

# Distribution generator interconnections

## Closed transition transfer (CTT) fact sheet

Closed transition transfer (CTT) is a method by which a customer can operate a standby generator at their facility in parallel with the BC Hydro Distribution System for a short duration of time, during the transfer of critical load to/from the BC Hydro system from/to the generator, without power interruption. CTT is also called make-before-break, bumpless, or seamless load transfer.

### A CTT SYSTEM IS CLASSIFIED AS FOLLOWS:

1. Certified Momentary: If a CSA certified Automatic Transfer Switch (ATS) is used for the CTT  $\leq$  100 ms. 'Application Checklist 1' refers the list of documentation required for the Certified Momentary CTT application.
2. Extended (a.k.a. soft): If the transition time for the CTT is between 100 ms and 20 s. 'Application Checklist 2' refers the list of documentation required for the Extended CTT application.
3. Shore Power: If the application of the CTT is intended for Ship to Shore connection and the transition time is limited within 90 s. 'Application Checklist 3' refers the list of documentation required for the Shore Power CTT application.

A generator must not under any circumstances run in parallel or synchronized with the BC Hydro system until all the requirements of the Closed-Transition review process are met including the completion of Site Acceptance Testing and a Declaration of Compatibility (DoC).

BC Hydro does not need to review facilities or site information related to standby generation if it is operated in open-transfer mode and is not operated in parallel with the BC Hydro system.

### HOW LONG WILL MY CTT PROJECT TAKE TO COMPLETE?

1. CTT Study
  - a. A Certified Momentary or Extended CTT study typically takes between 1 to 2 months, upon receipt of a complete/valid submission and deposit. The study deliverable is the Project Interconnections Requirements document.
  - b. A Shore Power CTT study can take between 3 to 4 months.
2. CTT Implementation – The Site Acceptance Testing (and signoff of the DoC) typically occurs over several days but the lead-time to schedule this item will vary, depending on the location within the Province. The Lower Mainland sites will require a minimum 2 weeks lead-time.

We also publish a CTT Process Flowchart on [bchydro.com](http://bchydro.com) on the **Distribution Generator Interconnections** page so that you can effectively navigate our connection process

### WHAT DOES A CTT PROJECT COST?

BC Hydro collects a \$11,550 deposit (\$11,000 plus applicable taxes) for Certified Momentary and Extended CTT Projects before any work can begin.

Shore Power CTT Projects require a \$22,050 deposit (\$21,000 + applicable taxes) before any work can begin.

The above deposits include a \$2,100 (\$2,000 + applicable taxes) non-refundable application fee.

CTT Projects are billed on actual costs. Cost reconciliation will be done at project completion. Any unused balance will be refunded, and overages will be billed.

## WHAT ARE THE TECHNICAL INTERCONNECTION REQUIREMENTS OF A CTT INTERCONNECTION PROJECT?

You can review the Technical Interconnection Requirements for Closed Transition Transfer of Power Generators (a.k.a., CTT Interconnection Requirements) on [bchydro.com](http://bchydro.com) on the **Distribution Generator Interconnections page**.

Shore Power CTT technical requirements (a.k.a. DIR Amendment 2 Requirements for terminals supplying ships capable of running in parallel with BC Hydro (CTT Shore Power) – July 17, 2017) can be viewed [here](#).

## WHAT PROJECT OUTCOME CAN I EXPECT?

Once BC Hydro accepts your CTT application, we will issue you a signed DoC, which permits you to operate your generator in parallel with the BC Hydro Distribution System in CTT manner.

Important: Customers are not permitted to operate generators in parallel with the BC Hydro Distribution System prior to receiving a signed DoC. Rule 84-002 of the Canadian Electrical Code.

## HOW CAN I CONTACT THE DISTRIBUTION GENERATOR INTERCONNECTION TEAM?

**Please contact us with any questions at [Distribution.Generators@bchydro.com](mailto:Distribution.Generators@bchydro.com).**

You can visit our **Distribution Generator Interconnections** website page to review and/or download application forms, reference guides and fact sheets.

Payments must be sent to the address below or we cannot guarantee your payment will be received.

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