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APPRO INTERROGATORY #1

1 2 3

Reference:

4 I2-04-01 p.2-3

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Interrogatory:

7 Preamble:

Hydro one has updated the 2015 Elenchus cost allocation model utilizing the latest available information and the ETS rate calculated using the elenchus study methodology has been determined to be \$1.25/MWh.

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a) Please file a complete copy of the 2015 Elenchus cost allocation model updated using the latest available information used to calculate the ETS Rate for \$1.25/MWh. Please file this cost allocation model in live excel format.

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b) Please provide a summary table that explains at a high level how the cost allocation model arrives at \$1.25/MWh.

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c) Please provide the date of the latest available information referenced in the preamble.

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Response:

a) The excel version of the 2015 Elenchus cost allocation model updated using the latest available information used to calculate the ETS Rate of \$1.25MWh is provided as Attachment 1 to this response.

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b) A high level description of how the cost allocation model allocates the costs associated with providing export service is provided on pages 1 to 2 of Exhibit I2, Tab 4, Schedule 1. The table provided below summarizes the calculation of the \$1.25/MWh ETS Rate.

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UTR Network Revenue Requirement

ETS Allocated Revenue Requirement (\$M)	Volume (GWh)	Rate (\$/MWh)	Hydro One Total (\$M)	Ontario Total (\$M)	Escalation Factor	Ontario ETS Revenue Requirement (\$M)	Ontario ETS Rate (\$/MWh)
A	В	C=A/B	D	Е	F=E/D	G=A X F	H=G/B
\$22.1	18,800.0	\$1.17	\$977.6	\$1,041.9	106.6%	\$23.5	\$1.25

Note: All revenue requirement amounts are based on Hydro One's proposed 2020 revenue requirement, as shown in Exhibit 12, Tab 4, Schedule 1, Table 1.

- c) The 2015 Elenchus cost allocation model was updated using the latest available data, which consists of:
 - Fixed Assets dedicated to Exports (interconnections) as of 2017 year-end;
 - 12 CP Allocator based on the total of the 2018 monthly IESO domestic and export peak data;
 - Hydro One's actual 2018 export volume (MWh); and
 - IESO's average domestic volume (MWh) from 2016-2018 (inclusive).

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 2 Page 1 of 2

APPRO INTERROGATORY #2

1 2 3

Reference:

I2-04-01 p.3, Settlement Agreement in EB-2014-0140

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Interrogatory:

7 **Preamble:**

Hydro One states that while the updated cost allocation study resulted in a calculated ETS rate of \$1.25/MWh, the current ETS rate of \$1.85/MWh represents a negotiated rate that was established as part of the Settlement Agreement in Proceeding EB-2014-0140.

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Based on the Settlement Agreement filed on September 15, 2014 and approved on December 2, 2014 in EB-2014-0140 (the "Settlement Agreement"), please confirm the following:

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a) As per Issue 2 of the Settlement Agreement at page 5 of 27, is Hydro One proposing to adopt in its current application the settled revenue requirement before adjustment as agreed by the parties to EB-2014-0140? If no, why not?

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b) As per Issue 4 of the Settlement Agreement at page 8 of 27, is Hydro One proposing to adopt in its current application the settled external revenues of as agreed by the parties to EB-2014-0140? If no, why not?

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c) As per the section under Overall OM&A Settlement and its Rationale in the Settlement Agreement at page 9 of 27, is Hydro One proposing to adopt in its current application the OM&A expenditures as agreed by the parties to EB-2014-0140? If no, why not?

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d) As per Issue 8 of the Settlement Agreement at page 12 of 27, is Hydro One proposing to adopt in its current application the transmission overhead capitalization rate agreed by the parties in EB-2014-0140? If no, why not?

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e) As per Issue 11 of the Settlement at page 16 of 27, is Hydro One proposing to adopt in its current application the rate base agreed by the parties in EB-2014-0140? If no, why not?

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f) Is Hydro One proposing to maintain in its current application the outputs of the cost allocation model that was agreed to by the parties in EB-2014-0140? If no, why not?

Response:

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- a) to e) No. The items referenced (i.e. revenue requirement, external revenues, OM&A expenditures, overhead capitalization rate, rate base) are all inputs to the determination of revenue requirement over the 2020 to 2022 period that need to be reviewed and approved by the OEB in this proceeding.
- 10 f) No. The allocation of costs to the transmission rate pools must be updated to reflect the revenue requirement and rate base proposed for the 2020 to 2022 period.

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APPRO INTERROGATORY #3

1 2 3

Reference:

4 I2-04-01 p.3 Table 1

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Interrogatory:

Preamble:

In Hydro One's updated cost allocation study shown in Table 1, the Total Hydro One Revenue Requirement allocated to Export for 2020 is \$22.1 million.

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a) Using the proposed ETS rate of \$1.85/MWh, please calculate the estimated revenues collected by Hydro One from exporters paying the ETS rate in 2020 and the resulting cost to revenue ratio.

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b) Using the assumed ETS rate of \$1.05/MWh, please calculate the estimated revenues collected by Hydro One from exporters paying the ETS rate in 2020 and the resulting cost to revenue ratio.

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c) Using the assumed ETS rate of \$1.25/MWh, please calculate the estimated revenues collected by Hydro One from exporters paying the ETS rate in 2020 and the resulting cost to revenue ratio.

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d) Using the assumed ETS rate of \$1.45/MWh, please calculate the estimated revenues collected by Hydro One from exporters paying the ETS rate in 2020 and the resulting cost to revenue ratio.

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e) Please explain the forecasted level of exports in 2020 used to arrive at the results in the responses to part a) to d).

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Response:

a) to d) Hydro One's Revenue Requirement allocated to Export for 2020 is \$22.1 million, but per Elenchus' recommended methodology, the Ontario cost associated with exports is estimated to be \$23.5 million, as shown in Exhibit I, Tab 3, Schedule APPrO-1 part (b).

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 3 Page 2 of 2

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For the purpose of determining the revenue to cost ratio, the estimated revenues are calculated by multiplying the ETS export volume of 18,800,000 MWh by the ETS Rate. The table below shows the estimated 2020 export revenue resulting from the assumed ETS rate in parts (a) to (d) and the resulting revenue to cost ratios.

Response	ETS Rate (\$/MWh)	Volume (MWh)	Estimated Revenues	Ontario ETS Revenue Requirement (Cost)*	Revenue to Cost Ratio
	A	В	C = A X B	D	E = C/D
Part a	1.85	18,800,000	\$34,780,000	\$23,532,133	1.48
Part b	1.05	18,800,000	\$19,740,000	\$23,532,133	0.84
Part c	1.25	18,800,000	\$23,500,000	\$23,532,133	1.00
Part d	1.45	18,800,000	\$27,260,000	\$23,532,133	1.16

^{*} Note: 2020 Ontario ETS Revenue Requirement provided in Exhibit I, Tab 3, Schedule APPrO-1 part (c)

e) The forecast level of exports in 2020, used to derive the results to parts (a) to (d) above, is based on the actual 2018 export volume.

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 4 Page 1 of 5

APPRO INTERROGATORY #4

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3 **Reference:**

4 I2-04-01 p.3

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6 **Interrogatory:**

7 **Preamble:**

Hydro One states that a decrease in the ETS rate will negatively impact the transmission rates that Ontario customers pay.

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a) Please provide the Bill Impacts for each Ontario customer using an assumed ETS rate of each of \$1.05/MWh, \$1.25/MWh, \$1.45/MWh, and \$1.85/MWh.

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b) Please provide a summary chart of the Bill Impacts.

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Response:

a) Please refer to Exhibit I2, Tab 5, Schedule 1 for Bill Impacts using existing ETS rate of \$1.85/MWh.

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- Tables 1 to 6 below provide the 2020 Bill Impacts for typical Medium Density (R1)
 Residential and General Service Energy less than 50 kW Customer customers using
- 22 an assumed ETS rate of \$1.05/MWh, \$1.25/MWh and \$1.45/MWh.

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 4 Page 2 of 5

ETS Rate of \$1.05/MWh

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Table 1: Typical Medium Density (R1) Residential Customer Bill Impacts

	Typical R1 Residential Customer		
	400 kWh	750 kWh	1,800 kWh
Total Bill as of May 1, 2018 ¹	\$83.40	\$121.75	\$236.81
RTSR included in 2017 R1 Customer's Bill (based on 2016 UTR)	\$4.78	\$8.96	\$21.50
Estimated 2019 Monthly RTSR ⁴	\$5.10	\$9.56	\$22.95
2019 increase in Monthly Bill	\$0.13	\$0.24	\$0.58
2019 increase as a % of total bill	0.2%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$5.57	\$10.44	\$25.05
2020 increase in Monthly Bill	\$0.47	\$0.88	\$2.10
2020 increase as a % of total bill	0.6%	0.7%	0.9%

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Table 2: Typical General Service Energy less than 50 kW Customer Bill Impacts

	GSe Customer Monthly Bill		
	1,000 kWh	2,000 kWh	15,000 kWh
Total Bill as of May 1, 2018 ¹	\$198.93	\$367.73	\$2,562.20
RTSR included in 2017 GSe Customer's Bill (based on 2016 UTR)	\$10.63	\$21.26	\$159.47
Estimated 2019 Monthly RTSR ⁴	\$11.35	\$22.69	\$170.21
2019 increase in Monthly Bill	\$0.29	\$0.58	\$4.33
2019 increase as a % of total bill	0.1%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$12.39	\$24.77	\$185.81
2020 increase in Monthly Bill	\$1.04	\$2.08	\$15.60
2020 increase as a % of total bill	0.5%	0.6%	0.6%

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 4 Page 3 of 5

ETS Rate of \$1.25/MWh

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Table 3: Typical Medium Density (R1) Residential Customer Bill Impacts

	Typical R1 Residential Customer		
	400 kWh	750 kWh	1,800 kWh
Total Bill as of May 1, 2018 ¹	\$83.40	\$121.75	\$236.81
RTSR included in 2017 R1 Customer's Bill (based on 2016 UTR)	\$4.78	\$8.96	\$21.50
Estimated 2019 Monthly RTSR ⁴	\$5.10	\$9.56	\$22.95
2019 increase in Monthly Bill	\$0.13	\$0.24	\$0.58
2019 increase as a % of total bill	0.2%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$5.55	\$10.41	\$25.00
2020 increase in Monthly Bill	\$0.46	\$0.85	\$2.05
2020 increase as a % of total bill	0.5%	0.7%	0.9%

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Table 4: Typical General Service Energy less than 50 kW Customer Bill Impacts

	GSe Customer Monthly Bill		
	1,000 kWh	2,000 kWh	15,000 kWh
Total Bill as of May 1, 2018 ¹	\$198.93	\$367.73	\$2,562.20
RTSR included in 2017 GSe Customer's Bill (based on 2016 UTR)	\$10.63	\$21.26	\$159.47
Estimated 2019 Monthly RTSR ⁴	\$11.35	\$22.69	\$170.21
2019 increase in Monthly Bill	\$0.29	\$0.58	\$4.33
2019 increase as a % of total bill	0.1%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$12.36	\$24.72	\$185.41
2020 increase in Monthly Bill	\$1.01	\$2.03	\$15.20
2020 increase as a % of total bill	0.5%	0.5%	0.6%

Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 4 Page 4 of 5

ETS Rate of \$1.45/MWh

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Table 5: Typical Medium Density (R1) Residential Customer Bill Impacts

	Typical R1 Residential Customer		
	400 kWh	750 kWh	1,800 kWh
Total Bill as of May 1, 2018 ¹	\$83.40	\$121.75	\$236.81
RTSR included in 2017 R1 Customer's Bill (based on 2016 UTR)	\$4.78	\$8.96	\$21.50
Estimated 2019 Monthly RTSR ⁴	\$5.10	\$9.56	\$22.95
2019 increase in Monthly Bill	\$0.13	\$0.24	\$0.58
2019 increase as a % of total bill	0.2%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$5.54	\$10.39	\$24.94
2020 increase in Monthly Bill	\$0.44	\$0.83	\$1.99
2020 increase as a % of total bill	0.5%	0.7%	0.8%

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Table 6: Typical General Service Energy less than 50 kW Customer Bill Impacts

	GSe Customer Monthly Bill		
	1,000 kWh	2,000 kWh	15,000 kWh
Total Bill as of May 1, 2018 ¹	\$198.93	\$367.73	\$2,562.20
RTSR included in 2017 GSe Customer's Bill (based on 2016 UTR)	\$10.63	\$21.26	\$159.47
Estimated 2019 Monthly RTSR ⁴	\$11.35	\$22.69	\$170.21
2019 increase in Monthly Bill	\$0.29	\$0.58	\$4.33
2019 increase as a % of total bill	0.1%	0.2%	0.2%
Estimated 2020 Monthly RTSR ⁵	\$12.33	\$24.67	\$185.00
2020 increase in Monthly Bill	\$0.99	\$1.97	\$14.79
2020 increase as a % of total bill	0.5%	0.5%	0.6%

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b) The table below provides a summary of the 2020 Bill Impacts for Medium Density (R1) Residential Customer and General Service Energy less than 50 kW Customer customers at typical consumption levels.

	Medium Density (R1) Residential Customer @ 750 kWh		General Service Energy less than 50 kW Custome @ 2,000 kWh	
	Change in Total Bill	Change in Total Bill	Change in Total Bill	Change in Total Bill
ETS Rate: \$1.05/MWh	\$0.88	0.72%	\$2.08	0.56%
ETS Rate: \$1.25/MWh	\$0.85	0.70%	\$2.03	0.55%
ETS Rate: \$1.45/MWh	\$0.83	0.68%	\$1.97	0.53%
FTS Rate: \$1.85/MWh	\$0.79	0.64%	\$1.86	0.51%

Witness: Clement Li

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Filed: 2019-08-02 EB-2019-0082 Exhibit I Tab 03 Schedule 5 Page 1 of 1

APPRO INTERROGATORY #5

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3 **Reference:**

4 I2-04-01 p.2

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6 **Interrogatory:**

7 **Preamble:**

- 8 Hydro One refers to the Elenchus Study filed in Exhibit H1, Tab 5, Schedule 1,
- 9 Attachment 1 of the application in EB-2014-0140.

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In this application, Hydro One updated the 2015 Elenchus cost allocation model utilizing the latest available information.

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Please confirm that Elenchus will be available to testify to support the Elenchus Study. If not, please confirm that Hydro One will have witnesses available.

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Response:

- 18 Elenchus will not be available to testify to support the Elenchus Study. Hydro One will
- 19 have witnesses available to discuss this topic.