

1 Q. Please provide Hydro's analysis of the degree to which the added supply costs of
2 2014 should be considered atypical, specifically addressing the number and nature
3 of unit outages versus other years and weather conditions and explain their impact
4 on load.

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7 A. Hydro's response to PR-PUB-NLH-132 indicates the degree (magnitudes and
8 durations) of the generating issues experienced during the winter of 2014. The
9 forced outages and deratings to generating units, coupled with the cold
10 temperatures and high levels of customer demand, resulted in the need for the
11 significant use of standby generating units as well as the capacity assistance
12 arrangements with Corner Brook Pulp and Paper Limited. These replacement power
13 sources were required in order to minimize the impact to customers, maintain
14 spinning reserves and to ensure the integrity of the power system. Standby
15 generation costs were also incurred during the testing of the units, for weather
16 preparedness and to ensure that units were on in advance of peak load periods.

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18 In its response to PUB-NLH-003 in the *Island Interconnected System Supply Issues*
19 *and Power Outages* proceeding, attached as PR-PUB-NLH-134, Attachment 1, Hydro
20 was only able to determine two other events in the past ten years when it was
21 unable to supply the load of the Island Interconnected System due to unavailability
22 of generation, transmission, and terminal station capacity. These were significantly
23 less impactful to customers. Accordingly, the added supply costs of 2014 are
24 atypical and were prudently incurred, considering the number and nature of unit
25 outages versus other years and the high levels of customer demand, driven by the
26 sustained periods of colder temperatures.

PUB-NLH-003

Island Interconnected System Supply Issues and Power Outages

Page 1 of 1

1 Q. How many times in the period 2004 to 2013 has Hydro been unable to supply the
2 load of the Island Interconnected system due to the unavailability of generation
3 capacity, transmission capacity and terminal station capacity? List each time and
4 identify whether the cause was due to generation or transmission or terminal
5 station capacity problems, weather conditions, planned maintenance, equipment
6 failure or other conditions.

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9 A. The following table indicates the instances in the period from 2004 to 2013 when
10 Hydro was unable to supply the load of the Island Interconnected System due to
11 unavailability of generation, transmission, and terminal station capacity. From a
12 broad system impact, the two extraordinary events that required conservation or
13 curtailment of customers are reflected below.

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Date/Time	Cause	Notes
January 23, 2006 from 1125 to 1230 hours	Unavailability of Generation Capacity/Weather Conditions and Equipment Issues	The Upper Salmon plant experienced frazil ice, Holyrood Unit 2 was not available due to boiler tube failure, the Hardwoods and Stephenville Gas Turbines were de-rated due to issues with fuel nozzles, and the Holyrood Gas Turbine was unavailable.
January 11, 2013 from 0642 hours to 2359 hours	Unavailability of Generation and Transmission Capacity/ Weather Conditions and Equipment Issues	Trips of all three units at Holyrood (with Unit 1 experiencing an extended outage), trip and lockout of the Holyrood terminal station, transmission line TL201 line trip, and significant loss of generation and transmission in the central and western areas. Weather affected the restoration.