



DISTRIBUTION CONNECTED GENERATOR INTERCONNECTIONS

Interconnection Guidelines for 35 kV and below

This document describes the Generator Interconnection process with BC Hydro for potential Power Generators (“Applicants”) starting from the Preliminary Study. This study is not mandatory, but may assist Applicants to evaluate the technical and economic feasibility of the Applicant’s proposed generator interconnection prior to a competitive acquisition process.

A Generator Interconnection Preliminary Application does not guarantee project feasibility and interconnection costs.

Process

1. Document Submission

The Applicant completes the Generator Interconnection Preliminary Application and forwards it along with the required information as shown on the application, to:

BC Hydro
Generator Interconnection and
Transmission Services
333 Dunsmuir Street, 10th Floor
Vancouver, B.C. V6B 5R3

Generator Interconnection and Transmission Services (GITS) will notify the applicant within ten business days if the application is incomplete. When BC Hydro receives all requested information, the application will be time-stamped to establish the Applicant’s priority in the Distribution Interconnection queue. An electronic copy is preferred but not required.

2. Preliminary Study

The Preliminary Study evaluates the feasibility of the project interconnection and provides the Applicant with preliminary cost

estimates for BC Hydro to interconnect the Generator to BC Hydro’s Distribution System. The interconnection costs arising out of this study are estimates only; they should be used for budgetary or planning purposes only and should not be considered as a quotation of actual costs of interconnection. This cost estimate may include any of the following:

- Feeder extension and/or upgrade
- Substation capacity upgrade
- Substation and/or transmission protection upgrade
- Generator data transfer to BC Hydro
- Revenue metering
- Prevention of out-of-synchronism close at feeder circuit reclosers and feeder position circuit breakers

The Study will typically be completed in 4 to 14 weeks, depending on the complexity of the proposed project and number of other interconnection requests under study. The cost of the Preliminary Study is borne by the Applicant and varies with the complexity of the proposed project. The Applicant must provide the full deposit and a completed Application to proceed with the Study. BC Hydro will bill the actual study to the generator/applicant.

Upon completion of the Preliminary Study, BC Hydro provides a report to the Applicant.

Then the Applicant will have an indication whether the proposed project is economically and technically viable, and will decide whether to proceed with the interconnection.



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3. Impact/Design Study and Project Interconnection Requirements

Once GITS or BC Hydro's Distribution Engineering have received full payment and an updated application, BC Hydro will start the impact/design studies, which will provide the design cost estimates. These studies assess whether the project meets the distribution interconnection requirements and evaluate all the necessary additions and modifications of BC Hydro and BCTC's facilities needed to connect the Generator to BC Hydro's Distribution system.

The Project Interconnection Requirements are prepared as part of the study with the Design Cost Estimate above. It includes all the points referred to in the study and may also include feeder loss impact calculations and system transient voltage studies.

The Study will typically be completed in 4 to 30 weeks, depending on the complexity of the proposed project and number of other interconnection requests under study. The cost of the Impact/design study is borne by the Applicant and varies with the complexity of the proposed project. Study costs typically range from \$20,000 to \$65,000.

4. Agreements

BC Hydro prepares an Interconnection Agreement (IA), which is presented to the Applicant for final execution. The IA is a legal agreement between BC Hydro and the Applicant. One of its schedules is the Project Interconnection Requirements (technical interconnection requirements).

Upon receipt of the IA, the Generator will execute the IA within 15 working days. Before implementation, a facility letter/agreement between BC Hydro Engineering and the applicant will be signed.

The facility letter/agreement will include:

- Costs for BC Hydro facilities needed to interconnect the Applicant's generator
- Construction and payment schedules, and timelines for implementation
- Letter of Credit for the network upgrade portion, if required.

5. Implementation

Both BC Hydro and the Generator construct facilities to physically interconnect the Applicant's generator to BC Hydro's Distribution system, as specified in the Project Interconnection Requirements. Prior to final acceptance of customer equipment, BC Hydro prepares a Local Operating Order that defines the operating boundaries between the two parties and the procedure for either party to isolate for a Guarantee of Isolation. Synchronization to BC Hydro's system occurs once the Local Operating Order is in place and BC Hydro has completed its role in commissioning and acceptance of the Generator.

At the end of the implementation phase, BC Hydro will provide the Applicant with an accounting of the actual costs incurred and will invoice the Applicant for the balance of the costs owed.