

GENERAL APPLICATION INFORMATION

The CIA Application (Form B) is for Generators with a project size of greater than 10 kilowatts (kW) who are applying for a Connection Impact Assessment (CIA), including:

- New Generators
- Generators applying for revision(s) to their original CIA
- Existing Generators who are modifying or upgrading information/equipment at their existing site, e.g. teleprotection settings
- Net Metering Projects in excess of 10 kilowatts (kW)
- Existing microFIT Generators who are adding a Net Metering Connection (i.e. Total combined Generation in excess of 10kW)
- This form is NOT for generation sizes of 10 kW or less (i.e. microFIT or Net Metering). Please fill out and submit the Micro-generation Connection Application (Form C) available at:
<http://www.hydroone.com/Generators/Pages/Distributed%20Generation.aspx>

For technical requirements of Hydro One's FIT projects, refer to the "*Distributed Generation Technical Interconnection Requirements for Interconnections at Voltages 50kV and Below*" available at:

<http://www.hydroone.com/Generators/Pages/Distributed%20Generation.aspx>.

Note: The application form is a smart PDF form. For best results, please complete the form using Adobe Reader. Adobe Reader can be downloaded for free from <https://get.adobe.com/reader/>

Application Submission Instructions:

Please complete the form electronically, print it and send it along with the fees and other required documents by mail to:

Hydro One Networks Inc.
Attn: Dx Generation Connections Group
Generation Connection Application
185 Clegg Road
Markham, Ontario L6G 1B7

Important Notes

- Hydro One encourages all applicants to fill out the form electronically. Printable PDF versions of the form are available by request to: DxGenerationConnections@HydroOne.com or 1-877-447-4412.
- Applicants are cautioned NOT to incur major expenses until Hydro One approves to connect the proposed generation facility.
- All technical submissions (i.e. Single Line Diagrams (SLD's), etc.) must be signed and sealed by a licensed Ontario Professional Engineer (P.Eng.). Hydro One also highly recommends that all CIA Applicants have a P.Eng review Section L "Generation Characteristics" of this Application.
- All fields in this Application are mandatory, except where noted. Incomplete applications will be returned by Hydro One.
- Ensure to complete the "Customer Checklist – Common CIA Errors". The checklist ensures applicants are not missing important information on their CIA Applications.
- The Form B submitted must be the original copy, not a scanned copy.
- The site restrictions in O. Reg. 274/18 which were administered by electricity distributors such as Hydro One have been replaced by amendments to the Planning Act (Ontario) that puts siting and planning requirements for renewable energy generation facilities under municipal oversight. It is recommended that you discuss municipal permitting and approvals requirements with the planning department in the municipality where your Generation project is sited before you proceed.

SECTION A – APPLICATION INFORMATION

- **Engineering Stamp:** *Must be signed and sealed by a licensed Ontario Professional Engineer (P.Eng).*
- **Date:** *Fill in the current date*
- **Application Type:** *CHOOSE ONE. New CIA Application = first application for any given project **OR** CIA Revision/Rework = changes to a previous CIA. Your previous CIA must still be valid with Hydro One (i.e. your previous CIA cannot be withdrawn or expired).*
- **Program Type:** *CHOOSE ONE.*
- **Net Metering Type:** *If you selected Net Metering as the program type, please check the applicable boxes.*
- **Subdivision Project Name:** *If you selected "Subdivision" as the Net Metering Type, please provide the name of the subdivision project.*
- **Number of Lots:** *If you selected "Subdivision" as the Net Metering Type, please provide the number of lots in the development.*
- **Project Name:** *Provide the exact project name of your proposed generation facility. Hydro One will use this name along with your Project Number (if one already exists) to identify your project in our system going forward.*
- **IESO Feed-In Tariff (FIT) Contract Number and IESO Reference Number:** *Provide the contract and reference numbers the IESO has provided to you upon approving your IESO FIT Application. This would have been provided to you prior to your FIT contract being issued. Providing this number on your application allows us to cross reference your project with the OPA in various stages of the application process.*
- **Ontario Corporate Number OR Business Identification Number:** *PROVIDE ONE.*
- **Proposed In-Service Date:** / / **(dd / mm / yyyy):** *Provide the date your generation facility will officially be connected and producing energy on Hydro One's distribution system. If you are unsure how to determine an In-service Date, contact your Design Engineer (for new applicants) or your Hydro One Account Executive (for existing customers). **Important note:** the In-service Date (ISD) you provide must be as accurate as possible. Hydro One schedules station maintenance, outages and other work based on ISDs. Failure to provide an accurate ISD could cause delays to your project's connection timeline.*
- **Original CIA Project ID# (if applicable):** *If this is a revision to a previous CIA Form B Application that you submitted to Hydro One, and that Application is still valid with Hydro One, provide your current CIA Project Number.*
- **Revised Fields:** *If you are submitting a revised CIA Application, list the fields that have changed from your previous CIA in the box provided.*

SECTION B – PROJECT LOCATION

In the Project Location section, provide project location information and complete accordingly.

SECTION C – CONTACT INFORMATION

In the Project Contact Information section, provide contact information. Note that the Generator and Owner may be the same. Also note that PO boxes and Rural Routes will not be accepted. Only list a physical address. Aside from the Single Point of Contact, the person(s) listed may be contacted by Hydro One for other matters regarding your project when necessary. Due to Privacy Laws, Hydro One will only release information to the persons listed on the Form B.

- **Who is the single point of contact for this project?** *This will be the person within your company who receives all communications from Hydro One regarding the project. Normally, this would be someone in a Project Management role. He/she will be responsible for communicating information regarding your proposed facility.*

SECTION D – CUSTOMER STATUS

- **Is the owner an HST registrant?** Normally, a business – sole proprietor, partnership, corporation – has a Harmonized Sales Tax (HST) Number as a requirement to conduct regular business in Ontario.
- **If yes, provide your HST registration number:** If you answered “Yes” to “Are you an HST registrant?” provide your HST number. Failure to provide an accurate number will delay your application. If you are unsure of your HST number, please [sign in to your Canadian Revenue Agency business account](#) to retrieve it.
- **Is there an existing Hydro One customer account at the project location?** Choose “Yes” if there is an existing electrical connection to Hydro One’s grid (i.e. load and/or generation) at the Project Location OR choose “No” if this generation facility will be the only connection to Hydro One’s grid at the location.
- **If yes, what is the Hydro One 12-digit account number of the property:** If you answered “Yes” to the previous question, provide the existing account number (i.e. customer load account number OR generation customer account number) found in the top right corner of your bill. Also select “Yes” or “No” to “Is the account holder aware of this application?” and “Does your account fall within a residential-rate classification?”
- **Customer name registered on existing Account:** Provide the name on the existing customer account you provided in the previous question. If you answered “No” in the previous question, leave this space blank.
- **Barcode of nearest Hydro pole serving project location:** If there is no existing Hydro One customer associated with the project property, ensure to provide the barcode of the nearest pole. This is necessary to identify the project location. Failure to provide the account number in 10(b) or the pole ID in 10(g) may result in application delays.

SECTION E – EXISTING GENERATION

If you have an existing generation facility located on your premise already, indicate what type of generation it is and provide the IESO Contract Number (for each).

SECTION F – PROJECT INFORMATION

- **Station Name:** provide the name of the Hydro One station that your facility will connect to (e.g. “CONESTOGA DS”).
- **Feeder:** Provide the name of the feeder that your facility will connect to (e.g. “F1” or “M1”).
- **Project Size:** Provide the total amount of generation your facility will produce, i.e. the facility’s maximum kW output. **Important note:** The project size on this application must match the project size you provided on your IESO contract (if applicable).
- **Equipment Capacity:** Provide the total amount of capacity in kilowatts (kW) of your facility’s equipment. **Important note:** For more information on the technical requirements of distribution generation facilities, see section 2.1.2 of [Hydro One’s Technical Interconnection Requirements \(TIR\)](#). Note: Typically the generator’s Name Plate Capacity or Gen-Set Name Plate Capacity shall be considered as project size.
Fuel / Renewable Energy Type: CHOOSE ONE. Provide the type of energy your generation facility will produce. If it is “Other”, ensure to provide the type of generation you are proposing.
- **Connection Voltage (kV):** Proposed or existing connection voltage to Hydro One’s distribution system (if this is a CIA revision application, list the kV as stated in your original CIA study agreement. If this is a new CIA application, provide the connection voltage of your proposed facility. If this is a CIA revision application, provide the connection voltage you listed on your previous CIA application.
- **Type of connection:** CHOOSE ONE. Single phase **OR** Three phase. **Important note:** FIT applicants may choose to connect Three phase in an area currently serviced by a Single Phase line resulting in a possible line expansion to supply the required voltage and phasing for the project.

SECTION G – LOAD INFORMATION

In the Load Information section, provide Maximum Consumption of DG Facility, Average Monthly Consumption in kW, Maximum Load Current (at the connection point to Hydro One system) and Maximum Inrush Current (to loads at the connection point to Hydro One system).

SECTION H – CONNECTION INFORMATION

- **DOM** means “Distribution Operating Map”. From the original DOM that Hydro One provided to you during your Pre-FIT consultation, outline where your generation facility site will be located in reference to the existing feeder. Indicate the POC-PCC distances. Please be sure to include the project location’s GPS co-ordinates. If you require a DOM, you can request one our Hydro One website at: https://www.services.hydroone.com/forms/DOM_Request.aspx.
- **Single Line Diagram (“SLD”): Provide an SLD of the Generator’s facilities including the PCC, transformer and connecting station, feeder and supply voltage. SLD Drawing No. and Rev: **Important note:** An SLD is a very important piece of your application and must accurately reflect the project information provided on the Form B. Submitting an accurate SLD that meets Hydro One’s standards ensures your application is not delayed. Failure to submit an acceptable SLD will result in your application being deemed incomplete. Please refer to [Hydro One’s Technical Interconnection Requirements](#) for more information on SLDs and other technical requirements for your generation facility. Please ensure that the SLD is no larger than 11x17 inches.**
- **“Point of Connection” or “POC”** means the point where the new Generator’s connection assets or new line expansion assets will be connected to the existing Hydro One distribution system. **“Point of Common Coupling” or “PCC” or “Point of Supply”** means the point where the Generation facility is to connect to Hydro One’s distribution system. The POC and the PCC may be the same, especially if the Generation facility lies along the existing Hydro One distribution system; or the PCC may be located somewhere between the POC and the Generation facility if the new line will be owned by Hydro One.
- **GPS coordinates of the following:** All three GPS coordinates must be provided: POC, PCC and generation facility. GPS Format: Latitude, Longitude - Degree Decimal (e.g. 49.392, -75.570).
- **Length of line distance from the POC to the PCC:** Provide the exact distance in kilometres of the line from the POC to the PCC.
- **Length of line distance from the PCC to the Generation Facility** (refer to Appendix A of Form B): Provide the exact distance in kilometres of the line from the PCC to your proposed generation facility. See Appendix A at the end of the application document for a diagram.
- **Conductor type/size:** Provide what type of conductor you will be using, including with the size. E.g. ACSR/ CU/ AL and size in kcmil or AWG
- **Fault contribution from the Generator’s Facilities, with the fault location at the PCC:**
 - Three-phase generators: 3-phase short circuit
 - Single-phase generators: 1-phase short circuit
- **Connection Figure:** See Appendix A at the end of the application document and choose ONE appropriate figure that is most applicable to how your proposed generator will connect.

Important Notes:

If this project requires line expansion work between the **POC** and **PCC**, Hydro One will provide a cost estimate to construct any line located on public road right-of-way. The cost estimate will include a breakdown of **Uncontestable** work (i.e. overbuild to existing line) that can only be performed by Hydro One, as well as **Contestable** work (i.e. new construction/green-field) that can be performed by the Generator/their contractor **or** Hydro One. (Both **Uncontestable** work and **Contestable** work requires the design to Hydro One specifications). Hydro One will become the owner of the line expansion.

For a Generator-owned line, the Generator may choose to apply for installation of the line on existing Hydro One-owned poles. This is known as an application for **Joint Use (JU)** of poles. If the application is accepted, Hydro One will provide the Generator with information on initial connection costs, annual pole-space rental and emergency service (ES) fees, and required JU & ES Agreements.

SECTION I – ENERGY STORAGE

In the Energy Storage section, provide Number of Units, Energy Storage Unit Size (kWh), Total Energy Storage Size (kWh), Inverter Size (enter zero if inverter is shared with generation unit(s)) and Energy Storage Facility Control Strategy.

SECTION J – LOAD DISPLACEMENT INFORMATION

In the Load Displacement Information section, provide the Operating Mode, Transition Type, and Time that Generator Remains Parallel to the Grid (closed transition only).

For load displacement generation facilities, please attach a schedule of the forecasted maximum generation output information (i.e. Watts and VARs) during the minimum and maximum of the load facility to which the load displacement generator is connecting (see Appendix C from the application).

SECTION K – EMERGENCY BACKUP GENERATOR INFORMATION

In the Emergency Backup Generator Information section, provide the Transition Type and the Time that Generator Remains Parallel to Grid (closed transition only).

SECTION L – GENERATION CHARACTERISTICS (1/1)

In the Generation Characteristics section, complete all fields accordingly.

For facilities with multiple generators: If your generators have different characteristics, please use the “Add Page” button and provide the characteristics for each generator on the additional pages.

Important note:

- Hydro One recommends that all CIA Applicants have a P.Eng review this section. Failure to complete this section correctly will result in delays to your application.

SECTION M – INTERFACE TRANSFORMER

SECTION N – INTERMEDIATE TRANSFORMER

SECTION O – HIGH-VOLTAGE GROUNDING TRANSFORMER

In the Interface Transformer section, complete all fields accordingly.

At the Generator’s expense, and if requested, Hydro One may provide transformation up to a maximum of 500KVA three-phase, as described in the Hydro One Conditions of Service (Section 3.5 item C.4).

The term “High Voltage” refers to the connection voltage to Hydro One’s distribution system and “Low Voltage” refers to the generation or any other intermediate voltage.

Providing a photo of transformer equipment along with this application may help expedite your application quicker.

SECTION P – SUBMISSION CHECKLIST

Please ensure the following items are completed prior to submission. Your application will not be processed if any part is omitted or incomplete:

- Payment in full by cheque, including applicable taxes (by cheque payable to “Hydro One Networks Inc.”).*
- Completed Form B stamped by a Professional Engineer*
- Signed Study Agreement (original signature is required)*
- Single Line Diagram (SLD) of the Generator’s facilities, must be stamped by a Professional Engineer*
- Distribution Operating Map (DOM) – Not required for Load Displacement and Net Metering projects.*
- Load Displacement Generation Facility’s load and generation schedules (if applicable)*
- Load Displacement Generation Facility’s mode of operation (if applicable)*
- Energy Storage Facility operating strategy description and parameters (if applicable)*
- Emergency Backup Generation Facility’s mode of operation (if applicable)*

Section Q – CIA Application Fee Checklist

Payment in full by cheque, including applicable taxes. Cheque should be made payable to “Hydro One Networks Inc.” Refer to the [Connection Impact Assessment Fee Schedule](#) for fees.

Disclaimer

By submitting a Form B, the Proponent authorizes the collection by Hydro One Networks Inc. (“Hydro One”), of any agreements and any information pertaining to agreements made between the Proponent and the Independent Electricity System Operator from the Independent Electricity System Operator, the information set out in the Form B and otherwise collected in accordance with the terms hereof, the terms of Hydro One’s Conditions of Service, Hydro One’s Privacy Policy and the requirements of the Distribution System Code and the use of such information for the purposes of the connection of the generation facility to Hydro One’s distribution system.