Reference: Section 3: Finance

Q. Volume 1, page 3-39. Provide all capital and operating costs incurred from 2016-2020 that have arisen solely due to severe weather conditions that caused unplanned customer outages and identify those costs that were not recovered and their impact on Newfoundland Power's financial position in the year in which the costs were incurred.

A. **A. Introduction**

Severe weather conditions can have significant economic and social impacts. Widespread electricity system failure can disable virtually all economic activity. Electricity is also the primary source of space heating for the Company's residential customers.[1] For these reasons, Newfoundland Power's practice is to deploy around-the-clock restoration efforts following customer outages resulting from severe weather conditions.

In Canada, approximately 90% of customer outages occur on the distribution system.[2] Newfoundland Power is the primary distributor of electricity in the province of Newfoundland and Labrador. The Company's response to outages is therefore critical to the health and safety of the province's population.

Significant customer outages due to severe weather are becoming more frequent in Newfoundland Power's service territory. Over the last decade, significant events caused outages to Newfoundland Power's customers in 9 of 10 years. This compares to 2 significant events over the prior decade. These events are generally caused by severe weather conditions, such as ice storms, wind storms and tropical storms.[3]

B. The Cost of Restoration

Storm restoration efforts can result in relatively high costs. The relatively high cost of responding to severe weather conditions is recognized in the utility industry.[4]

The cost of restoring service to customers following severe weather conditions can be both capital and operating in nature. As examples, winter ice storms typically result in higher capital costs due to broken poles from ice loading. Tropical storms in autumn typically result in higher operating costs due to vegetation coming into contact with the distribution system.

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1 Approximately 73% of Newfoundland Power's residential customers rely on electricity as their primary heating source. See the *2022/2023 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Section 3: Finance,* page 3-38, footnote 92.

2 Ibid., page 3-38, footnote 94.

3 Ibid., *Section 2: Customer Operations*, page 2-22.

4 The Edison Electric Institute has stated: *"Because of the high costs utilities incur in their storm restoration efforts, there is a potential for large financial losses for individual utilities."* Ibid., *Section 3: Finance*, page 3-39, footnote 99.

Table 1 provides an estimate of annual capital and operating costs incurred by Newfoundland Power over the period 2010 to 2020 in response to severe weather.

Table 1:
Severe Weather Conditions
Estimated Costs
2010 to 2020
($000s)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Capital Costs	7,531	372	635	498	100	0	37	324	359	166	294
Operating Costs	1,940	372	1,625	145	125	0	149	885	572	335	947

From 2016 to 2020, the Company estimates that it incurred annual capital expenditures of up to $359,000 in response to severe weather conditions. Since 2010, annual capital expenditures in response to severe weather have ranged as high as $7.5 million.[5]

Capital expenditures resulting from severe weather conditions are generally recovered through either:

(i) The annual *Reconstruction* capital project, which addresses high-priority deficiencies and in-service failures on the distribution system;[6]
(ii) The annual *Transmission Line and 3rd Party Relocations* capital project, which addresses high-priority deficiencies and in-service failures on the transmission system;[7]
(iii) The *Allowance for Unforeseen Items* capital project, which permits the Company to act expeditiously in responding to events affecting the electrical system without seeking specific approval of the Board;[8] or
(iv) Supplemental capital budget applications when amounts exceed the *Allowance for Unforeseen Items*.[9]

Operating costs resulting from severe weather are highly volatile. From 2016 to 2020, Newfoundland Power incurred annual operating costs ranging from approximately $149,000 to nearly $1 million in response to severe weather. Since 2010, annual operating costs in response to severe weather have ranged as high as nearly $2 million.

[5] Includes capital expenditures in 2010 in response to a severe ice storm and Hurricane Igor.
[6] See the *2022 Capital Budget Application, Schedule B,* page 38 *et seq.*
[7] Ibid., page 21 *et seq.*
[8] Ibid., page 97 *et seq.*
[9] Order No. P.U. 17 (2010) approved a supplementary amount to the *Allowance for Unforeseen Items* following a severe ice storm. Order No. P.U. 35 (2010) approved a supplementary amount to the *Allowance for Unforeseen Items* following Hurricane Igor.

A single severe weather event can have a significant impact on operating costs. As examples, a severe blizzard in January 2020 resulted in outages to approximately 120,000 customers and operating costs of approximately $900,000.[10] The cost of responding to Hurricane Leslie in 2012 was approximately $1.6 million.

Newfoundland Power does not incorporate a specific expectation for severe weather conditions in its forecasts for either ratemaking or operational purposes. Costs related to severe weather conditions are included in the Company's operating cost forecast to the extent that costs, such as overtime labour, are based on historical averages.[11]

Newfoundland Power has generally absorbed operating costs related to restoring service to customers following severe weather conditions. Typically, following a significant restoration effort, the Company will reassess its financial position and its alternatives. It will then take any reasonable steps available to manage its operations in a manner that offers the best opportunity for the Company to earn its return during that year. To the extent that management can take reasonable steps to earn its return, it will.

The alternatives available to management generally depend on the timing and magnitude of an event. For example, when events occur early in the year, management has more time and options available to manage its costs. This can include options involving the deferral of planned work. To the extent that planned work is deferred, it can mitigate, but typically not eliminate, the general tendency of severe weather conditions to reduce the Company's return.

C. Conclusion

Some utilities have regulatory mechanisms to protect against volatility in operating costs arising from severe weather conditions.[12] Newfoundland Power does not have a regulatory mechanism that provides such protection.

In determining Newfoundland Power's allowed return on rate base, the Board typically approves a range of reasonableness of ± 18 basis points (i.e. ± 0.18%). On a *pro forma* basis, this translates into a range of return on equity of approximately ± 40 basis points (i.e. ± 0.40%). For 2023, this range translates into approximately ± $2.3 million.

Annual operating costs required to respond to severe weather conditions have reached almost $2 million since 2010. These costs tend to reduce the Company's return on equity. While management takes all reasonable steps available to maintain its financial position following severe weather conditions, the volatility and magnitude of restoration costs presents an ongoing risk to the Company's opportunity to earn a fair return.

[10] See the *2022/2023 General Rate Application, Volume 1, Section 3: Finance*, page 3-39, footnote 97.
[11] Ibid., *Section 2: Customer Operations*, page 2-38.
[12] See the *2022/2023 General Rate Application, Volume 3, Expert Evidence, Tab 2, Cost of Capital*, page 74, Figure 37.