

1 **Q. (Response to CA-NP-13) Newfoundland Power states (lines 26 to 28)**
 2 **"Newfoundland Power has not conducted studies to determine customer willingness**
 3 **to pay for reliability improvements nor is the Company aware of any such studied.**
 4 **Is Newfoundland Power aware of the June 2009 report undertaken by Ernest**
 5 **Orlando Lawrence Berkeley National Laboratory entitled "Estimated Value of**
 6 **Service Reliability for Electric Utility Customers in the United States" prepared for**
 7 **the U.S. Department of Energy (see website: <http://certs.lbl.gov/pdf/lbnl-2132e.pdf>)?**
 8 **Does Newfoundland Power believe that the conduct of a similar study specific to**
 9 **electricity consumers of this Province would provide useful information in**
 10 **addressing Liberty's statement (see Liberty's Interim Report, page ES-2); "Liberty**
 11 **believes it is time to reassess the service reliability and cost balances that underlie**
 12 **the decisions on what level of supply resources to make available. If not, what does**
 13 **Newfoundland Power recommend that Hydro use to balance costs with the level of**
 14 **supply resources to make available to consumers going forward?**

15
 16 **A. A. Introduction**

17
 18 Newfoundland Power is aware of the 2009 Study undertaken by Ernest Orlando
 19 Lawrence Berkeley National Laboratory entitled "Estimated Value of Service
 20 Reliability for Electric Utility Customers in the United States" ("The Report").

21
 22 The Liberty Consulting Group ("Liberty") comment: "*Liberty believes it is time to*
 23 *reassess the service reliability and cost balances that underlie the decisions on*
 24 *what level of supply resources to make available*" appears, to Newfoundland
 25 Power, to refer to Newfoundland and Labrador Hydro's ("Hydro") loss of load
 26 hours ("LOLH") criterion of 2.8 hours per year.

27
 28 This 2.8 LOLH criterion has been a primary Hydro system planning threshold for
 29 decades. Liberty's comment questions the continued appropriateness of using the
 30 2.8 LOLH criterion as a primary planning threshold given (i) the system events
 31 during the period January 2-8, 2014, and (ii) the Island Interconnected System
 32 will be interconnected with the North American grid.

33
 34 Conducting a study similar to that reflected in the Report would not, in
 35 Newfoundland Power's view, provide particularly useful information in assessing
 36 the balance between service reliability and cost for the island of Newfoundland.
 37 The appropriate means to address Liberty's recommendation is, in Newfoundland
 38 Power's view, for the Public Utilities Board (the "Board") to exercise its powers
 39 under existing regulatory legislation to ensure adequate planning occurs for the
 40 Island Interconnected System.
 41

B. The Report

The Report attempts to estimate what customers are willing to pay to avoid a power interruption or what customers would accept as compensation to avoid a power interruption. Specifically, the Report states:

“Developing these measures generally involves describing a scenario to a residential customer and then asking them what they would be willing to pay to avoid this specific interruption or what they would be willing to accept as compensation (usually described as a credit on their bill) in order to put up with the interruption. The primary reason for using these alternatives to direct cost is the assumption that much of the “cost” of an interruption for residential customers is associated with the hassle, inconvenience, and personal disruption of the interruption, rather than direct out-of-pocket expenses, like buying candles or flashlight batteries.”¹

The scenarios presented in the Report are based on hypothetical outages that could be momentary in nature or last for up to 8 hours at a time during different seasons, days of the week and time of day. The results of the Report indicate there are differences in the amount customers are willing to pay based on their income and average usage. Generally, customers with higher incomes were willing to pay more than customers with lower incomes.²

These results also indicate that customers in one service area may be willing to pay more to avoid interruptions than customers in another service. Balancing service reliability and cost in this manner would result in some service areas having better or worse reliability than others.

The Report did not consider the full array of consequences of extreme electrical system events like those that occurred on the Island Interconnected System during the January 2-8, 2014 period. In fact, the Report specifically excludes consideration of societal consequences of electrical system outages.³ Such consequences include the reality that electricity is essential for public safety and well-being. For example, electric service on the island of Newfoundland serves as a primary source of home heating during winter months.⁴ This gives potentially

¹ The Report, page 59.

² See Figure 5-4 on Page 70 of the Report.

³ The Report’s Executive Summary indicates that the measures considered in the Report “...do not measure all the societal benefits that result from reliability improvements. They do not, for example, account for such benefits as improved public safety or public health that result from avoided widespread electric service interruptions.” (page xv).

⁴ Approximately 65% of Newfoundland Power customers use electricity as their primary source of heat.

1 lethal human consequences to extended periods of outage on the Island
2 Interconnected System.

3
4 Based upon this, Newfoundland Power does not believe conducting a similar
5 study on willingness to pay to avoid power interruptions would provide
6 particularly useful information in assessing the balance between service reliability
7 and cost in the context of the electrical system serving the island of
8 Newfoundland.

9
10 **C. Provincial Power Policy**

11
12 It is the policy of the Province, as stated in the *Electrical Power Control Act*,
13 1994, that all sources and facilities for the production, transmission and
14 distribution of power in the Province should be managed and operated in a manner
15 that would result in: (i) power being delivered to consumers in the province at the
16 lowest possible cost *consistent with reliable service*; and (ii) consumers in the
17 province having equitable access to an adequate supply of power. The Board has
18 specific responsibility to ensure that adequate supply planning occurs in the
19 province generally, including for the Island Interconnected System.

20
21 The requirement for reliable service to consumers in the province is not
22 conditioned by consumers' willingness to pay. The policy of the province clearly
23 provides that service must be reliable and accessible for all consumers.

24
25 The Province's electricity policy sets out the appropriate considerations with
26 respect to balancing cost and reliability of service. The Board is specifically
27 empowered to ensure planning consistent with these considerations occurs. The
28 Provincial power policy, as set out in regulatory legislation and administered by
29 the Board, provides the appropriate basis for reassessing the balance of reliability
30 and cost that has been recommended by Liberty.