

1 Q. Provide a detailed explanation of the coordination between Hydro and
2 Newfoundland Power that occurred relating to the rotating power outages from
3 January 2, 2014 to January 8, 2014, including the process used to determine what
4 customers would be affected each time, the amount of notice to Newfoundland
5 Power before outages were implemented, and the communication process with
6 Hydro's customers and with Newfoundland Power about the outages.

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9 A. Beginning on December 27, 2013, and leading up to January 2, 2014,
10 communications with Newfoundland Power (with focus on the capacity issue)
11 occurred with information sharing on the outages affecting Hydro's generating
12 assets and its ability to meet the system demand. Also discussed were the short-
13 term load forecast for the January 2, 2014 evening's peak and the outlook for the
14 remainder of the week. Based on the information, it was decided by both utilities
15 to issue a conservation request to the public. In the days leading up to January 2,
16 2014, Hydro's Generation Loading Sequence and Generation Shortage protocol was
17 followed (refer to response to PUB-NLH-033). The last step in this protocol is to
18 shed load by rotating outages. Both utilities prepared for the possibility to have
19 rotating outages.

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21 With increasing system load and rapidly declining operating reserves, Hydro's
22 Energy Control Centre (ECC) requested the Newfoundland Power Control Centre to
23 commence rotating outages at 1613 on January 2, 2014. At this point, there were a
24 number of key elements that were monitored to support the decisions on the
25 timing and the amount of load to interrupt. These elements were: amount of
26 remaining generation reserve, system frequency and system voltages. System
27 frequency, total generation and system voltage data were shared between the

1 utilities in real time. The determining factor for rotating outages was the system
2 frequency. Once Hydro determined it was unable to maintain the system frequency
3 (60 Hz), rotating outages were implemented. The process is as follows:

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5 1. Hydro's Energy Control Centre request Newfoundland Power's Control
6 Centre to shed load and start rotating outages;
- 7 2. Newfoundland Power would take the request and shed load;
- 8 3. Both utilities would monitor the system frequency and system voltages to
9 ensure they are within acceptable levels; and
- 10 4. Hydro would make additional requests to shed more load when frequency
11 could not be maintained.

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13 It should be noted that on January 2, 2014 as Newfoundland Power was
14 implementing rotating outages, they called Hydro's Energy Control Centre each
15 time. This was to ensure close coordination when shedding and restoring customer
16 load to maintain system frequency. However, both utilities decided on January 3,
17 2014 that due to the frequency of the rotating outages, coordination calls were
18 reduced. While both utilities continued to monitor the system, Newfoundland
19 Power ensured the frequency was stable while rotating the outages.

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21 Notice to Newfoundland Power to begin rotating outages was given to their control
22 center in short order (real time). So the request was implemented very quickly.
23 Due to previous discussions between the utilities earlier in the day, both utilities
24 were prepared for the possibility of rotating outages. It should be noted that there
25 were times, due to system voltage constraints, that Hydro specifically requested
26 that customers on the Avalon Peninsula be chosen for outages.

1 For its direct Rural Customers, Hydro established an outage rotation schedule, using
2 30 – 60 minute intervals. This included the Northern Peninsula, the Connaigre
3 Peninsula, Burgeo and South Brook areas.

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5 Both Hydro Customer Service and Corporate Communications were kept updated as
6 to the outages affecting Hydro's customers. They were provided a list of
7 communities and approximate times for the rotating outages. The customer outage
8 database was updated with timely information. Social and digital media (Hydro
9 website, twitter, Facebook) were also used to communicate outage requirements.