Q. 2013-2014 General Rate Application, Company Evidence

Pg. 2-5, Footnote 4 - Explain how the cost impacts of severe weather are a prominent feature of Newfoundland Power's business risk profile.

A. ***A. Background:***

The economic and social impacts of electrical service failure as a result of severe weather conditions can be extreme. Widespread electricity system failure can disable virtually all economic activity. On the island of Newfoundland electricity is a prominent form of space heating so electricity system failure can present risk to the health of the population. For these reasons, Newfoundland Power's typical practice of deploying round-the-clock restoration efforts following a severe weather event is justified.

Round-the-clock restoration efforts following a severe weather event result in relatively high costs. This is recognized in the utility industry. For example, the Edison Electric Institute has concluded, "Because of the high costs utilities incur in their storm restoration efforts, there is a potential for large financial losses for individual utilities."[1]

Approximately 80% of interruptions in electricity supply to customers result from electricity *distribution* failures. Newfoundland Power is predominantly a distribution utility. In addition, the territory served by Newfoundland Power includes the most severe wind and ice conditions in populated regions of Canada. Wind and ice are particularly hazardous for aerial transmission and distribution systems.

B. The Costs of Restoration:

Storm restoration efforts have both capital and operating cost consequences. Typically, winter ice storms result in relatively high capital costs and low operating costs. Tropical storms and hurricanes which typically occur in the autumn have relatively higher operating costs. These differences largely reflect the impact of vegetation on the electrical system.[2]

Newfoundland Power's evidence in this Application indicates that in 2010 major weather events resulted in unplanned expenditures of approximately $10 million.[3] Of this

[1] See *After the Disaster: Utility Restoration Cost Recovery*, Edison Electric Institute, February 2005, p. 15.

[2] In autumn, vegetation is typically at its peak. This increases the incidence of trees coming in contact with distribution conductors. In addition, autumn storms typically have heavy rain falls which increases the incidence of trees uprooting and coming into contact with distribution conductors. Clearing trees from distribution conductors is typically an operating expenditure. By contrast, in winter, trees have lost most foliage and the ground is frozen. This results in damage from winter storms having a relatively lower incidence of trees coming in contact with distribution conductor and a higher incidence of broken poles due to ice loading. Replacing broken poles is typically a capital expenditure.

[3] This $10 million includes approximately $1.8 million in capital expenditure in 2011 associated with the reinstatement of Company's Port Union and Lawn hydroelectric plants. These plants were covered by insurance subject to a $200,000 deductible. These expenditures were approved by the Board in Order No. P.U. 11 (2011).

amount, approximately $4.2 million related to unplanned capital expenditures required to repair damage to the Company's transmission and distribution systems following a March 2010 ice storm. Approximately $5.5 million in additional unplanned expenditures resulted from Hurricane Igor in September 2010. Approximately $2 million of this $5.5 million was operating expenditure.

Newfoundland Power does not forecast severe weather events for either ratemaking or operational purposes. For example, the 2013 and 2014 operating budgets contained in this Application were prepared principally from historical expenditure (inflated and adjusted with an allowance for productivity) with anomalies such as severe weather conditions removed. Capital expenditures arising from severe weather conditions may be dealt with by the Board after the expenditures are made.[4]

Please refer to the response to Request for Information PUB-NP-030 for more information on the cost of severe weather events since 2010.

C. Assessing Business Risk:

In determining Newfoundland Power's allowed returns on rate base, the Board typically approves a range of reasonableness of ± 18 basis points (± 0.18%). On a *pro-forma* basis, this translates into a range of return on equity of approximately ± 37.5 basis points (± 0.375%). For 2010, this range translated into approximately ± $2.2 million (before tax) or approximately ± $1.5 million (after tax).

The operating cost consequences alone of Hurricane Igor were approximately $2 million. This represents approximately 45% of the full range of reasonable return allowed by the Board for 2010. This is indicative of the hazard presented by severe weather conditions to the Company's ability to earn its allowed return. [5]
As Newfoundland Power indicates at page 3-15 of its evidence, business risk is essentially a *relative* concept. The hazard presented by severe weather conditions to utilities' ability to earn their allowed returns is not dealt with in a uniform manner in all

[4] This is typically achieved by using the *Allowance for Unforeseen* capital expenditures approved annually by the Board to address immediate service restoration issues. If necessary and practical, a capital budget supplement application seeking approval of a specific project required as a result of a severe weather event will be made to the Board. Board approval of these Applications, in effect, provides *authorization* for the capital expenditures. Board approval does not provide for *compensation* for the additional capital expenditures. This is typically dealt with at the Company's next general rate application.

[5] The $2 million is, of course, not the only cost consequence for 2010. The additional capital expenditures required by the storms of March and September 2010 would have an additional negative effect on the Company's ability to earn its return in 2010 and would have continuing impacts until customer rates are reset following the hearing of this Application. The Company's storm response, including capital expenditures resulting from severe weather events, has never been challenged on a prudency basis. Accordingly, the impact of capital expenditures on the Company's ability to earn its return is largely the result of the lag between the capital expenditure and the point at which the return on the capital expenditure is recognized for ratemaking purposes at the Company's next general rate application.

jurisdictions. Some utilities budget annual storm costs.[6] Other utilities have specific regulatory accounts to provide for the deferred recovery of costs resulting from severe weather events.[7]

D. Conclusion:

The service territory of Newfoundland Power includes the most hazardous weather conditions for electrical distribution in populated regions of Canada. Responding to these conditions, which by their nature are unpredictable, can have material impacts on the Company's operating and capital expenditures. These potential impacts present a hazard to Newfoundland Power's ability to earn its allowed return. For these reasons, the Company considers them a prominent feature of its business risk profile.

[6] In Nova Scotia Power Inc.'s 2013 General Rate Application, the utility forecast $10.5 million for 2013 storm operating expense (see *NS Power 2013 General Rate Application*, Company Evidence, May 8, 2012, pp. 92-93 of 159).

[7] This is the case in Alberta where specific regulatory accounts exist to provide for the deferred recovery of uninsured costs over $100,000 that result from severe weather events.