately 50 to 100 metres below ground surface. Along with the conclusions made in the Hydrogeology reports that the soil composition will not allow for any leakage into the groundwater, and that private wells are drawing from deep aquifers, in which the groundwater flows from a northwest to south east direction (i.e. the wells are up gradient from the Project), the potential for impacts to these private wells is not anticipated. This conclusion is also substantiated by comments made to Hydro One by the Central Lake Ontario Conservation Authority.</p> <p>In order to confirm the conclusions within the April 2013 hydrogeology and hydrology report, Environmental Approvals Branch staff requested a Ministry of the Environment hydrogeologist to review the report and comment on groundwater impacts. Ministry of the Environment technical staff provided comments on the hydrogeologic and hydrologic assessment report and concluded that it had no outstanding concerns with respect to the construction</p>

Issues	Response
	<p>or operational activities of the Project from a groundwater perspective. Furthermore, staff noted that prior to construction, Hydro One may require a Permit to Take Water from the Ministry of the Environment, which will include an impact assessment for all existing groundwater uses, including the private wells. The ministry will only issue a Permit to Take Water once it can confirm that the Project will not significantly impact any surrounding groundwater sources or uses, such as wells. Based on the review undertaken by the ministry to date, impacts to groundwater are not expected.</p> <p>With regards to surface water, Hydro One has documented the aquatic features that exist within the Project site and how the Project may impact these natural features. The Environmental Study Report confirms that there are no Provincially Significant Wetlands located within or adjacent to the Project site. However, the Environmental Study Report documents that the Project area does fall within the headwaters of both the Harmony Creek (on the west side on the site) and the Farewell Creek (east side of site) tributaries. The assessment of these watercourses confirm that there are points of surface water discharge, which cause flow across the Project site during high rainfall events. The hydrology reports show that these creek systems rely only on overland flow, and are not supported by groundwater in these areas. A stormwater conveyance system is proposed for the Project to direct surface water into the Harmony Creek tributary, located at the north end of the Project site. Also, any clean water that will be discharged from the transformer containment systems (which is the system under the transformer structure designed to prevent the loss of transformer insulating oil from entering the surrounding environment) will also flow through the conveyance system and be discharged. All other oil in the containment systems will be held in tanks, which will act as oil-water separators, and will be collected and trucked away, following all applicable Ministry of the Environment waste removal procedures.</p> <p>Hydro One will also require watercourse crossing permits from the Central Lake Ontario Conservation</p>



Issues	Response
	<p>Authority for the crossing of tributaries of the Harmony Creek and Farewell Creek, in addition to an Environmental Compliance Approval for industrial sewage from the Ministry of the Environment. Both of these approvals will further ensure that impacts to surface water resources will be minimized.</p> <p>To further address the issues raised regarding the possible contamination of the drinking water supply by the oil used in the transformers, Environmental Approvals Branch staff sought comments from Ministry of the Environment Source Protection staff. Upon reviewing the Environmental Study Report and utilizing Source Protection mapping from the Credit Toronto Central Lake Ontario Source Protection Area, Ministry of the Environment Source Protection staff advised that the transformer oil used by the facility is not considered a dense non-aqueous phase liquid (or DNAPL), which is the term used to describe contaminants in groundwater, surface water and sediments. Therefore, the potential for this oil to contaminate the groundwater is not anticipated.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for adequately assessing the potential impacts on the surrounding natural environment. I am also satisfied that aquatic features and ecological resources have been adequately considered in the Project documentation, which has been confirmed by technical staff and the Central Lake Ontario Conservation Authority.</p>
<p><b>Health/Safety</b>          You contend that the Project may impact the health and safety of the local residents in the area.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report shows that Hydro One will use highly refined transformer insulating oil to operate the facility. The Environmental Study Report documents the structures that will contain this oil and the details of how it will separate it from water that will inevitably enter the containment system through the surface water. The Material Safety Data Sheet for the transformer oil confirms that it does not contain toxic pollutants, and Ministry of the Environment Source</p>

Issues	Response
	<p>Protection staff, who referenced the list of the prescribed threats to municipal drinking water (found in Ontario Regulation 287/07) confirm that the oil is not considered a DNAPL which could be harmful to groundwater, should a leak ever occur. However, as described above, the hydrogeology studies undertaken for the Project have concluded that the composition of the soil (i.e. surficial till) will impede surface water recharge or groundwater discharge within the Project area. As such, leakage into the groundwater is not anticipated.</p> <p>Although the transformer facility is proposed to operate automatically without any persons on site, I am satisfied that safety has been adequately considered by Hydro One and that the transformer facility, similar to numerous other facilities throughout the province, will not cause any significant impacts to the surrounding environment in the event of an emergency. In addition to the containment systems described above, spill cleanup and response equipment will be located on site, and control systems will alert Hydro One in the event of an emergency and crews will be dispatched to the site within a short period of time. Hydro One will be required to meet Ministry of the Environment spills requirements, as prescribed in Ontario Regulation 675/98 of the Environmental Protection Act, in addition to completing and submitting an Emergency Response plan when applying for an Environmental Compliance Approval for industrial sewage. This will further ensure that potential impacts to the surrounding natural environment in the event of an emergency will be kept to a minimum.</p> <p>The proposed transformer facilities will be located within the Project site and will be more than 100 metres from the boundaries of adjacent residential properties; as such, any emergency event (i.e. equipment failure) will not directly impact any of these surrounding properties. The Environmental Study Report documents the mitigation measures which will be provided to further reduce the impacts on the surrounding properties. For instance, Hydro One has proposed replacement plantings and extending natural linkages (such as hedgerows on the west side of the</p>

Issues	Response
	<p>site) to provide a visual screening from the surrounding neighbouring properties.</p> <p>Therefore, I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for considering potential impacts to the surrounding natural environment, specifically groundwater, and has adequately documented public safety and emergency management measures.</p>
<b>Natural Heritage Features- Wildlife, Fish, Species at Risk</b>	
<p>You contend that the Project may have potential significant negative impacts to the natural environmental features.</p>	<p>In the Environmental Study Report, Hydro One has documented its assessment of the Project's potential impacts to wildlife, including habitat, fisheries and species at risk.</p> <p>The Environmental Study Report documents that the Project study area includes agricultural fields, woodland areas and dry marsh areas. All of these habitats include terrestrial wildlife, and Hydro One has undertaken field surveys to determine if there are any significant species or habitat present in the area and how the Project will avoid or mitigate the impacts to these resources. Hydro One's investigations and research on the area concluded that the Project site does not include any concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors. The Ministry of Natural Resources, who administer the Endangered Species Act, have been consulted throughout this Project and have been the technical experts that Hydro One has relied on for providing information and comments regarding potential impacts to Endangered Species or Species at Risk. The Ministry of Natural Resources Natural Heritage Information Centre database indicated that there are no Species at Risk that have been recorded on the site since 1989.</p> <p>The Environmental Study Report documents that the Project will require the removal of Butternut trees (less than 10 of the observed 46 according to the Ecological Land Classification of Southern Ontario) to accommodate the transformer equipment and reconfiguration of the existing transmission lines. Hydro One has documented its commitment to restore</p>

Issues	Response
	<p>the species by proposing a 2-1 replanting of butternut in a suitable area within the Project study area. This replanting is consistent with the requirements of a Butternut removal approval that will be required from the Ministry of Natural Resources under section 17 of the Endangered Species Act.</p> <p>According to Fisheries and Oceans Canada mapping, there are no aquatic (fish or mussel) Species at Risk within the Harmony Creek and Farewell Creek Watersheds. The Central Lake Ontario Conservation Authority, who provided comments on the Environmental Study Report, confirms that it currently has a Level 3 Agreement to review and assess projects on behalf of Fisheries and Oceans Canada under the Fisheries Act. Both the watersheds of Harmony Creek and Farewell Creek (which are located on the Project site) are considered fish habitats, and are known to support 33 native species and five introduced species. Hydro One undertook fisheries surveys in both watersheds and due to low water levels, no fish were observed or caught. The Environmental Study Report documents that the Project will require watercourse crossing permits from the Central Lake Ontario Conservation Authority prior to the project being constructed. The Central Lake Ontario Conservation Authority provided correspondence to Ministry of the Environment staff which indicates that it will further consider impacts to fisheries and fish habitat when reviewing the documentation pertaining to the watercourse crossing permits, and will provide input as to whether or not Hydro One will be required to obtain any Fisheries Act approvals.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and subsequent natural features and wildlife species documentation, and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing potential negative impacts to the surrounding natural environment. Further, Hydro One will be required to obtain watercourse crossing permits from the Central Lake Ontario Conservation Authority and approvals from the Ministry of Natural Resources under the</p>

Issues	Response
	Endangered Species Act prior to construction of the Project.
Process	Response- Class Environmental Assessment Alternatives
<p>You contend that the preferred alternative selected for the Project; i.e. on the Oak Ridges Moraine, is not ideal and not suitable for an industrial undertaking such as this. You believe that other alternative locations should be considered by Hydro One, which could avoid significant impacts to the surrounding environment.</p>	<p>As with all Class Environmental Assessments, proponents must document a reasonable range of alternative solutions to the Project need/problem, as well as alternative options to the preferred solution. With regards to this Project, the need or purpose for the undertaking is understood; i.e. to provide additional electrical capacity for the eastern Greater Toronto Area. Upon review of the Environmental Study Report, Ministry of the Environment staff determined that Hydro One did not present its assessment of potential alternative solutions and options for this Project in a manner that was easily communicated to the readers. It was expressed through subsequent documentation appended to the Environmental Study Report, in addition to communications and consultations between Ministry of the Environment staff and Hydro One, that other options were considered prior to selecting the Clarington transformer station option. The sections of the Environmental Study Report that outlined alternatives seemed to imply that only one reasonable option can be considered for this Project; i.e. a transformer station on the Oak Ridges Moraine Hydro One property. The Environmental Study Report states that the Ontario Power Authority originally documented the rationale for a new Oshawa area transformer station in its 2007 Integrated Power System Plan. The Ontario Power Authority subsequently advised Hydro One, through direct correspondence and reports in 2011 and 2012, which are included as part of the Environmental Study Report, that in order to offset the reduction of 3,000 megawatts of electricity flow to the eastern Greater Toronto Area, which will be lost when the Pickering Nuclear Generating Station is retired and decommissioned, and to address reliability issues in this area, a new 500 kilovolt/230 kilovolt transformer station in the Oshawa area would be required, which was based on a technical and economic comparison of potential transmission options. This recommendation</p>

Issues	Response
	<p>and rationale was presented by Hydro One to the Ontario Energy Board in its 2013/14 Transmission Revenue Requirement Application.</p> <p>In order to better understand the planning process and the ultimate decision to select the Clarington transformer station, Ministry of the Environment staff requested that Hydro One provide more clarity and revise and update the sections of the Environmental Study Report which documents the assessment of alternatives, so that it can better explain which alternatives were considered and why certain options were screened out. Hydro One provided revised documentation to Ministry of the Environment staff which is to be included in the final Environmental Study Report. In the revised documentation, Hydro One confirmed that prior to proceeding with the Clarington transformer station alternative, other options were considered but were screened out because they were either economically or technically unfeasible. Specifically, the expansion of Cherrywood Transformer Station, according to documentation provided to Hydro One by the Ontario Power Authority, would not be technically feasible, as the current configuration of equipment would not be able to handle the introduction of two new transformers that are required for this Project. In addition, the Ontario Power Authority indicates that the two switchyards that are currently at Cherrywood would need to be interconnected; however that could cause short circuiting due to the capacity of the existing circuit breaker system. The Ontario Power Authority advised that this option cannot be considered from a technical feasibility aspect. For the Parkway Transformer Station, the documentation concludes that the new 230 kilovolt connections that would be required to connect Parkway and Cherrywood stations (which is the only method of relieving the load of the transformers at Cherrywood and allow the system to function properly) cannot be implemented as the area that the transmission lines would need to be located (i.e. down the Finch transmission corridor), is already fully developed. Therefore, the potential impacts to the existing natural and social environment, along with the significant costs of acquiring a right of way for this</p>

Issues	Response
	<p>infrastructure, does not make this alternative viable in the Ontario Power Authority's opinion. Therefore, this option was also not considered further and was screened out as a potential preferred alternative.</p> <p>Several alternative locations were proposed by the public, and Hydro One assessed these locations and provided reasons in the Environmental Study Report as to why they could not be considered as potential preferred alternatives for this Project. Specifically, these alternatives included the possibility of constructing transformer facilities on the sites of the Pickering Nuclear Generating Station, the Darlington Nuclear Generating Station or the Wesleyville Generating Station. Hydro One determined that these three options would not be viable as they all pose significant technical or economic feasibility issues. Each of these sites (unlike the Clarington site) do not have both 500 and 230 kilovolt transmission lines, which are required for a transformer station. In order to install these lines, significant impacts to the surrounding environment would be required, due to land expropriation, and would also require significant costs. Furthermore, much like the alternative of expanding Parkway Transformer station, which was also screened out, these options have technical feasibility issues relating to short circuiting and would require approvals from the Ontario Energy Board for the installation of new transmission lines. As such, these sites were not considered as potential preferred alternative locations.</p> <p>In addition to including transformer stations at existing generating facilities, two other alternative sites were proposed by the public; lands near Cherrywood Transformer station and at Rundle Road/Taunton Road. Much like the other alternatives considered, these two sites were also discussed in the Environmental Study Report and not considered as viable options as they either do not have the infrastructure required to build a transformer station, which would require significant costs and impacts to surrounding environment due to property acquisition and potential destruction of natural features, or are</p>

Issues	Response
	<p>technically unfeasible and will cause electrical transmission failures or short circuiting.</p> <p>The preferred alternative selected, i.e. the Clarington Oak Ridges Moraine Hydro One property lands, was considered ideal for this type of facility as it possessed all the electrical infrastructure required, was previously acquired for this purpose, would require no additional property expropriation, is a permitted use under the Oak Ridges Moraine Conservation and Greenbelt Plans, and no significant environmental impacts are predicted.</p> <p>Although it appears in the Project documentation that only one alternative was considered and screened by Hydro One through the Class Environmental Assessment process, the Environmental Study Report and accompanying documentation from the Ontario Power Authority shows that several alternatives were considered for the Project prior to moving forward with the Clarington site. Also, Hydro One has indicated that the primary reason for selecting this site was because it is designated for this particular use, it is already owned by Hydro One and would not require any private property access or expropriation, and it makes use of existing infrastructure.</p> <p>Therefore, I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing a reasonable range of alternatives for the Project.</p>
<p><b>Class Environmental Assessment</b></p> <p>You contend that this Project should not be undertaken under a Class Environmental Assessment; that it is too large and contentious to be determined a pre-approved activity.</p>	<p>The Class Environmental Assessment outlines the requirements for an undertaking to be considered under this pre-approved planning process. In addition, the Class Environmental Assessment specifies which types of undertakings, in this case electrical distribution facilities, can be considered and which must undertake a higher level of assessment; i.e. an individual environmental assessment.</p> <p>For this Project, Hydro One has confirmed and documented that this undertaking is a 500/230 kilovolt</p>



Issues	Response
	<p>transformer station, which falls within the Class Environmental Assessment as an approved activity. Specifically, the Class Environmental Assessment dictates that it covers projects that include "The planning of, the acquisition of property for, and the design and construction of minor transmission lines and/or transformer stations and/or distributing stations and/or telecommunication towers, and the subsequent operation, maintenance and retirement of these facilities."</p> <p>Although the location of the Project and the potential impacts on the sensitive natural features has been raised as a concern, Hydro One has documented its assessment of the potential impacts on the environment, as well as assessed alternatives for the Project and provided adequate agency and public consultation; all of which fall under the requirements of the Class Environmental Assessment. Although the requestors contend that this is a large facility, the Environmental Study Report confirms that this Project is consistent with other transformer facilities throughout the province in terms of size and capacity. The conclusions made that the Project is not anticipated to significantly impact any sensitive natural features, socio-economic environment or cultural landscape, have been confirmed and substantiated by the technical experts and government agencies. I am satisfied that Hydro One has appropriately followed the procedures outlined in the Class Environmental Assessment.</p>

Ministry of the Environment

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Ontario

JAN 02 2014

ENV1283MC-2013-2616

Mr. Michael Harris  
MPP- Kitchener-Conestoga  
Queens Park, Room 344, Legislative Building  
Toronto ON M7A 1A2

Dear Mr. Harris:

Thank you for your interest in Hydro One Networks Inc. (Hydro One) proposed Clarington Transformer Station (Project). I welcome your comments on this Project.

You requested that Hydro One be required to prepare an individual environmental assessment for the Project. I am taking this opportunity to inform you that based on my review of the Project documentation and the issues you raised, I have decided that an individual environmental assessment is not required.

I am, pursuant to my authority under subsection 16(3) of the Environmental Assessment Act, imposing, by order, conditions on the Project in order to ensure protection of the environment. These conditions will ensure that permits and approvals are obtained, as well as ensuring a Groundwater Monitoring Plan, an Acoustic Assessment Report and a Contingency and Pollution Prevention Plan are prepared. These conditions are outlined in the attached letter to Hydro One.

In making this decision, I have given careful consideration to the Project documentation, the provisions of the Class Environmental Assessment for Minor Transmission Facilities (Class Environmental Assessment), your issues raised in the Part II Order request, and relevant matters to be considered under subsection 16(4) of the Environmental Assessment Act.

Hydro One has demonstrated that it has planned and developed the Project in accordance with the provisions of the Class Environmental Assessment. I am satisfied therefore that the purpose of the Act, "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation, and wise management in Ontario of the environment," has been met for the Project.

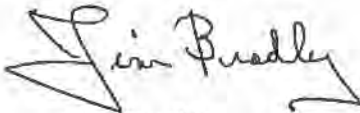
Mr. Michael Harris  
Page 2.

Your outstanding concerns together with the reasons for my decision are set out in the attached table. I am satisfied that the issues and concerns have been addressed by the work done to date by Hydro One, or will be addressed in future work that is required to be carried out.

With this decision having been made, Hydro One can now proceed with the Project, subject to any other permits or approvals required. Hydro One must implement the Project in the manner it was developed and designed, as set out in the Project documentation, and inclusive of all mitigating measures, and environmental and other provisions therein.

Again, I would like to thank you for participating in the Class Environmental Assessment process and for bringing your concerns to my attention.

Yours sincerely,

A handwritten signature in black ink that reads "Jim Bradley". The signature is written in a cursive, flowing style with a prominent initial "J" and a long, sweeping underline.

Jim Bradley  
Minister of the Environment

**Clarington Transformer Station (Project)  
Hydro One Networks Inc. (Hydro One)**

**Ministry's review of outstanding Issues Raised by MPP Michael Harris:**

Issues	Response
<b>Surface Water/Groundwater/Oak Ridges Moraine Impacts</b>	
<p>You have raised concerns that the Project will negatively impact the Oak Ridges Moraine. Specifically, you state that the soil will not be strong enough to support the transformer structures, which may vibrate when operating, and will cause cracks to the base and containment systems and allow contaminants to leak into the underlying water table.</p> <p>You believe that the hydrological and hydrogeological studies that were completed by Hydro One are inadequate, and that surface and groundwater features are not accurately represented. You contend that surface water springs exist on the site, and that the Project will significantly impact these features. Also, you state that the data representing water table levels are incorrect, and that groundwater levels are actually shallower than what is presented in the Environmental Study Report. As a result, the Project will cause direct impacts to the surrounding private shallow wells that residents utilize for potable water and possible larger scale impacts if contamination reaches the deep aquifers located directly underneath the Project.</p>	<p>Hydro One has documented its assessment of potential impacts to the natural environment in the Environmental Study Report. With regards to the assessment of existing surface and groundwater resources, detailed geotechnical and hydrogeological assessments were undertaken on behalf of Hydro One throughout the planning process, and reports were included as part of the Class Environmental Assessment documentation. The Project falls within the boundaries of the Central Lake Ontario Conservation Area, and as such Hydro One has worked with the Central Lake Ontario Conservation Authority to determine baseline conditions and potential impacts of the Project on water resources. The Environmental Study Report, in addition to the subsequent hydrogeologic and hydrologic assessment reports, prepared by EXP, Inspec-Sol Inc. and Stantec Consulting Inc. on behalf of Hydro One in November 2012, January 2013 and April 2013, respectively, confirms that the Project area consists of predominantly sandy salty surficial till materials and the soil composition is approximately 10 to 30 metres thick. This data was confirmed through Central Lake Ontario Conservation Authority records and mapping, Ministry of the Environment well records, exploratory boreholes conducted by engineering experts in preparation of the geotechnical reports, and groundwater monitoring wells installed by Hydro One on the Project site.</p> <p>The Environmental Study Report documents that the construction of the transformers will require excavation of approximately 5 metres below the ground surface to install structural supports and the containment systems for transformer oils used by the facility. Hydro One has determined that these structures will be located above the water table, which is at least 10 metres below the surface, and excavation will not directly contact groundwater sources. Furthermore, the hydrogeological studies</p>

Issues	Response
	<p>indicate that the till material in the Project area is considered an aquitard, which will impede surface water recharge or groundwater discharge within the Project area. The Environmental Study Report confirms that there are no surface water springs on the site, and any surface water that is observed is the result of stormwater accumulation that cannot penetrate into the ground due to poor drainage. Central Lake Ontario Conservation Authority mapping shows that the area is not considered an area of significant groundwater recharge or within any Intake Protection Zones. The Central Lake Ontario Conservation Authority advised Hydro One that it concurs with Hydro One's hydrogeological description of the site conditions and the Project's potential impacts on groundwater.</p> <p>Hydro One has documented the potential impacts of the Project on the private shallow and deep wells, located near the facility, in the Environmental Study Report and through the numerous hydrological studies undertaken during the planning process. Ministry of the Environment water well records show that there are 20 nearby private wells, and the majority obtain water from deep aquifers approximately 50 to 100 metres below ground surface. Along with the conclusions made in the Hydrogeology reports that the soil composition will not allow for any leakage into the groundwater, and that private wells are drawing from deep aquifers, in which the groundwater flows from a northwest to south east direction (i.e. the wells are up gradient from the Project), the potential for impacts to these private wells is not anticipated. This conclusion is also substantiated by comments made to Hydro One by the Central Lake Ontario Conservation Authority.</p> <p>In order to confirm the conclusions within the April 2013 hydrogeology and hydrology report, Environmental Approvals Branch staff requested a Ministry of the Environment hydrogeologist to review the report and comment on groundwater impacts. Ministry of the Environment technical staff provided comments on the hydrogeologic and hydrologic assessment report and concluded that it had no outstanding concerns with respect to the construction</p>

Issues	Response
	<p>or operational activities of the Project from a groundwater perspective. Furthermore, staff noted that prior to construction, Hydro One may require a Permit to Take Water from the Ministry of the Environment, which will include an impact assessment for all existing groundwater uses, including the private wells. The ministry will only issue a Permit to Take Water once it can confirm that the Project will not significantly impact any surrounding groundwater sources or uses, such as wells. Based on the review undertaken by the ministry to date, impacts to groundwater are not expected.</p> <p>With regards to surface water, Hydro One has documented the aquatic features that exist within the Project site and how the Project may impact these natural features. The Environmental Study Report confirms that there are no Provincially Significant Wetlands located within or adjacent to the Project site. However, the Environmental Study Report documents that the Project area does fall within the headwaters of both the Harmony Creek (on the west side on the site) and the Farewell Creek (east side of site) tributaries. The assessment of these watercourses confirm that there are points of surface water discharge, which cause flow across the Project site during high rainfall events. The hydrology reports show that these creek systems rely only on overland flow, and are not supported by groundwater in these areas. A stormwater conveyance system is proposed for the Project to direct surface water into the Harmony Creek tributary, located at the north end of the Project site. Also, any clean water that will be discharged from the transformer containment systems (which is the system under the transformer structure designed to prevent the loss of transformer insulating oil from entering the surrounding environment) will also flow through the conveyance system and be discharged. All other oil in the containment systems will be held in tanks, which will act as oil-water separators, and will be collected and trucked away, following all applicable Ministry of the Environment waste removal procedures.</p> <p>Hydro One will also require watercourse crossing permits from the Central Lake Ontario Conservation</p>

Issues	Response
	<p>Authority for the crossing of tributaries of the Harmony Creek and Farewell Creek, in addition to an Environmental Compliance Approval for industrial sewage from the Ministry of the Environment. Both of these approvals will further ensure that impacts to surface water resources will be minimized.</p> <p>To further address the issues raised regarding the possible contamination of the drinking water supply by the oil used in the transformers, Environmental Approvals Branch staff sought comments from Ministry of the Environment Source Protection staff. Upon reviewing the Environmental Study Report and utilizing Source Protection mapping from the Credit Toronto Central Lake Ontario Source Protection Area, Ministry of the Environment Source Protection staff advised that the transformer oil used by the facility is not considered a dense non-aqueous phase liquid (or DNAPL), which is the term used to describe contaminants in groundwater, surface water and sediments. Therefore, the potential for this oil to contaminate the groundwater is not anticipated.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for adequately assessing the potential impacts on the surrounding natural environment. I am also satisfied that aquatic features and ecological resources have been adequately considered in the Project documentation, which has been confirmed by technical staff and the Central Lake Ontario Conservation Authority.</p>
Process	Response- Class Environmental Assessment Alternatives
<p>You contend that the preferred alternative selected for the Project; i.e. on the Oak Ridges Moraine, is not ideal and not suitable for an industrial undertaking such as this. You believe that other alternative locations should be considered by Hydro One, which could avoid significant impacts to the surrounding environment.</p>	<p>As with all Class Environmental Assessments, proponents must document a reasonable range of alternative solutions to the Project need/problem, as well as alternative options to the preferred solution. With regards to this Project, the need or purpose for the undertaking is understood; i.e. to provide additional electrical capacity for the eastern Greater Toronto Area. Upon review of the Environmental Study Report, Ministry of the Environment staff</p>

Issues	Response
	<p>determined that Hydro One did not present its assessment of potential alternative solutions and options for this Project in a manner that was easily communicated to the readers. It was expressed through subsequent documentation appended to the Environmental Study Report, in addition to communications and consultations between Ministry of the Environment staff and Hydro One, that other options were considered prior to selecting the Clarington transformer station option. The sections of the Environmental Study Report that outlined alternatives seemed to imply that only one reasonable option can be considered for this Project; i.e. a transformer station on the Oak Ridges Moraine Hydro One property. The Environmental Study Report states that the Ontario Power Authority originally documented the rationale for a new Oshawa area transformer station in its 2007 Integrated Power System Plan. The Ontario Power Authority subsequently advised Hydro One, through direct correspondence and reports in 2011 and 2012, which are included as part of the Environmental Study Report, that in order to offset the reduction of 3,000 megawatts of electricity flow to the eastern Greater Toronto Area, which will be lost when the Pickering Nuclear Generating Station is retired and decommissioned, and to address reliability issues in this area, a new 500 kilovolt/230 kilovolt transformer station in the Oshawa area would be required, which was based on a technical and economic comparison of potential transmission options. This recommendation and rationale was presented by Hydro One to the Ontario Energy Board in its 2013/14 Transmission Revenue Requirement Application.</p> <p>In order to better understand the planning process and the ultimate decision to select the Clarington transformer station, Ministry of the Environment staff requested that Hydro One provide more clarity and revise and update the sections of the Environmental Study Report which documents the assessment of alternatives, so that it can better explain which alternatives were considered and why certain options were screened out. Hydro One provided revised documentation to Ministry of the Environment staff</p>

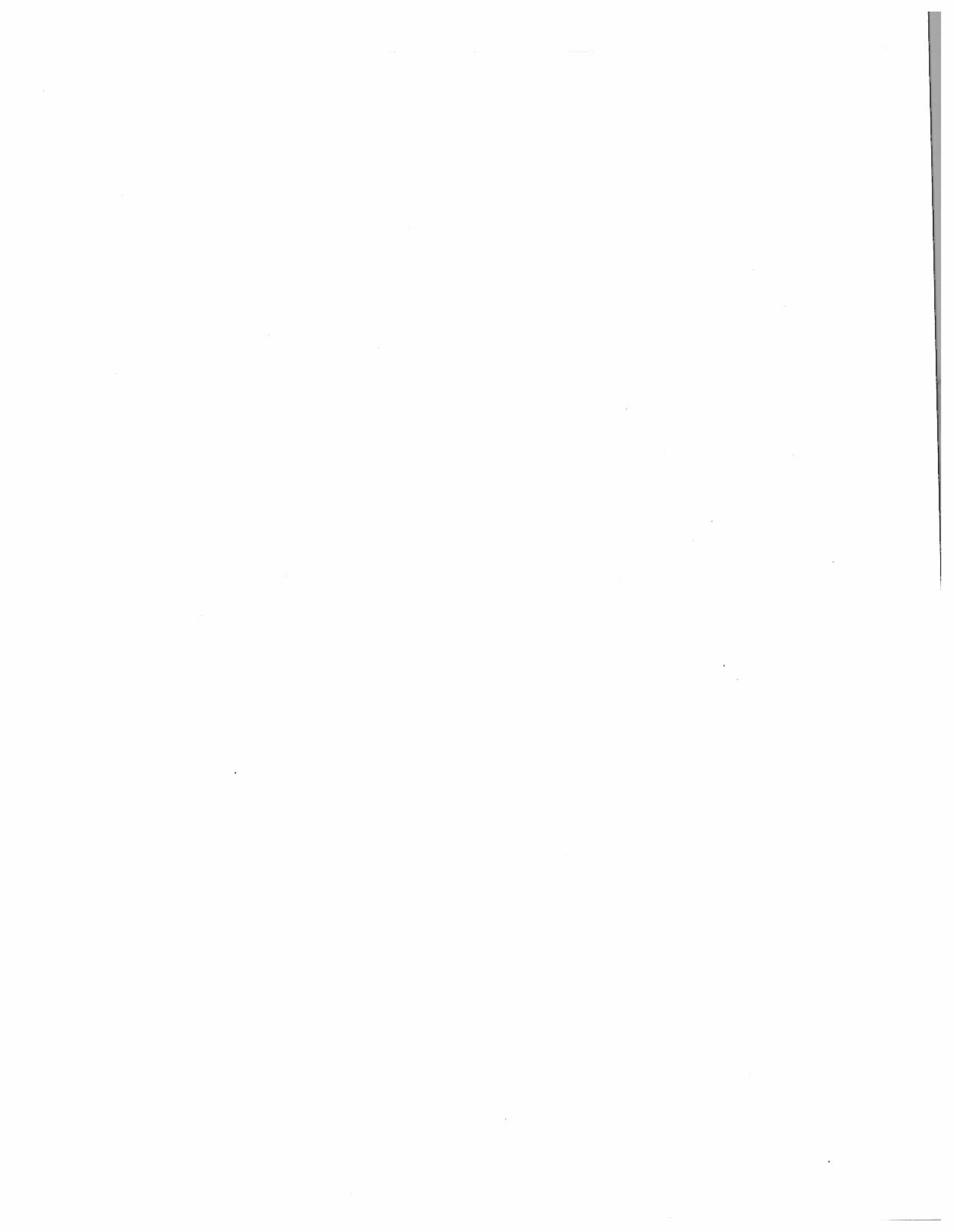


Issues	Response
	<p>which is to be included in the final Environmental Study Report. In the revised documentation, Hydro One confirmed that prior to proceeding with the Clarington transformer station alternative, other options were considered but were screened out because they were either economically or technically unfeasible. Specifically, the expansion of Cherrywood Transformer Station, according to documentation provided to Hydro One by the Ontario Power Authority, would not be technically feasible, as the current configuration of equipment would not be able to handle the introduction of two new transformers that are required for this Project. In addition, the Ontario Power Authority indicates that the two switchyards that are currently at Cherrywood would need to be interconnected; however that could cause short circuiting due to the capacity of the existing circuit breaker system. The Ontario Power Authority advised that this option cannot be considered from a technical feasibility aspect. For the Parkway Transformer Station, the documentation concludes that the new 230 kilovolt connections that would be required to connect Parkway and Cherrywood stations (which is the only method of relieving the load of the transformers at Cherrywood and allow the system to function properly) cannot be implemented as the area that the transmission lines would need to be located (i.e. down the Finch transmission corridor), is already fully developed. Therefore, the potential impacts to the existing natural and social environment, along with the significant costs of acquiring a right of way for this infrastructure, does not make this alternative viable in the Ontario Power Authority's opinion. Therefore, this option was also not considered further and was screened out as a potential preferred alternative.</p> <p>During the planning process, Hydro One received several comments from the public, specifically from the larger local environmental groups, such as yours, regarding potential alternative sites for this undertaking. While no member of the public or group was against the need for additional electrical capacity, the preferred alternative put forward by Hydro One (i.e. on the Oak Ridges Moraine) was not received well and has been highly contested. As such, several</p>

Issues	Response
	<p>alternative locations were proposed by the public, and Hydro One assessed these locations and provided reasons in the Environmental Study Report as to why they could not be considered as potential preferred alternatives for this Project. Specifically, these alternatives included the possibility of constructing transformer facilities on the sites of the Pickering Nuclear Generating Station, the Darlington Nuclear Generating Station or the Wesleyville Generating Station. Hydro One determined that these three options would not be viable as they all pose significant technical or economic feasibility issues. Each of these sites (unlike the Clarington site) do not have both 500 and 230 kilovolt transmission lines, which are required for a transformer station. In order to install these lines, significant impacts to the surrounding environment would be required, due to land expropriation, and would also require significant costs. Furthermore, much like the alternative of expanding Parkway Transformer station, which was also screened out, these options have technical feasibility issues relating to short circuiting and would require approvals from the Ontario Energy Board for the installation of new transmission lines. As such, these sites were not considered as potential preferred alternative locations.</p> <p>In addition to including transformer stations at existing generating facilities, two other alternative sites were proposed by the public; lands near Cherrywood Transformer station and at Rundle Road/Taunton Road. Much like the other alternatives considered, these two sites were also discussed in the Environmental Study Report and not considered as viable options as they either do not have the infrastructure required to build a transformer station, which would require significant costs and impacts to surrounding environment due to property acquisition and potential destruction of natural features, or are technically unfeasible and will cause electrical transmission failures or short circuiting.</p> <p>The preferred alternative selected, i.e. the Clarington Oak Ridges Moraine Hydro One property lands, was</p>

Issues	Response
	<p>considered ideal for this type of facility as it possessed all the electrical infrastructure required, was previously acquired for this purpose, would require no additional property expropriation, is a permitted use under the Oak Ridges Moraine Conservation and Greenbelt Plans, and no significant environmental impacts are predicted.</p> <p>Although it appears in the Project documentation that only one alternative was considered and screened by Hydro One through the Class Environmental Assessment process, the Environmental Study Report and accompanying documentation from the Ontario Power Authority shows that several alternatives were considered for the Project prior to moving forward with the Clarington site. Also, Hydro One has indicated that the primary reason for selecting this site was because it is designated for this particular use, it is already owned by Hydro One and would not require any private property access or expropriation, and it makes use of existing infrastructure.</p> <p>Therefore, I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing a reasonable range of alternatives for the Project.</p>
<p><b>Class Environmental Assessment</b> You contend that this Project should not be undertaken under a Class Environmental Assessment; that it is too large and contentious to be determined a pre-approved activity.</p>	<p>The Class Environmental Assessment outlines the requirements for an undertaking to be considered under this pre-approved planning process. In addition, the Class Environmental Assessment specifies which types of undertakings, in this case electrical distribution facilities, can be considered and which must undertake a higher level of assessment; i.e. an individual environmental assessment.</p> <p>For this Project, Hydro One has confirmed and documented that this undertaking is a 500/230 kilovolt transformer station, which falls within the Class Environmental Assessment as an approved activity. Specifically, the Class Environmental Assessment dictates that it covers projects that include "The planning of, the acquisition of property for, and the</p>

Issues	Response
	<p>design and construction of minor transmission lines and/or transformer stations and/or distributing stations and/or telecommunication towers, and the subsequent operation, maintenance and retirement of these facilities.”</p> <p>Although the location of the Project and the potential impacts on the sensitive natural features has been raised as a concern, Hydro One has documented its assessment of the potential impacts on the environment, as well as assessed alternatives for the Project and provided adequate agency and public consultation; all of which fall under the requirements of the Class Environmental Assessment. Although the requestors contend that this is a large facility, the Environmental Study Report confirms that this Project is consistent with other transformer facilities throughout the province in terms of size and capacity. The conclusions made that the Project is not anticipated to significantly impact any sensitive natural features, socio-economic environment or cultural landscape, have been confirmed and substantiated by the technical experts and government agencies. I am satisfied that Hydro One has appropriately followed the procedures outlined in the Class Environmental Assessment.</p>



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JAN 02 2014

ENV1283MC-2013-2616

Mr. Clint Cole  
Enniskillen Environmental Association  
7354 Langmaid Road, RR1  
Hampton ON L0B 1J0

Dear Enniskillen Environmental Association:

Thank you for your interest in Hydro One Networks Inc. (Hydro One) proposed Clarington Transformer Station (Project). I welcome your comments on this Project.

You requested, on behalf of the Enniskillen Environmental Association, that Hydro One be required to prepare an individual environmental assessment for the Project. I am taking this opportunity to inform you that based on my review of the Project documentation and the issues you raised, I have decided that an individual environmental assessment is not required.

I am, pursuant to my authority under subsection 16(3) of the Environmental Assessment Act, imposing, by order, conditions on the Project in order to ensure protection of the environment. These conditions will ensure that permits and approvals are obtained, as well as ensuring a Groundwater Monitoring Plan, an Acoustic Assessment Report and a Contingency and Pollution Prevention Plan are prepared. These conditions are outlined in the attached letter to Hydro One.

In making this decision, I have given careful consideration to the Project documentation, the provisions of the Class Environmental Assessment for Minor Transmission Facilities (Class Environmental Assessment), your issues raised in the Part II Order request, subsequent consultations with ministry staff, and your submission in response to the hydrogeology and hydrology reports, and relevant matters to be considered under subsection 16(4) of the Environmental Assessment Act. You will note that this letter includes issues that you may have not specifically raised in your Part II Order request or in correspondence with ministry staff; however, given the similarity of the issues brought forward regarding this Project from the other requestors, I have included them in this letter to you.

Hydro One has demonstrated that it has planned and developed the Project in accordance with the provisions of the Class Environmental Assessment. I am satisfied therefore that the purpose of the Act, "the betterment of the people of the whole or any part of Ontario by

Enniskillen Environmental Association  
Page 2.

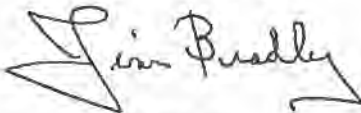
providing for the protection, conservation, and wise management in Ontario of the environment," has been met for the Project.

Your outstanding concerns together with the reasons for my decision are set out in the attached table. I am satisfied that the issues and concerns have been addressed by the work done to date by Hydro One, or will be addressed in future work that is required to be carried out.

With this decision having been made, Hydro One can now proceed with the Project, subject to any other permits or approvals required. Hydro One must implement the Project in the manner it was developed and designed, as set out in the Project documentation, and inclusive of all mitigating measures, and environmental and other provisions therein.

Again, I would like to thank you for participating in the Class Environmental Assessment process and for bringing your concerns to my attention.

Yours sincerely,

A handwritten signature in cursive script that reads "Jim Bradley". The signature is written in dark ink and is positioned above the printed name and title.

Jim Bradley  
Minister of the Environment

**Clarington Transformer Station (Project)  
 Hydro One Networks Inc. (Hydro One)**

**Ministry's review of outstanding Issues Raised by the Enniskillen Environmental Association:**

Issues	Response
<b>Surface Water/Groundwater/Oak Ridges Moraine Impacts</b>	
<p>You have raised concerns that the Project will negatively impact the Oak Ridges Moraine. Specifically, you state that the soil will not be strong enough to support the transformer structures, which may vibrate when operating, and will cause cracks to the base and containment systems and allow contaminants to leak into the underlying water table.</p> <p>You believe that the hydrological and hydrogeological studies that were completed by Hydro One are inadequate, and that surface and groundwater features are not accurately represented. You contend that surface water springs exist on the site, and that the Project will significantly impact these features. Also, you state that the data representing water table levels are incorrect, and that groundwater levels are actually shallower than what is presented in the Environmental Study Report. As a result, you believe the Project will cause direct impacts to the surrounding private shallow wells that residents utilize for potable water and possible larger scale impacts if contamination reaches the deep aquifers located directly underneath the Project.</p>	<p>Hydro One has documented its assessment of potential impacts to the natural environment in the Environmental Study Report. With regards to the assessment of existing surface and groundwater resources, detailed geotechnical and hydrogeological assessments were undertaken on behalf of Hydro One throughout the planning process, and reports were included as part of the Class Environmental Assessment documentation. The Project falls within the boundaries of the Central Lake Ontario Conservation Area, and as such Hydro One has worked with the Central Lake Ontario Conservation Authority to determine baseline conditions and potential impacts of the Project on water resources. The Environmental Study Report, in addition to the subsequent hydrogeologic and hydrologic assessment reports, prepared by EXP, Inspec-Sol Inc. and Stantec Consulting Inc. on behalf of Hydro One in November 2012, January 2013 and April 2013, respectively, confirms that the Project area consists of predominantly sandy salty surficial till materials and the soil composition is approximately 10 to 30 metres thick. This data was confirmed through Central Lake Ontario Conservation Authority records and mapping, Ministry of the Environment well records, exploratory boreholes conducted by engineering experts in preparation of the geotechnical reports, and groundwater monitoring wells installed by Hydro One on the Project site.</p> <p>The Environmental Study Report documents that the construction of the transformers will require excavation of approximately 5 metres below the ground surface to install structural supports and the containment systems for transformer oils used by the facility. Hydro One has determined that these structures will be located above the water table, which is at least 10 metres below the surface, and</p>



Issues	Response
	<p>excavation will not directly contact groundwater sources. Furthermore, the hydrogeological studies indicate that the till material in the Project area is considered an aquitard, which will impede surface water recharge or groundwater discharge within the Project area. The Environmental Study Report confirms that there are no surface water springs on the site, and any surface water that is observed is the result of stormwater accumulation that cannot penetrate into the ground due to poor drainage. Central Lake Ontario Conservation Authority mapping shows that the area is not considered an area of significant groundwater recharge or within any Intake Protection Zones. The Central Lake Ontario Conservation Authority advised Hydro One that it concurs with Hydro One's hydrogeological description of the site conditions and the Project's potential impacts on groundwater.</p> <p>Hydro One has documented the potential impacts of the Project on the private shallow and deep wells, located near the facility, in the Environmental Study Report and through the numerous hydrological studies undertaken during the planning process. Ministry of the Environment water well records show that there are 20 nearby private wells, and the majority obtain water from deep aquifers approximately 50 to 100 metres below ground surface. Along with the conclusions made in the Hydrogeology reports that the soil composition will not allow for any leakage into the groundwater, and that private wells are drawing from deep aquifers, in which the groundwater flows from a northwest to south east direction (i.e. the wells are up gradient from the Project), the potential for impacts to these private wells is not anticipated. This conclusion is also substantiated by comments made to Hydro One by the Central Lake Ontario Conservation Authority.</p> <p>In order to confirm the conclusions within the April 2013 hydrogeology and hydrology report, Environmental Approvals Branch staff requested a Ministry of the Environment hydrogeologist to review the report and comment on groundwater impacts. Ministry of the Environment technical staff provided comments on the hydrogeologic and hydrologic</p>

Issues	Response
	<p>assessment report and concluded that it had no outstanding concerns with respect to the construction or operational activities of the Project from a groundwater perspective. Furthermore, staff noted that prior to construction, Hydro One may require a Permit to Take Water from the Ministry of the Environment, which will include an impact assessment for all existing groundwater uses, including the private wells. The ministry will only issue a Permit to Take Water once it can confirm that the Project will not significantly impact any surrounding groundwater sources or uses, such as wells. Based on the review undertaken by the ministry to date, impacts to groundwater are not expected.</p> <p>Subsequent to the release of the April 2013 hydrology and hydrogeology report, you submitted a formal response to the April 2013 report which outlined several inadequacies and recommended additional hydrogeological study be undertaken by Hydro One. Ministry of the Environment and Central Lake Ontario Conservation Authority reviewed this document to confirm if previous conclusions and positions with respect to impacts on surface and groundwater were still valid. Both Central Lake Ontario Conservation Authority and the Ministry of the Environment hydrogeologist confirmed that their previous conclusions, (i.e. that they do not have any significant outstanding concerns with respect to the Project's potential impacts on groundwater) remain valid and that your position that further study is required is not necessary.</p> <p>With regards to surface water, Hydro One has documented the aquatic features that exist within the Project site and how the Project may impact these natural features. The Environmental Study Report confirms that there are no Provincially Significant Wetlands located within or adjacent to the Project site. However, the Environmental Study Report documents that the Project area does fall within the headwaters of both the Harmony Creek (on the west side on the site) and the Farewell Creek (east side of site) tributaries. The assessment of these watercourses confirm that there are points of surface water discharge, which cause flow across the Project site during high rainfall</p>

Issues	Response
	<p>events. The hydrology reports show that these creek systems rely only on overland flow, and are not supported by groundwater in these areas. A stormwater conveyance system is proposed for the Project to direct surface water into the Harmony Creek tributary, located at the north end of the Project site. Also, any clean water that will be discharged from the transformer containment systems (which is the system under the transformer structure designed to prevent the loss of transformer insulating oil from entering the surrounding environment) will also flow through the conveyance system and be discharged. All other oil in the containment systems will be held in tanks, which will act as oil-water separators, and will be collected and trucked away, following all applicable Ministry of the Environment waste removal procedures.</p> <p>Hydro One will also require watercourse crossing permits from the Central Lake Ontario Conservation Authority for the crossing of tributaries of the Harmony Creek and Farewell Creek, in addition to an Environmental Compliance Approval for industrial sewage from the Ministry of the Environment. Both of these approvals will further ensure that impacts to surface water resources will be minimized.</p> <p>To further address the issues raised regarding the possible contamination of the drinking water supply by the oil used in the transformers, Environmental Approvals Branch staff sought comments from Ministry of the Environment Source Protection staff. Upon reviewing the Environmental Study Report and utilizing Source Protection mapping from the Credit Toronto Central Lake Ontario Source Protection Area, Ministry of the Environment Source Protection staff advised that the transformer oil used by the facility is not considered a dense non-aqueous phase liquid (or DNAPL), which is the term used to describe contaminants in groundwater, surface water and sediments. Therefore, the potential for this oil to contaminate the groundwater is not anticipated.</p> <p>As a further measure to protect the environment, a condition has been placed on Hydro One to submit a Groundwater Monitoring Plan prior to project</p>

Issues	Response
	<p>construction, and make it available on the Project website for public viewing.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for adequately assessing the potential impacts on the surrounding natural environment. I am also satisfied that aquatic features and ecological resources have been adequately considered in the Project documentation, which has been confirmed by technical staff and the Central Lake Ontario Conservation Authority.</p>
<b>Water Quality</b>	
<p>You contend that an emergency at the site (i.e. transformer failure/explosion) will leak toxic transformer oil and other pollutants that the transformers use and contaminate the groundwater.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report shows that Hydro One will use highly refined transformer insulating oil to operate the facility. The Environmental Study Report documents the structures that will contain this oil and the details of how it will separate it from water that will inevitably enter the containment system through the surface water. The Material Safety Data Sheet for the transformer oil confirms that it does not contain toxic pollutants, and Ministry of the Environment Source Protection staff, who referenced the list of the prescribed threats to municipal drinking water (found in Ontario Regulation 287/07) confirm that the oil is not considered a DNAPL which could be harmful to groundwater, should a leak ever occur. However, as described above, the hydrogeology studies undertaken for the Project have concluded that the composition of the soil (i.e. surficial till) will impede surface water recharge or groundwater discharge within the Project area. As such, leakage into the groundwater is not anticipated.</p> <p>Although the transformer facility is proposed to operate automatically without any persons on site, I am satisfied that safety has been adequately considered by Hydro One and that the transformer facility, similar to numerous other facilities throughout the province, will not cause any significant impacts to the surrounding environment in the event of an emergency. In addition to the containment systems</p>

Issues	Response
	<p>described above, spill cleanup and response equipment will be located on site, and control systems will alert Hydro One in the event of an emergency and crews will be dispatched to the site within a short period of time. Hydro One will be required to meet Ministry of the Environment spills requirements, as prescribed in Ontario Regulation 675/98 of the Environmental Protection Act, in addition to completing and submitting an Emergency Response plan when applying for an Environmental Compliance Approval for industrial sewage. This will further ensure that potential impacts to the surrounding natural environment in the event of an emergency will be kept to a minimum.</p> <p>The proposed transformer facilities will be located within the Project site and will be more than 100 metres from the boundaries of adjacent residential properties; as such, any emergency event (i.e. equipment failure) will not directly impact any of these surrounding properties.</p> <p>The Environmental Study Report documents the mitigation measures which will be provided to further reduce the impacts on the surrounding properties. For instance, Hydro One has proposed replacement plantings and extending natural linkages (such as hedgerows on the west side of the site) to provide a visual screening from the surrounding neighbouring properties.</p> <p>As a further measure to protect water quality, a condition has been placed on Hydro One to submit a Contingency and Pollution Prevention Plan as part of the Environmental Compliance Approval for the Project and make it available on the Project website for public viewing.</p> <p>I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for considering potential impacts to the surrounding natural environment, specifically groundwater, and has adequately documented public safety and emergency management measures.</p>
<b>Noise</b>	

Issues	Response
<p>You raise concern that the Project will produce high levels of noise during construction and when in operation which will cause significant negative impacts to the surrounding environment.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report shows that Hydro One has documented its assessment of the potential impacts of the Project due to noise.</p> <p>In addition to the assessment of noise impacts and mitigation measures prescribed in the Environmental Study Report, Hydro One prepared a preliminary noise evaluation and appended it to the Environmental Study Report. In the preliminary noise evaluation, Hydro One provided an assessment of potential noise sources of the Project, the predicted sound levels of the facility during operation, and the nearby sensitive noise receptors in the Project study area. Hydro One has documented that the nearest noise receptors are approximately 200 to 1000 metres away, and include private residences adjacent to the Project site.</p> <p>As per the requirements of the Ministry of the Environment publication "Information to be Submitted for Approval of Stationary Sources of Sound" (1995), Hydro One must prepare a detailed acoustic assessment report and submit it to the Ministry of the Environment as part of its application for an Environmental Compliance Approval for noise. In the application for the approval, Hydro One will need to submit a design report, in which all sources of noise will be documented, as well as the exact distances of any points of emission to any private residences. Hydro One will have to ensure that noise levels fall within the prescribed limits for the area.</p> <p>The preliminary noise evaluation states that noise naturally attenuates (lowers) as separation distance from the point of reception increases. Based on the separation distance from the nearest sensitive receptor of approximately 200 metres, Hydro One predicts that noise impacts at the nearest sensitive receptors are not anticipated and will fall within the prescribed sound level limits. However, if the results of the detailed acoustic assessment report determine that noise impacts are greater than anticipated, noise attenuation and other mitigation measures may be required, such as barriers and/or specialized transformers and cooling fans designed to reduce noise, which have been used in the past at other</p>

Issues	Response
	<p>transformer facilities. Only once these requirements have been met can an Environmental Compliance Approval be issued and the Project constructed.</p> <p>In order to ensure any potential noise impacts are assessed, a condition has been placed on Hydro One to submit a detailed Acoustic Assessment Report as part of the Environmental Compliance Approval application and make it available on the Project website for public viewing.</p> <p>Ministry of the Environment Staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has adequately assessed the potential impacts of the Project due to noise. In addition, Ministry staff are satisfied that the Environmental Compliance Approval required for the Project will further ensure that any impacts due to noise will be mitigated.</p>
<b>Natural Heritage Features- Wildlife, Fish, Species at Risk</b>	
<p>You contend that the Project may have potential significant negative impacts to wildlife, including fisheries and species at risk.</p>	<p>In the Environmental Study Report, Hydro One has documented its assessment of the Project's potential impacts to wildlife, including habitat, fisheries and species at risk.</p> <p>The Environmental Study Report documents that the Project study area includes agricultural fields, woodland areas and dry marsh areas. All of these habitats include terrestrial wildlife, and Hydro One has undertaken field surveys to determine if there are any significant species or habitat present in the area and how the Project will avoid or mitigate the impacts to these resources. Hydro One's investigations and research on the area concluded that the Project site does not include any concentration areas or congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors. The Ministry of Natural Resources, who administer the Endangered Species Act, have been consulted throughout this Project and have been the technical experts that Hydro One has relied on for providing information and comments regarding potential impacts to Endangered Species or</p>

Issues	Response
	<p>Species at Risk. The Ministry of Natural Resources Natural Heritage Information Centre database indicated that there are no Species at Risk that have been recorded on the site since 1989.</p> <p>The Environmental Study Report documents that the Project will require the removal of Butternut trees (less than 10 of the observed 46 according to the Ecological Land Classification of Southern Ontario) to accommodate the transformer equipment and reconfiguration of the existing transmission lines. Hydro One has documented its commitment to restore the species by proposing a 2-1 replanting of butternut in a suitable area within the Project study area. This replanting is consistent with the requirements of a Butternut removal approval that will be required from the Ministry of Natural Resources under section 17 of the Endangered Species Act.</p> <p>According to Fisheries and Oceans Canada mapping, there are no aquatic (fish or mussel) Species at Risk within the Harmony Creek and Farewell Creek Watersheds. The Central Lake Ontario Conservation Authority, who provided comments on the Environmental Study Report, confirms that it currently has a Level 3 Agreement to review and assess projects on behalf of Fisheries and Oceans Canada under the Fisheries Act. Both the watersheds of Harmony Creek and Farewell Creek (which are located on the Project site) are considered fish habitats, and are known to support 33 native species and five introduced species. Hydro One undertook fisheries surveys in both watersheds and due to low water levels, no fish were observed or caught. The Environmental Study Report documents that the Project will require watercourse crossing permits from the Central Lake Ontario Conservation Authority prior to the project being constructed. The Central Lake Ontario Conservation Authority provided correspondence to Ministry of the Environment staff which indicates that it will further consider impacts to fisheries and fish habitat when reviewing the documentation pertaining to the watercourse crossing permits, and will provide input as to whether or not Hydro One will be required to obtain any Fisheries Act approvals.</p>



Issues	Response
	<p>Ministry of the Environment staff have reviewed the Environmental Study Report and subsequent natural features and wildlife species documentation, and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing potential negative impacts to the surrounding natural environment. Further, Hydro One will be required to obtain watercourse crossing permits from the Central Lake Ontario Conservation Authority and approvals from the Ministry of Natural Resources under the Endangered Species Act prior to construction of the Project.</p>
<p><b>Construction impacts/traffic</b></p>	
<p>You raise issues with the Project and its significant impacts to traffic during construction, in addition to other construction impacts, such as dust and public safety.</p>	<p>Hydro One has documented in the Environmental Study Report the procedures it intends to take and the mitigation measures that will be in place to facilitate traffic management during the construction period, which is anticipated to last 27 months. In addition, Hydro One has documented the construction activities that may cause short term impacts on the surrounding environment, such as equipment storage, public safety around the construction zone, dust and other pollutants that may be produced during construction activities and may damage landscape features during construction.</p> <p>The Environmental Study Report notes that Hydro One will require a traffic management plan that will be submitted for approval by the Municipality of Clarington prior to construction. This plan will ensure that Hydro One can avoid and mitigate traffic disruptions when possible and will ensure that the local traffic will be able to navigate around the construction zone safely. Hydro One confirms that there will be no full road closures as a result of construction activities. In addition, Hydro One will provide construction scheduling information to local emergency services to ensure that response units are aware of the construction activities and alternatives are available. Finally, Hydro One has committed to holding a public open house prior to construction to advise local residents of the traffic disruptions that will</p>

Issues	Response
	<p>be associated with the construction of the facility and how they may be impacted during that time.</p> <p>With regards to public safety, Hydro One has confirmed that the construction area, including the equipment storage areas, will be restricted from the public through fencing and gates, and access will only be allowed for construction personnel. Hydro One also indicates that traffic control officers may be assigned to assist construction vehicles to enter and exit the property in the event that traffic impacts are greater than anticipated. This will further ensure that public safety will be kept at a high priority.</p> <p>With regards to other construction related impacts, such as dust, waste, and damaging surrounding landscapes with equipment during construction, Hydro One has proposed several mitigation measures that will ensure that the impacts to the environment will be kept to a minimum or avoided. For instance, Hydro One acknowledges that dust may be produced during phases of construction; however it has indicated that it will implement dust suppression techniques to minimize any impacts. With regards to any waste produced at the site during construction or operation, Hydro One has committed to following all applicable legislative requirements for waste management.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing potential impacts to the natural and social environments with regards to traffic and construction impacts. The mitigation measures proposed in the Environmental Study Report and accompanying documentation will ensure that potential impacts to the surrounding area and local population will be minimized.</p>
<b>Electric and Magnetic Fields/Stray Voltage</b>	
<p>Concern was raised that the Project will cause significant adverse health effects due to Stray Voltage and</p>	<p>Hydro One has documented the potential impacts of the Project on the surrounding environment with regards to Stray Voltage and Electric and Magnetic</p>

Issues	Response
<p>Electric and Magnetic Fields.</p>	<p>Fields.</p> <p>Hydro One states that Electric and Magnetic Fields are found everywhere electricity is used and can come from anywhere (e.g. home appliances to electric power facilities, such as substations, transmission lines and distribution lines). However, Electric and Magnetic Fields strength decreases rapidly with increasing distance from the source. The strongest Electric and Magnetic Fields around a transformer station are typically found where transmission lines enter or exit the station, or adjacent to walls where transformers are located within the transformer station. For this Project, the transformer structures themselves are located several hundred metres from the nearest private residence, and is located on a large (17 hectare) site that is owned by Hydro One.</p> <p>Hydro One looks to Health Canada for guidance on health related Electric and Magnetic Field issues. Hydro One has included information from Health Canada regarding Electric and Magnetic Fields and has appended it to the Environmental Study Report. National and international health agencies including Health Canada and the World Health Organization have concluded that the scientific research does not demonstrate that Electric and Magnetic Fields cause or contribute to adverse health effects. Recently, Health Canada has identified that it does not consider guidelines regarding Electric and Magnetic Fields necessary because the scientific evidence is not strong enough to conclude that exposures cause health problems for the public.</p> <p>With regard to stray voltage, Hydro One has indicated that it is an occurrence that is associated with low voltage distribution lines. This Project will be connected to 500 and 230 kilovolt transmission lines, which are considered high voltage. Hydro One also confirms that a transformer station does not impact the existing low voltage transmission system, and that stray voltage is an issue specific to livestock operations, where improper grounding of equipment is the primary cause.</p> <p>I am satisfied that Hydro One has adequately</p>

Issues	Response
	addressed health concerns relating to Electric and Magnetic Fields and stray voltage for this Project.
Process	Response- Oak Ridges Moraine Conservation Plan
<p>You contend that the Project is not in accordance with the Oak Ridges Moraine Conservation Plan, which states that undertakings such as this are only permitted if no other reasonable alternative to the Project exists. In addition, you feel that the requirements for the Class Environmental Assessment have not been met, as it also requires an assessment of a range of alternative solutions and methods prior to selecting a preferred option. The key issue is that only one option was presented to the public, i.e. transformer facility on the Oak Ridges Moraine Clarington site, and that the selection of the site was pre-determined without any environmental screening. It is believed that other alternative locations would avoid significant impacts to the surrounding environment.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report confirms that the Project is located within the Oak Ridges Moraine and the Greenbelt, as per the Oak Ridges Moraine Conservation Plan (2002) and the Greenbelt Plan (2005). Both plans document restrictions for development in these areas to ensure the protection of the ecological features and agricultural land base. The Region of Durham Official Plan (2008) and the Municipality of Clarington Official Plan (2012) both conform to the Oak Ridges Moraine Conservation Plan, and state that the Project study area is considered an agricultural land use and is designated as Countryside Area, while the current natural features (such as the woodlands, valleylands and wetlands) are designated as Natural Linkage Areas. In addition, sections of the Project study area which are outside the Oak Ridges Moraine are governed by the Greenbelt Plan and are designated as Protected Countryside. The Oak Ridges Moraine Conservation Plan itself identifies policies for planning infrastructure on these lands, and the Environmental Study Report documents these policies and how the Project will satisfy the requirements. The Oak Ridges Moraine Conservation Plan outlines restrictions for development or site alteration on any Oak Ridges lands. However, under both the Greenbelt and Oak Ridges Moraine Conservation Plans, undertakings considered transportation, infrastructure, or utilities (which a transformer station would be considered), are permitted in these areas, provided the detailed policies are adhered to under Section 41 of the Oak Ridges Moraine Conservation plan. The policies stipulate that a utility undertaking cannot be approved unless the need for the project has been demonstrated and there is no reasonable alternative; and the applicant demonstrates that the undertaking meets certain requirements (such as keeping construction area disturbance to a minimum, right of way widths kept to a minimum, allow for wildlife passage, and keeping adverse effects on the</p>

Issues	Response
	<p>ecological integrity of the area to a minimum).</p> <p>The Ministry of Municipal Affairs and Housing administers both the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan, and as such Hydro One has documented its consultation with the Ministry of Municipal Affairs and Housing throughout the planning on the Project, which is included in the Environmental Study Report. Ministry of Municipal Affairs and Housing staff provided a response to Ministry of the Environment staff confirming its previous position provided to Hydro One in October 2012, that the Project is subject to the Oak Ridges Moraine Conservation Plan through the policies outlined in Section 41 of the Plan. Ministry of Municipal Affairs and Housing have not indicated any outstanding concerns at this time with the Project and its implementation on Greenbelt or Oak Ridges Moraine lands.</p>
	<p><b>Response- Class Environmental Assessment Alternatives</b></p>
	<p>As with all Class Environmental Assessments, proponents must document a reasonable range of alternative solutions to the Project need/problem, as well as alternative options to the preferred solution. With regards to this Project, the need or purpose for the undertaking is understood; i.e. to provide additional electrical capacity for the eastern Greater Toronto Area. Upon review of the Environmental Study Report, Ministry of the Environment staff determined that Hydro One did not present its assessment of potential alternative solutions and options for this Project in a manner that was easily communicated to the readers. It was expressed through subsequent documentation appended to the Environmental Study Report, in addition to communications and consultations between Ministry of the Environment staff and Hydro One, that other options were considered prior to selecting the Clarington transformer station option. The sections of the Environmental Study Report that outlined alternatives seemed to imply that only one reasonable option can be considered for this Project; i.e. a transformer station on the Oak Ridges Moraine Hydro One property. The Environmental Study Report states</p>

Issues	Response
	<p>that the Ontario Power Authority originally documented the rationale for a new Oshawa area transformer station in its 2007 Integrated Power System Plan. The Ontario Power Authority subsequently advised Hydro One, through direct correspondence and reports in 2011 and 2012, which are included as part of the Environmental Study Report, that in order to offset the reduction of 3,000 megawatts of electricity flow to the eastern Greater Toronto Area, which will be lost when the Pickering Nuclear Generating Station is retired and decommissioned, and to address reliability issues in this area, a new 500 kilovolt/230 kilovolt transformer station in the Oshawa area would be required, which was based on a technical and economic comparison of potential transmission options. This recommendation and rationale was presented by Hydro One to the Ontario Energy Board in its 2013/14 Transmission Revenue Requirement Application.</p> <p>In order to better understand the planning process and the ultimate decision to select the Clarington transformer station, Ministry of the Environment staff requested that Hydro One provide more clarity and revise and update the sections of the Environmental Study Report which documents the assessment of alternatives, so that it can better explain which alternatives were considered and why certain options were screened out. Hydro One provided revised documentation to Ministry of the Environment staff which is to be included in the final Environmental Study Report. In the revised documentation, Hydro One confirmed that prior to proceeding with the Clarington transformer station alternative, other options were considered but were screened out because they were either economically or technically unfeasible. Specifically, the expansion of Cherrywood Transformer Station, according to documentation provided to Hydro One by the Ontario Power Authority, would not be technically feasible, as the current configuration of equipment would not be able to handle the introduction of two new transformers that are required for this Project. In addition, the Ontario Power Authority indicates that the two switchyards that are currently at Cherrywood would need to be</p>

Issues	Response
	<p>interconnected; however that could cause short circuiting due to the capacity of the existing circuit breaker system. The Ontario Power Authority advised that this option cannot be considered from a technical feasibility aspect. For the Parkway Transformer Station, the documentation concludes that the new 230 kilovolt connections that would be required to connect Parkway and Cherrywood stations (which is the only method of relieving the load of the transformers at Cherrywood and allow the system to function properly) cannot be implemented as the area that the transmission lines would need to be located (i.e. down the Finch transmission corridor), is already fully developed. Therefore, the potential impacts to the existing natural and social environment, along with the significant costs of acquiring a right of way for this infrastructure, does not make this alternative viable in the Ontario Power Authority's opinion. Therefore, this option was also not considered further and was screened out as a potential preferred alternative.</p> <p>Several alternative locations were proposed by the public, and Hydro One assessed these locations and provided reasons in the Environmental Study Report as to why they could not be considered as potential preferred alternatives for this Project. Specifically, these alternatives included the possibility of constructing transformer facilities on the sites of the Pickering Nuclear Generating Station, the Darlington Nuclear Generating Station or the Wesleyville Generating Station. Hydro One determined that these three options would not be viable as they all pose significant technical or economic feasibility issues. Each of these sites (unlike the Clarington site) do not have both 500 and 230 kilovolt transmission lines, which are required for a transformer station. In order to install these lines, significant impacts to the surrounding environment would be required, due to land expropriation, and would also require significant costs. Furthermore, much like the alternative of expanding Parkway Transformer station, which was also screened out, these options have technical feasibility issues relating to short circuiting and would require approvals from the Ontario Energy Board for the installation of new transmission lines. As such, these sites were not considered as potential preferred</p>

Issues	Response
	<p>alternative locations.</p> <p>In addition to including transformer stations at existing generating facilities, two other alternative sites were proposed by the public; lands near Cherrywood Transformer station and at Rundle Road/Taunton Road. Much like the other alternatives considered, these two sites were also discussed in the Environmental Study Report and not considered as viable options as they either do not have the infrastructure required to build a transformer station, which would require significant costs and impacts to surrounding environment due to property acquisition and potential destruction of natural features, or are technically unfeasible and will cause electrical transmission failures or short circuiting.</p> <p>The preferred alternative selected, i.e. the Clarington Oak Ridges Moraine Hydro One property lands, was considered ideal for this type of facility as it possessed all the electrical infrastructure required, was previously acquired for this purpose, would require no additional property expropriation, is a permitted use under the Oak Ridges Moraine Conservation and Greenbelt Plans, and no significant environmental impacts are predicted.</p> <p>Although it appears in the Project documentation that only one alternative was considered and screened by Hydro One through the Class Environmental Assessment process, the Environmental Study Report and accompanying documentation from the Ontario Power Authority shows that several alternatives were considered for the Project prior to moving forward with the Clarington site. Also, Hydro One has indicated that the primary reason for selecting this site was because it is designated for this particular use, it is already owned by Hydro One and would not require any private property access or expropriation, and it makes use of existing infrastructure.</p> <p>Therefore, I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing a reasonable range of alternatives for the Project.</p>



Issues	Response
<b>Class Environmental Assessment</b>	
<p>You contend that this Project should not be undertaken under a Class Environmental Assessment; that it is too large and contentious to be determined a pre-approved activity.</p>	<p>The Class Environmental Assessment outlines the requirements for an undertaking to be considered under this pre-approved planning process. In addition, the Class Environmental Assessment specifies which types of undertakings, in this case electrical distribution facilities, can be considered and which must undertake a higher level of assessment; i.e. an individual environmental assessment.</p> <p>For this Project, Hydro One has confirmed and documented that this undertaking is a 500/230 kilovolt transformer station, which falls within the Class Environmental Assessment as an approved activity. Specifically, the Class Environmental Assessment dictates that it covers projects that include "The planning of, the acquisition of property for, and the design and construction of minor transmission lines and/or transformer stations and/or distributing stations and/or telecommunication towers, and the subsequent operation, maintenance and retirement of these facilities."</p> <p>Although the location of the Project and the potential impacts on the sensitive natural features has been raised as a concern, Hydro One has documented its assessment of the potential impacts on the environment, as well as assessed alternatives for the Project and provided adequate agency and public consultation; all of which fall under the requirements of the Class Environmental Assessment. Although the requestors contend that this is a large facility, the Environmental Study Report confirms that this Project is consistent with other transformer facilities throughout the province in terms of size and capacity. The conclusions made that the Project is not anticipated to significantly impact any sensitive natural features, socio-economic environment or cultural landscape, have been confirmed and substantiated by the technical experts and government agencies. Therefore, I am satisfied that Hydro One has appropriately followed the procedures outlined in the Class Environmental Assessment.</p>
<b>Consultation</b>	

Issues	Response
<p>Concern was raised that Hydro One has not met the requirements of the Class Environmental Assessment for adequate public consultation during the planning of the Project.</p>	<p>The Class Environmental Assessment sets out the requirements for public consultation. Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project with regards to public consultation. The Notice of Commencement for the Project was circulated to the public and agencies beginning in April 2012. Hydro One held two Public Information Centres (PIC) for the Project, on May 23, 2012 and November 8, 2012 respectively. In addition, during the planning process Hydro One also held a community information meeting on September 11, 2012, in addition to posting all major milestones and updates to a dedicated Project website. Furthermore, Hydro One arranged several meetings with individual community and citizen groups, including your Association. It was through these meetings that Hydro One was presented with alternative locations for the Project, and an assessment and rationale for screening out certain alternatives was presented to members of the public at later meetings.</p> <p>The Notice of Completion was posted by Hydro One on November 15, 2012 in local newspapers and online and the Environmental Study Report was provided for review by the public for 30 days, as per the requirements of the Class Environmental Assessment. Given the level of public interest for the Project, the Ministry of the Environment allowed for additional information to be provided from certain requestors after the 30-day review period to support the issues raised in their original Part II Order requests.</p> <p>In order to provide an opportunity for you to be kept informed of the Project as it proceeds, a condition requiring Hydro One to form a Community Liaison Committee has been placed on the Project. Hydro One will extend an invitation for the Enniskillen Environmental Association and other interested member of the public to participate in the committee.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for public and stakeholder consultation.</p>



Ministry of the Environment

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JAN 02 2014

ENV1283MC-2013-2616

Ms. Terri Pellerin and students of Kedron Public School  
1935 Riston Road North  
Oshawa ON L1H 7K5

Dear Ms. Pellerin and students:

Thank you for your interest in Hydro One Networks Inc. (Hydro One) proposed Clarington Transformer Station (Project). I welcome your comments on this Project.

You requested that Hydro One be required to prepare an individual environmental assessment for the Project. I am taking this opportunity to inform you that based on my review of the Project documentation and the issues you raised, I have decided that an individual environmental assessment is not required.

I am, pursuant to my authority under subsection 16(3) of the Environmental Assessment Act, imposing, by order, conditions on the Project in order to ensure protection of the environment. These conditions will ensure that permits and approvals are obtained, as well as ensuring a Groundwater Monitoring Plan, an Acoustic Assessment Report and a Contingency and Pollution Prevention Plan are prepared. These conditions are outlined in the attached letter to Hydro One.

In making this decision, I have given careful consideration to the Project documentation, the provisions of the Class Environmental Assessment for Minor Transmission Facilities (Class Environmental Assessment), the issues raised in your Part II Order request and the requests of others, and relevant matters to be considered under subsection 16(4) of the Environmental Assessment Act. You will note that this letter includes issues that you may have not specifically raised, however given the similarity of the issues brought forward regarding this Project from other requestors, I have included them in this letter to you.

Hydro One has demonstrated that it has planned and developed the Project in accordance with the provisions of the Class Environmental Assessment. I am satisfied therefore that the purpose of the Act, "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation, and wise management in Ontario of the environment," has been met for the Project.

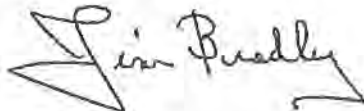
Ms. Terri Pellerin and students of Kedron Public School  
Page 2.

Your outstanding concerns together with the reasons for my decision are set out in the attached table. I am satisfied that the issues and concerns have been addressed by the work done to date by Hydro One, or will be addressed in future work that is required to be carried out.

With this decision having been made, Hydro One can now proceed with the Project, subject to any other permits or approvals required. Hydro One must implement the Project in the manner it was developed and designed, as set out in the Project documentation, and inclusive of all mitigating measures, and environmental and other provisions therein.

Again, I would like to thank you for participating in the Class Environmental Assessment process and for bringing your concerns to my attention.

Yours sincerely,

A handwritten signature in cursive script that reads "Jim Bradley". The signature is written in dark ink and is positioned above the printed name.

Jim Bradley  
Minister of the Environment

**Clarington Transformer Station (Project)  
 Hydro One Networks Inc. (Hydro One)**

**Ministry's review of outstanding Issues raised by Ms. Terri Pellerin and students of Kedron Public School:**

Issues	Response
<b>Surface Water/Groundwater/Oak Ridges Moraine Impacts</b>	
<p>You have raised concerns that the Project will negatively impact the Oak Ridges Moraine. Specifically, you indicate that the Project will impact the groundwater and surface water resources present in the area.</p>	<p>Hydro One has documented its assessment of potential impacts to the natural environment in the Environmental Study Report. With regards to the assessment of existing surface and groundwater resources, detailed geotechnical and hydrogeological assessments were undertaken on behalf of Hydro One throughout the planning process, and reports were included as part of the Class Environmental Assessment documentation. The Project falls within the boundaries of the Central Lake Ontario Conservation Area, and as such Hydro One has worked with the Central Lake Ontario Conservation Authority to determine baseline conditions and potential impacts of the Project on water resources. The Environmental Study Report, in addition to the subsequent hydrogeologic and hydrologic assessment reports, prepared by EXP, Inspec-Sol Inc. and Stantec Consulting Inc. on behalf of Hydro One in November 2012, January 2013 and April 2013, respectively, confirms that the Project area consists of predominantly sandy salty surficial till materials and the soil composition is approximately 10 to 30 metres thick. This data was confirmed through Central Lake Ontario Conservation Authority records and mapping, Ministry of the Environment well records, exploratory boreholes conducted by engineering experts in preparation of the geotechnical reports, and groundwater monitoring wells installed by Hydro One on the Project site.</p> <p>The Environmental Study Report documents that the construction of the transformers will require excavation of approximately 5 metres below the ground surface to install structural supports and the containment systems for transformer oils used by the facility. Hydro One has determined that these structures will be located above the water table, which is at least 10 metres below the surface, and</p>

Issues	Response
	<p>excavation will not directly contact groundwater sources. Furthermore, the hydrogeological studies indicate that the till material in the Project area is considered an aquitard, which will impede surface water recharge or groundwater discharge within the Project area. The Environmental Study Report confirms that there are no surface water springs on the site, and any surface water that is observed is the result of stormwater accumulation that cannot penetrate into the ground due to poor drainage. Central Lake Ontario Conservation Authority mapping shows that the area is not considered an area of significant groundwater recharge or within any Intake Protection Zones. The Central Lake Ontario Conservation Authority advised Hydro One that it concurs with Hydro One's hydrogeological description of the site conditions and the Project's potential impacts on groundwater.</p> <p>Hydro One has documented the potential impacts of the Project on the private shallow and deep wells, located near the facility, in the Environmental Study Report and through the numerous hydrological studies undertaken during the planning process. Ministry of the Environment water well records show that there are 20 nearby private wells, and the majority obtain water from deep aquifers approximately 50 to 100 metres below ground surface. Along with the conclusions made in the Hydrogeology reports that the soil composition will not allow for any leakage into the groundwater, and that private wells are drawing from deep aquifers, in which the groundwater flows from a northwest to south east direction (i.e. the wells are up gradient from the Project), the potential for impacts to these private wells is not anticipated. This conclusion is also substantiated by comments made to Hydro One by the Central Lake Ontario Conservation Authority.</p> <p>In order to confirm the conclusions within the April 2013 hydrogeology and hydrology report, Environmental Approvals Branch staff requested a Ministry of the Environment hydrogeologist to review the report and comment on groundwater impacts. Ministry of the Environment technical staff provided comments on the hydrogeologic and hydrologic</p>

Issues	Response
	<p>assessment report and concluded that it had no outstanding concerns with respect to the construction or operational activities of the Project from a groundwater perspective. Furthermore, staff noted that prior to construction, Hydro One may require a Permit to Take Water from the Ministry of the Environment, which will include an impact assessment for all existing groundwater uses, including the private wells. The ministry will only issue a Permit to Take Water once it can confirm that the Project will not significantly impact any surrounding groundwater sources or uses, such as wells. Based on the review undertaken by the ministry to date, impacts to groundwater are not expected.</p> <p>With regards to surface water, Hydro One has documented the aquatic features that exist within the Project site and how the Project may impact these natural features. The Environmental Study Report confirms that there are no Provincially Significant Wetlands located within or adjacent to the Project site. However, the Environmental Study Report documents that the Project area does fall within the headwaters of both the Harmony Creek (on the west side on the site) and the Farewell Creek (east side of site) tributaries. The assessment of these watercourses confirm that there are points of surface water discharge, which cause flow across the Project site during high rainfall events. The hydrology reports show that these creek systems rely only on overland flow, and are not supported by groundwater in these areas. A stormwater conveyance system is proposed for the Project to direct surface water into the Harmony Creek tributary, located at the north end of the Project site. Also, any clean water that will be discharged from the transformer containment systems (which is the system under the transformer structure designed to prevent the loss of transformer insulating oil from entering the surrounding environment) will also flow through the conveyance system and be discharged. All other oil in the containment systems will be held in tanks, which will act as oil-water separators, and will be collected and trucked away, following all applicable Ministry of the Environment waste removal procedures.</p>



Issues	Response
	<p>Hydro One will also require watercourse crossing permits from the Central Lake Ontario Conservation Authority for the crossing of tributaries of the Harmony Creek and Farewell Creek, in addition to an Environmental Compliance Approval for industrial sewage from the Ministry of the Environment. Both of these approvals will further ensure that impacts to surface water resources will be minimized.</p> <p>To further address the issues raised regarding the possible contamination of the drinking water supply by the oil used in the transformers, Environmental Approvals Branch staff sought comments from Ministry of the Environment Source Protection staff. Upon reviewing the Environmental Study Report and utilizing Source Protection mapping from the Credit Toronto Central Lake Ontario Source Protection Area, Ministry of the Environment Source Protection staff advised that the transformer oil used by the facility is not considered a dense non-aqueous phase liquid (or DNAPL), which is the term used to describe contaminants in groundwater, surface water and sediments. Therefore, the potential for this oil to contaminate the groundwater is not anticipated.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for adequately assessing the potential impacts on the surrounding natural environment. I am also satisfied that aquatic features and ecological resources have been adequately considered in the Project documentation, which has been confirmed by technical staff and the Central Lake Ontario Conservation Authority.</p>
<p><b>Water Quality</b></p> <p>You contend that an emergency at the site (i.e. transformer failure/explosion) will leak toxic transformer oil and other pollutants that the transformers use and contaminate the groundwater.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report shows that Hydro One will use highly refined transformer insulating oil to operate the facility. The Environmental Study Report documents the structures that will contain this oil and the details of how it will separate it from water that will inevitably enter the containment system through the surface water. The Material Safety Data Sheet for the</p>

Issues	Response
	<p>transformer oil confirms that it does not contain toxic pollutants, and Ministry of the Environment Source Protection staff, who referenced the list of the prescribed threats to municipal drinking water (found in Ontario Regulation 287/07) confirm that the oil is not considered a DNAPL which could be harmful to groundwater, should a leak ever occur. However, as described above, the hydrogeology studies undertaken for the Project have concluded that the composition of the soil (i.e. surficial till) will impede surface water recharge or groundwater discharge within the Project area. As such, leakage into the groundwater is not anticipated.</p> <p>Although the transformer facility is proposed to operate automatically without any persons on site, I am satisfied that safety has been adequately considered by Hydro One and that the transformer facility, similar to numerous other facilities throughout the province, will not cause any significant impacts to the surrounding environment in the event of an emergency. In addition to the containment systems described above, spill cleanup and response equipment will be located on site, and control systems will alert Hydro One in the event of an emergency and crews will be dispatched to the site within a short period of time. Hydro One will be required to meet Ministry of the Environment spills requirements, as prescribed in Ontario Regulation 675/98 of the Environmental Protection Act, in addition to completing and submitting an Emergency Response plan when applying for an Environmental Compliance Approval for industrial sewage. This will further ensure that potential impacts to the surrounding natural environment in the event of an emergency will be kept to a minimum.</p> <p>The proposed transformer facilities will be located within the Project site and will be more than 100 metres from the boundaries of adjacent residential properties; as such, any emergency event (i.e. equipment failure) will not directly impact any of these surrounding properties.</p> <p>The Environmental Study Report documents the mitigation measures which will be provided to further</p>

Issues	Response
	<p>reduce the impacts on the surrounding properties. For instance, Hydro One has proposed replacement plantings and extending natural linkages (such as hedgerows on the west side of the site) to provide a visual screening from the surrounding neighbouring properties.</p> <p>I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for considering potential impacts to the surrounding natural environment, specifically groundwater, and has adequately documented public safety and emergency management measures.</p>
Noise	
<p>You raise concern that the Project will produce high levels of noise during construction and when in operation which will cause significant negative impacts to the surrounding environment.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report shows that Hydro One has documented its assessment of the potential impacts of the Project due to noise.</p> <p>In addition to the assessment of noise impacts and mitigation measures prescribed in the Environmental Study Report, Hydro One prepared a preliminary noise evaluation and appended it to the Environmental Study Report. In the preliminary noise evaluation, Hydro One provided an assessment of potential noise sources of the Project, the predicted sound levels of the facility during operation, and the nearby sensitive noise receptors in the Project study area. Hydro One has documented that the nearest noise receptors are approximately 200 to 1000 metres away, and include private residences adjacent to the Project site.</p> <p>As per the requirements of the Ministry of the Environment publication "Information to be Submitted for Approval of Stationary Sources of Sound" (1995), Hydro One must prepare a detailed acoustic assessment report and submit it to the Ministry of the Environment as part of its application for an Environmental Compliance Approval for noise. In the application for the approval, Hydro One will need to submit a design report, in which all sources of noise will be documented, as well as the exact distances of any points of emission to any private residences. Hydro One will have to ensure that noise levels fall within the prescribed limits for the area.</p>

Issues	Response
	<p>The preliminary noise evaluation states that noise naturally attenuates (lowers) as separation distance from the point of reception increases. Based on the separation distance from the nearest sensitive receptor of approximately 200 metres, Hydro One predicts that noise impacts at the nearest sensitive receptors are not anticipated and will fall within the prescribed sound level limits. However, if the results of the detailed acoustic assessment report determine that noise impacts are greater than anticipated, noise attenuation and other mitigation measures may be required, such as barriers and/or specialized transformers and cooling fans designed to reduce noise, which have been used in the past at other transformer facilities. Only once these requirements have been met can an Environmental Compliance Approval be issued and the Project constructed.</p> <p>Ministry of the Environment Staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has adequately assessed the potential impacts of the Project due to noise. In addition, Ministry staff are satisfied that the Environmental Compliance Approval required for the Project will further ensure that any impacts due to noise will be mitigated.</p>
<p><b>Natural Heritage Features- Wildlife, Fish, Species at Risk</b></p>	
<p>You contend that the Project may have potential significant negative impacts to wildlife, including fisheries and species at risk.</p>	<p>In the Environmental Study Report, Hydro One has documented its assessment of the Project's potential impacts to wildlife, including habitat, fisheries and species at risk.</p> <p>The Environmental Study Report documents that the Project study area includes agricultural fields, woodland areas and dry marsh areas. All of these habitats include terrestrial wildlife, and Hydro One has undertaken field surveys to determine if there are any significant species or habitat present in the area and how the Project will avoid or mitigate the impacts to these resources. Hydro One's investigations and research on the area concluded that the Project site does not include any concentration areas or</p>

Issues	Response
	<p>congregation areas (e.g., deer yards), specialized habitats, species of Conservation Concern nor animal movement corridors. The Ministry of Natural Resources, who administer the Endangered Species Act, have been consulted throughout this Project and have been the technical experts that Hydro One has relied on for providing information and comments regarding potential impacts to Endangered Species or Species at Risk. The Ministry of Natural Resources Natural Heritage Information Centre database indicated that there are no Species at Risk that have been recorded on the site since 1989.</p> <p>The Environmental Study Report documents that the Project will require the removal of Butternut trees (less than 10 of the observed 46 according to the Ecological Land Classification of Southern Ontario) to accommodate the transformer equipment and reconfiguration of the existing transmission lines. Hydro One has documented its commitment to restore the species by proposing a 2-1 replanting of butternut in a suitable area within the Project study area. This replanting is consistent with the requirements of a Butternut removal approval that will be required from the Ministry of Natural Resources under section 17 of the Endangered Species Act.</p> <p>According to Fisheries and Oceans Canada mapping, there are no aquatic (fish or mussel) Species at Risk within the Harmony Creek and Farewell Creek Watersheds. The Central Lake Ontario Conservation Authority, who provided comments on the Environmental Study Report, confirms that it currently has a Level 3 Agreement to review and assess projects on behalf of Fisheries and Oceans Canada under the Fisheries Act. Both the watersheds of Harmony Creek and Farewell Creek (which are located on the Project site) are considered fish habitats, and are known to support 33 native species and five introduced species. Hydro One undertook fisheries surveys in both watersheds and due to low water levels, no fish were observed or caught. The Environmental Study Report documents that the Project will require watercourse crossing permits from the Central Lake Ontario Conservation Authority prior to the project being constructed. The Central Lake</p>

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	<p>Ontario Conservation Authority provided correspondence to Ministry of the Environment staff which indicates that it will further consider impacts to fisheries and fish habitat when reviewing the documentation pertaining to the watercourse crossing permits, and will provide input as to whether or not Hydro One will be required to obtain any Fisheries Act approvals.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and subsequent natural features and wildlife species documentation, and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing potential negative impacts to the surrounding natural environment. Further, Hydro One will be required to obtain watercourse crossing permits from the Central Lake Ontario Conservation Authority and approvals from the Ministry of Natural Resources under the Endangered Species Act prior to construction of the Project.</p>
<b>Construction impacts/traffic</b>	
<p>You raise issues with the Project and its significant impacts to traffic during construction, in addition to other construction impacts, such as dust and public safety.</p>	<p>Hydro One has documented in the Environmental Study Report the procedures it intends to take and the mitigation measures that will be in place to facilitate traffic management during the construction period, which is anticipated to last 27 months. In addition, Hydro One has documented the construction activities that may cause short term impacts on the surrounding environment, such as equipment storage, public safety around the construction zone, dust and other pollutants that may be produced during construction activities and may damage landscape features during construction.</p> <p>The Environmental Study Report notes that Hydro One will require a traffic management plan that will be submitted for approval by the Municipality of Clarington prior to construction. This plan will ensure that Hydro One can avoid and mitigate traffic disruptions when possible and will ensure that the local traffic will be able to navigate around the construction zone safely. Hydro One confirms that</p>

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	<p>there will be no full road closures as a result of construction activities. In addition, Hydro One will provide construction scheduling information to local emergency services to ensure that response units are aware of the construction activities and alternatives are available. Finally, Hydro One has committed to holding a public open house prior to construction to advise local residents of the traffic disruptions that will be associated with the construction of the facility and how they may be impacted during that time.</p> <p>With regards to public safety, Hydro One has confirmed that the construction area, including the equipment storage areas, will be restricted from the public through fencing and gates, and access will only be allowed for construction personnel. Hydro One also indicates that traffic control officers may be assigned to assist construction vehicles to enter and exit the property in the event that traffic impacts are greater than anticipated. This will further ensure that public safety will be kept at a high priority.</p> <p>With regards to other construction related impacts, such as dust, waste, and damaging surrounding landscapes with equipment during construction, Hydro One has proposed several mitigation measures that will ensure that the impacts to the environment will be kept to a minimum or avoided. For instance, Hydro One acknowledges that dust may be produced during phases of construction; however it has indicated that it will implement dust suppression techniques to minimize any impacts. With regards to any waste produced at the site during construction or operation, Hydro One has committed to following all applicable legislative requirements for waste management.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing potential impacts to the natural and social environments with regards to traffic and construction impacts. The mitigation measures proposed in the Environmental Study Report and accompanying documentation will</p>

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	<p>ensure that potential impacts to the surrounding area and local population will be minimized.</p>
<p><b>Electric and Magnetic Fields/Stray Voltage</b></p>	
<p>Concern was raised that the Project will cause significant adverse health effects due to Stray Voltage and Electric and Magnetic Fields.</p>	<p>Hydro One has documented the potential impacts of the Project on the surrounding environment with regards to Stray Voltage and Electric and Magnetic Fields.</p> <p>Hydro One states that Electric and Magnetic Fields are found everywhere electricity is used and can come from anywhere (e.g. home appliances to electric power facilities, such as substations, transmission lines and distribution lines). However, Electric and Magnetic Fields strength decreases rapidly with increasing distance from the source. The strongest Electric and Magnetic Fields around a transformer station are typically found where transmission lines enter or exit the station, or adjacent to walls where transformers are located within the transformer station. For this Project, the transformer structures themselves are located several hundred metres from the nearest private residence, and is located on a large (17 hectare) site that is owned by Hydro One.</p> <p>Hydro One looks to Health Canada for guidance on health related Electric and Magnetic Field issues. Hydro One has included information from Health Canada regarding Electric and Magnetic Fields and has appended it to the Environmental Study Report. National and international health agencies including Health Canada and the World Health Organization have concluded that the scientific research does not demonstrate that Electric and Magnetic Fields cause or contribute to adverse health effects. Recently, Health Canada has identified that it does not consider guidelines regarding Electric and Magnetic Fields necessary because the scientific evidence is not strong enough to conclude that exposures cause health problems for the public.</p> <p>With regard to stray voltage, Hydro One has indicated that it is an occurrence that is associated with low voltage distribution lines. This Project will be connected to 500 and 230 kilovolt transmission lines,</p>



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	<p>which are considered high voltage. Hydro One also confirms that a transformer station does not impact the existing low voltage transmission system, and that stray voltage is an issue specific to livestock operations, where improper grounding of equipment is the primary cause.</p> <p>I am satisfied that Hydro One has adequately addressed health concerns relating to Electric and Magnetic Fields and stray voltage for this Project.</p>
Process	Response- Oak Ridges Moraine Conservation Plan
<p>You contend that the Project is not in accordance with the Oak Ridges Moraine Conservation Plan, which states that undertakings such as this are only permitted if no other reasonable alternative to the Project exists. In addition, you feel that the requirements for the Class Environmental Assessment have not been met, as it also requires an assessment of a range of alternative solutions and methods prior to selecting a preferred option. The key issue is that only one option was presented to the public, i.e. transformer facility on the Oak Ridges Moraine Clarington site, and that the selection of the site was pre-determined without any environmental screening. It is believed that other alternative locations would avoid significant impacts to the surrounding environment.</p>	<p>Ministry of the Environment staff's review of the Environmental Study Report confirms that the Project is located within the Oak Ridges Moraine and the Greenbelt, as per the Oak Ridges Moraine Conservation Plan (2002) and the Greenbelt Plan (2005). Both plans document restrictions for development in these areas to ensure the protection of the ecological features and agricultural land base. The Region of Durham Official Plan (2008) and the Municipality of Clarington Official Plan (2012) both conform to the Oak Ridges Moraine Conservation Plan, and state that the Project study area is considered an agricultural land use and is designated as Countryside Area, while the current natural features (such as the woodlands, valleylands and wetlands) are designated as Natural Linkage Areas. In addition, sections of the Project study area which are outside the Oak Ridges Moraine are governed by the Greenbelt Plan and are designated as Protected Countryside. The Oak Ridges Moraine Conservation Plan itself identifies policies for planning infrastructure on these lands, and the Environmental Study Report documents these policies and how the Project will satisfy the requirements. The Oak Ridges Moraine Conservation Plan outlines restrictions for development or site alteration on any Oak Ridges lands. However, under both the Greenbelt and Oak Ridges Moraine Conservation Plans, undertakings considered transportation, infrastructure, or utilities (which a transformer station would be considered), are permitted in these areas, provided the detailed policies are adhered to under Section 41 of the Oak Ridges Moraine Conservation plan. The policies</p>

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	<p>stipulate that a utility undertaking cannot be approved unless the need for the project has been demonstrated and there is no reasonable alternative; and the applicant demonstrates that the undertaking meets certain requirements (such as keeping construction area disturbance to a minimum, right of way widths kept to a minimum, allow for wildlife passage, and keeping adverse effects on the ecological integrity of the area to a minimum).</p> <p>The Ministry of Municipal Affairs and Housing administers both the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan, and as such Hydro One has documented its consultation with the Ministry of Municipal Affairs and Housing throughout the planning on the Project, which is included in the Environmental Study Report. Ministry of Municipal Affairs and Housing staff provided a response to Ministry of the Environment staff confirming its previous position provided to Hydro One in October 2012, that the Project is subject to the Oak Ridges Moraine Conservation Plan through the policies outlined in Section 41 of the Plan. Ministry of Municipal Affairs and Housing have not indicated any outstanding concerns at this time with the Project and its implementation on Greenbelt or Oak Ridges Moraine lands.</p>
	<p><b>Response- Class Environmental Assessment Alternatives</b></p>
	<p>As with all Class Environmental Assessments, proponents must document a reasonable range of alternative solutions to the Project need/problem, as well as alternative options to the preferred solution. With regards to this Project, the need or purpose for the undertaking is understood; i.e. to provide additional electrical capacity for the eastern Greater Toronto Area. Upon review of the Environmental Study Report, Ministry of the Environment staff determined that Hydro One did not present its assessment of potential alternative solutions and options for this Project in a manner that was easily communicated to the readers. It was expressed through subsequent documentation appended to the Environmental Study Report, in addition to communications and consultations between Ministry</p>

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	<p>of the Environment staff and Hydro One, that other options were considered prior to selecting the Clarington transformer station option. The sections of the Environmental Study Report that outlined alternatives seemed to imply that only one reasonable option can be considered for this Project; i.e. a transformer station on the Oak Ridges Moraine Hydro One property. The Environmental Study Report states that the Ontario Power Authority originally documented the rationale for a new Oshawa area transformer station in its 2007 Integrated Power System Plan. The Ontario Power Authority subsequently advised Hydro One, through direct correspondence and reports in 2011 and 2012, which are included as part of the Environmental Study Report, that in order to offset the reduction of 3,000 megawatts of electricity flow to the eastern Greater Toronto Area, which will be lost when the Pickering Nuclear Generating Station is retired and decommissioned, and to address reliability issues in this area, a new 500 kilovolt/230 kilovolt transformer station in the Oshawa area would be required, which was based on a technical and economic comparison of potential transmission options. This recommendation and rationale was presented by Hydro One to the Ontario Energy Board in its 2013/14 Transmission Revenue Requirement Application.</p> <p>In order to better understand the planning process and the ultimate decision to select the Clarington transformer station, Ministry of the Environment staff requested that Hydro One provide more clarity and revise and update the sections of the Environmental Study Report which documents the assessment of alternatives, so that it can better explain which alternatives were considered and why certain options were screened out. Hydro One provided revised documentation to Ministry of the Environment staff which is to be included in the final Environmental Study Report. In the revised documentation, Hydro One confirmed that prior to proceeding with the Clarington transformer station alternative, other options were considered but were screened out because they were either economically or technically unfeasible. Specifically, the expansion of Cherrywood</p>

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	<p>Transformer Station, according to documentation provided to Hydro One by the Ontario Power Authority, would not be technically feasible, as the current configuration of equipment would not be able to handle the introduction of two new transformers that are required for this Project. In addition, the Ontario Power Authority indicates that the two switchyards that are currently at Cherrywood would need to be interconnected; however that could cause short circuiting due to the capacity of the existing circuit breaker system. The Ontario Power Authority advised that this option cannot be considered from a technical feasibility aspect. For the Parkway Transformer Station, the documentation concludes that the new 230 kilovolt connections that would be required to connect Parkway and Cherrywood stations (which is the only method of relieving the load of the transformers at Cherrywood and allow the system to function properly) cannot be implemented as the area that the transmission lines would need to be located (i.e. down the Finch transmission corridor), is already fully developed. Therefore, the potential impacts to the existing natural and social environment, along with the significant costs of acquiring a right of way for this infrastructure, does not make this alternative viable in the Ontario Power Authority's opinion. Therefore, this option was also not considered further and was screened out as a potential preferred alternative.</p> <p>Several alternative locations were proposed by the public, and Hydro One assessed these locations and provided reasons in the Environmental Study Report as to why they could not be considered as potential preferred alternatives for this Project. Specifically, these alternatives included the possibility of constructing transformer facilities on the sites of the Pickering Nuclear Generating Station, the Darlington Nuclear Generating Station or the Wesleyville Generating Station. Hydro One determined that these three options would not be viable as they all pose significant technical or economic feasibility issues. Each of these sites (unlike the Clarington site) do not have both 500 and 230 kilovolt transmission lines, which are required for a transformer station. In order to install these lines, significant impacts to the surrounding environment would be required, due to</p>

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	<p>land expropriation, and would also require significant costs. Furthermore, much like the alternative of expanding Parkway Transformer station, which was also screened out, these options have technical feasibility issues relating to short circuiting and would require approvals from the Ontario Energy Board for the installation of new transmission lines. As such, these sites were not considered as potential preferred alternative locations.</p> <p>In addition to including transformer stations at existing generating facilities, two other alternative sites were proposed by the public; lands near Cherrywood Transformer station and at Rundle Road/Taunton Road. Much like the other alternatives considered, these two sites were also discussed in the Environmental Study Report and not considered as viable options as they either do not have the infrastructure required to build a transformer station, which would require significant costs and impacts to surrounding environment due to property acquisition and potential destruction of natural features, or are technically unfeasible and will cause electrical transmission failures or short circuiting.</p> <p>The preferred alternative selected, i.e. the Clarington Oak Ridges Moraine Hydro One property lands, was considered ideal for this type of facility as it possessed all the electrical infrastructure required, was previously acquired for this purpose, would require no additional property expropriation, is a permitted use under the Oak Ridges Moraine Conservation and Greenbelt Plans, and no significant environmental impacts are predicted.</p> <p>Although it appears in the Project documentation that only one alternative was considered and screened by Hydro One through the Class Environmental Assessment process, the Environmental Study Report and accompanying documentation from the Ontario Power Authority shows that several alternatives were considered for the Project prior to moving forward with the Clarington site. Also, Hydro One has indicated that the primary reason for selecting this site was because it is designated for this particular use, it is</p>

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	<p>already owned by Hydro One and would not require any private property access or expropriation, and it makes use of existing infrastructure.</p> <p>Therefore, I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for assessing a reasonable range of alternatives for the Project.</p>
<b>Class Environmental Assessment</b>	
<p>You contend that this Project should not be undertaken under a Class Environmental Assessment; that it is too large and contentious to be determined a pre-approved activity.</p>	<p>The Class Environmental Assessment outlines the requirements for an undertaking to be considered under this pre-approved planning process. In addition, the Class Environmental Assessment specifies which types of undertakings, in this case electrical distribution facilities, can be considered and which must undertake a higher level of assessment; i.e. an individual environmental assessment.</p> <p>For this Project, Hydro One has confirmed and documented that this undertaking is a 500/230 kilovolt transformer station, which falls within the Class Environmental Assessment as an approved activity. Specifically, the Class Environmental Assessment dictates that it covers projects that include "The planning of, the acquisition of property for, and the design and construction of minor transmission lines and/or transformer stations and/or distributing stations and/or telecommunication towers, and the subsequent operation, maintenance and retirement of these facilities."</p> <p>Although the location of the Project and the potential impacts on the sensitive natural features has been raised as a concern, Hydro One has documented its assessment of the potential impacts on the environment, as well as assessed alternatives for the Project and provided adequate agency and public consultation; all of which fall under the requirements of the Class Environmental Assessment. Although the requestors contend that this is a large facility, the Environmental Study Report confirms that this Project is consistent with other transformer facilities throughout the province in terms of size and capacity. The conclusions made that the Project is not anticipated to significantly impact any sensitive natural</p>

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	<p>features, socio-economic environment or cultural landscape, have been confirmed and substantiated by the technical experts and government agencies. Therefore, I am satisfied that Hydro One has appropriately followed the procedures outlined in the Class Environmental Assessment.</p>
<b>Consultation</b>	
<p>Concern was raised that Hydro One has not met the requirements of the Class Environmental Assessment for adequate public consultation during the planning of the Project.</p>	<p>The Class Environmental Assessment sets out the requirements for public consultation. Ministry of the Environment staff have reviewed the Environmental Study Report prepared for the Project with regards to public consultation. The Notice of Commencement for the Project was circulated to the public and agencies beginning in April 2012. Hydro One held two Public Information Centres (PIC) for the Project, on May 23, 2012 and November 8, 2012 respectively. In addition, during the planning process Hydro One also held a community information meeting on September 11, 2012, in addition to posting all major milestones and updates to a dedicated Project website. Furthermore, Hydro One arranged several meetings with individual community and citizen groups, including your Association. It was through these meetings that Hydro One was presented with alternative locations for the Project, and an assessment and rationale for screening out certain alternatives was presented to members of the public at later meetings.</p> <p>The Notice of Completion was posted by Hydro One on November 15, 2012 in local newspapers and online and the Environmental Study Report was provided for review by the public for 30 days, as per the requirements of the Class Environmental Assessment. Given the level of public interest for the Project, the Ministry of the Environment allowed for additional information to be provided from certain requestors after the 30-day review period to support the issues raised in their original Part II Order requests.</p> <p>Ministry of the Environment staff have reviewed the Environmental Study Report and I am satisfied that Hydro One has met the requirements of the Class Environmental Assessment for public and stakeholder consultation.</p>

Ms. Terri Pellerin and students of Kedron Public School  
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