

1 Q. **T&D Planning**

2 Provide a description of operating situations when Hydro's Transmission Planning
3 group assists the Energy Control Centre (ECC).

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6 A. Hydro's Transmission Planning group assists the System Operations department,
7 including the Energy Control Centre (ECC), in a number of areas related to the safe
8 and reliable operation of the power system.

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10 The Transmission Planning group assists System Operations by performing:

- 11 • Technical analyses in support of the development of operating
12 instructions and procedures. Operating instructions and procedures are
13 used by the System Operations group and the ECC in effectively
14 managing and operating the power system and to safely operate assets
15 within their design limits.
- 16 • Operational studies to help the ECC better understand power system
17 vulnerabilities following the loss of a power system element, leading to
18 the development of contingency plans addressing the loss of a
19 subsequent power system element. Contingency plans of this type are
20 used by the ECC to prepare for a subsequent contingency event
21 following the loss of a major power system element, such as a
22 transmission line, transformer or bus.
- 23 • Consulting services in matters related to the safety of workers, power
24 system dynamics, equipment ratings and protection of power system
25 elements. From time to time, the ECC requests input from Transmission
26 Planning on various operating issues and uses their feedback to safely
27 and reliably operate the power system and its elements.

- 1 • Power system modelling analyses in support of the development of
2 appropriate power system and asset protection settings, leading to
3 improvements in power system reliability.
- 4 • Dynamic power system modelling analyses to simulate power system
5 disturbances to help System Operations better understand the impact of
6 the disturbance event on the power system and associated dynamic
7 response. This supports the System Operations group in its goal to
8 continually improve the reliability of the power system and to
9 recommend improvements to the management of the power system.