

- 1 Q. Reference: Hydro's November 30, 2016 *Energy Supply Risk Assessment*
2 On Page ES-2 of the Liberty Consulting Group *Review of Newfoundland and*
3 *Labrador Hydro Power Supply Adequacy and Reliability Prior to and Post Muskrat*
4 *Falls – Final Report*, it states:
5 "*Hydro's recent assessment of supply adequacy until the interconnection indicates*
6 *reliability violations which Hydro proposes to mitigate but not eliminate. Liberty*
7 *believes the supply risks are greater than suggested by Hydro's assessment and that*
8 *new generation is likely required prior to interconnection.*"
9 Please identify any changes in methodology or approach undertaken in Hydro's
10 *Energy Supply Risk Assessment* dated November 30, 2016 to address Liberty's
11 stated belief that the supply risks are greater than suggested in the *Energy Supply*
12 *Risk Assessment* dated May 27, 2016.
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15 A. Hydro suggests that its data and analysis does not support Liberty's opinion that the
16 supply risks are greater, and therefore Hydro must depend on its analysis for
17 appropriate conclusions and decision making.
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19 Hydro's *Energy Supply Risk Assessment* dated November 30, 2016 was conducted
20 based on the same core principles presented in its *Energy Supply Risk Assessment*
21 dated May 27, 2016, namely consideration of Expected Unserved Energy (EUE)
22 resultant from the unavailability of units.
23
24 While there was no change in the manner in which EUE is calculated, there were
25 other changes in methodology/approach between the two reports. Those are
26 enumerated in Table 1.

Table 1 - Changes in methodology or approach between Hydro's ESRA (May 2016) and Hydro's ESRA (November 2016)

Parameter	ESRA (May 2016)	ESRA (November 2016)
Forecast	Base case and fully stressed reference case presented for both P50 and P90 forecasts	All analysis presented solely on P90 demand forecast; P50 information included as Appendix B.
	One sensitivity load projection considered; preliminary forecast based on then-most recently release provincial economic outlook.	Three sensitivity load projections considered; Stable Utility Demand (I), High Industrial Coincidence (II), High Utility Coincidence (III)
Asset Health and Availability	Range of DAFORs considered for Holyrood Thermal Units only	Availability projected for all asset classes based on internal risk review, as presented in Table 2 - Summarized Asset Reliability Metrics of the ESRA
	Holyrood diesels (10 MW) included as sensitivity	Holyrood diesels (10 MW) included in base assumptions
	Holyrood units considered available at a maximum of 160 MW for Units 1 and 2 and 150 MW for Unit 3	Holyrood units considered available at a maximum of 170 MW for Units 1 and 2 and 150 MW for Unit 3
		Discussion of recent historical asset reliability issues and the resolution of the same.
		Presentation and discussion of current equipment status for identified assets.
		Report expanded to include full discussion of asset health and risks for hydraulic, thermal, and standby units.
Mitigation Alternatives and Options	15 MW of incremental curtailable load considered	10 MW of incremental curtailable load considered
	Advancement of TL267 to be in-service for Winter 2017-18 considered as mitigation alternative	Advancement of TL267 to be in-service for Winter 2017-18 considered as base case assumption.