

INTERCONNECTION REQUIREMENTS FOR POWER GENERATORS, 35 kV and Below (May 2010)

Amendment 1: October 10, 2015

Effective immediately Section 6.4 of BC Hydro 35 kV and Below Interconnection Requirements for Power Generators (May 2010) is replaced with the text below. Section 6.4 has been amended to add cellular modem communication for plants up to 10 MVA and remove the option of a dial-up analog phone line connection, which is no longer supported by BC Hydro.

6.4 Operating Data/Status Telemetering

BC Hydro requires telemetering equipment for PG plants rated 1.0 MVA and up. Some or all of this data may need to be supplied continuously to BC Hydro Control Centres. The specific requirements depend on the size of the plant and other power generators in the area. Telemetry information requirements are as follows:

Table 4: Generator Operating Data/Status Telemetry Summary

Plant Rating	Data	Communications
>= 1 MVA but < 10 MVA	 plant MW, plant Mvar, plant MW.h (hourly), plant kV, plant interconnection status Line/feeder telem at POI (if different than plant): kV, MW, MVar if the total generation connected to one feeder is >= 1 MVA but < 10 MVA, line/feeder telem at BCH station from BCH RTU (as Network Upgrade item) 	 Unsolicited report by exception via RTU with DNP 3.0 protocol over one of: Wired (e.g. ADSL) Internet connection Stationary Satellite Broadband link Cellular modem with reliable cellular coverage at modem location (subject to BC Hydro acceptance of a signal strength test report from the proponent, and site confirmation that cell handsets work reliably) A Static Internet IP address and a firewall are required for the PG RTU. Overall polling interval for all data must be less than or equal to 4 seconds.
>= 10 MVA but < 30 MVA	 unit MW, unit Mvar, unit MW.h (hourly), unit kV, unit connection status; PSS status if equipped with PSS; AVR status if equipped with AVR. Line/feeder telemetry at POI (if different than unit aggregate): kV, MW, MVar If the total generation connected to one feeder is >= 10 MVA but < 30 MVA, line/feeder telemetry at BCH station from BCH RTU (as Network Upgrade item) 	 Real-time report by exception using an RTU with DNP 3.0 protocol reporting to a data concentration point. Single dedicated (always on) communication link, such as telecommunication company leased line, fibre optic, microwave, etc. with entrance protection, provided overall polling interval for all data is less than or equal to 2 seconds, or Stationary Satellite Broadband link with static Internet IP address and firewall, provided overall polling interval for all data is less than or equal to 4 seconds.

See next page for Table 4 Notes.

Table 4 Notes:

- a) This table applies to PGs whether they do or do not export electricity across the revenue meter into the BC Hydro distribution system.
- b) For PGs < 1MVA, if the last PG on a line/feeder results in a total line/feeder interconnected capacity ≥ 1 MVA, line/feeder telemetry will also be requested where not cost-prohibitive.
- c) Analog line entrance protection must be provided for wired telecommunications channels
- d) Unit connection status implies that all CBs required to connect the unit to the BC Hydro system are closed.
- e) These requirements are waived for standby generators that parallel BC Hydro's system only infrequently or for short periods of time.