

1 **Reference: Section 3: Finance**
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3 **Q. Volume 1, page 3-33. It is stated that “Increases in supply costs related to the Muskrat**
4 **Falls Project could be expected to put pressure on Newfoundland Power’s ability to**
5 **earn a fair return” and at page 1-8 it is stated that “The Muskrat Falls Project**
6 **continues to pose a risk to the delivery of reliable service to customers at least cost.” If**
7 **a rate mitigation plan is successfully introduced by the Provincial Government to**
8 **mitigate the impact of the Muskrat Falls Project on customers, how would this**
9 **influence the assessment of Newfoundland Power’s business risk?**

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11 **A. A. Introduction**
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13 ***Background***
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15 Newfoundland Power is dependent upon Newfoundland and Labrador Hydro (“Hydro”) for the bulk generation and transmission of electricity to its customers. Hydro has the exclusive right to sell electricity to Newfoundland Power and industrial customers on the Island Interconnected System.¹ The cost of purchasing electricity from Hydro is Newfoundland Power’s single largest cost.

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21 The cost of Nalcor Energy’s Muskrat Falls Project is substantial compared to the existing electrical system in the province. As of September 2020, the estimated cost of the Muskrat Falls Project is \$13.1 billion.² This is over 3 times the combined book value of the current utility investment of Hydro and Newfoundland Power.³

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26 Without a government rate mitigation plan to address the costs of the Muskrat Falls Project, customer electricity rates would increase to approximately 22.9 ¢/kWh.⁴ This would represent an increase of approximately 70% over current customer rates, which are approximately 13.5 ¢/kWh.⁵

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31 In April 2019, the Provincial Government released its rate mitigation plan entitled
32 *Protecting You from the Cost Impacts of Muskrat Falls*. The Provincial Government’s
33 plan established a target to keep customers rates at approximately 13.5 ¢/kWh.⁶ The plan

¹ Section 14.1 of the *Electrical Power Control Act, 1994* grants Hydro the exclusive right to sell electricity to Newfoundland Power and industrial customers on the island of Newfoundland.

² See Nalcor Energy, *Muskrat Falls Project Cost and Schedule Update*, September 28, 2020, page 10.

³ See the *2022/2023 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Section 3: Finance*, page 3-32, footnote 71.

⁴ See Government of Newfoundland and Labrador, *Protecting You from the Cost Impacts of Muskrat Falls*, April 2019, page 2.

⁵ Current customer rates are based on the current “all-in” residential rate. In addition to the monthly energy charge, an “all-in” residential rate also considers the monthly basic customer charge, expressed in ¢/kWh. $(22.9 - 13.5) / 13.5 = 0.696$, or approximately 70%.

⁶ See response to Request for Information PUB-NP-056.

1 indicated that achieving this target would require collaboration with the Federal
2 Government on Muskrat Falls Project financing.⁷

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4 In February 2020, the Provincial Government entered into negotiations with the Federal
5 Government to undertake a financial restructuring of the project.⁸ In July 2021, an
6 agreement in principle was announced for the financial restructuring of the project.⁹ At
7 that time, the Provincial Government’s rate mitigation target was updated to 14.7 ¢/kWh,
8 or approximately 9% higher than previously indicated target of 13.5 ¢/kWh.

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10 Newfoundland Power’s 2022/2023 *General Rate Application* included an assessment of
11 the Company’s business risk. The likelihood of rate mitigation associated with the
12 Muskrat Falls Project was part of that assessment.

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14 ***Current Context***

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16 Material uncertainty remains with respect to the recovery of Muskrat Falls Project costs
17 over both the near term and the longer term.

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19 While commissioning of the Muskrat Falls Project is expected over the near term, future
20 power supply costs, wholesale rate structures and cost of service allocations resulting
21 from the Muskrat Falls Project are subject to a final order on Hydro’s next general rate
22 application.¹⁰ Hydro anticipates that its next general rate application will not likely
23 conclude before 2023.¹¹ As such, there remains uncertainty in how Muskrat Falls Project
24 costs will be recovered from customers over the near term.

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26 Over the longer term, there remains uncertainty regarding whether additional investments
27 associated with the Muskrat Falls Project will be required.

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29 To Newfoundland Power’s knowledge, the updated rate mitigation target of 14.7 ¢/kWh
30 reflects the estimated cost of the Muskrat Falls Project as at July 2021. The updated rate
31 mitigation target does not reflect the potential requirement for additional investments in
32 the reliability of the Labrador-Island Link (“LIL”) or additional generation on the Island

⁷ See Government of Newfoundland and Labrador, *Protecting You from the Cost Impacts of Muskrat Falls*, April 2019, pages 5 and 14.

⁸ See Government of Newfoundland and Labrador news release *Provincial and Federal Governments Collaborate to Protect Residents from Negative Impacts of Muskrat Falls*, February 10, 2020.

⁹ See Government of Newfoundland and Labrador news release *Securing a Strong Future for Newfoundland and Labrador*, July 28, 2021.

¹⁰ Hydro is required to file a general rate application once Muskrat Falls Project costs and rate mitigation are known to establish a new Utility rate. In Order No. P.U. 15 (2020), the Board approved Hydro’s request to delay the filing of its application as Hydro lacked critical information needed to develop proposed customer rates. In Hydro’s June 30, 2021 update, Hydro indicated that it is still awaiting information on the financial restructuring of the Muskrat Falls Purchase Power Agreement and the completion of government’s rate mitigation plan and therefore did not have adequate information to file a fully informed application.

¹¹ See Hydro’s *Supply Cost Accounting Application*, July 29, 2021, paragraph 34.

1 of Newfoundland. These matters are currently under review by the Board as part of
2 Hydro's *Reliability and Resource Adequacy Study*.

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4 The LIL is a 1,100 kilometre HVDC transmission line designed to supply customers on
5 the Island Interconnected System with energy from the Muskrat Falls Project. The
6 reliability of the LIL is among the issues under review. For example, the LIL
7 experienced damage in January 2021 due to ice accumulation and additional equipment
8 failures in February 2021.¹² Substantial time was required to return the LIL to normal
9 operation following these events.¹³

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11 At the time of sanctioning the Muskrat Falls Project in 2012, it was anticipated that
12 commissioning of the project would enable the retirement of Hydro's Holyrood Thermal
13 Generating Station ("Holyrood").¹⁴ The potential retirement of Holyrood is also under
14 review.

15
16 It is currently unclear whether additional investments will be required to improve the
17 reliability of the LIL or to increase electricity supply on the Island of Newfoundland.
18 Such investments could be expected to contribute to higher customer rates. For example,
19 Hydro assessed that 4 simple cycle combustion turbines on the Island of Newfoundland
20 would equate to an additional 234 MW of capacity at a cost of approximately
21 \$664 million.¹⁵

22 23 **B. Assessment of Business Risk**

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25 For Newfoundland Power, there are 3 principal business risks associated with the
26 Muskrat Falls Project.

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28 First, increases in supply costs related to the Muskrat Falls Project could be expected to
29 lead to declines in energy sales.

¹² See pages 1 and 2 of Hydro's correspondence to the Board regarding *Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – February 2021 Further Update*, dated February 15, 2021.

¹³ With respect to the January 2021 damage, Hydro indicated that critical repairs were completed from January 12, 2021 through to February 24, 2021 (see page 6 of Hydro's correspondence to the Board regarding the *Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – March 2021 – Board Questions – Hydro's Response*, dated March 30, 2021). With respect to the February 2021 equipment failures, Hydro indicated that commissioning work was paused on February 7, 2021 and recommenced on February 24, 2021 (see page 2 of Hydro's correspondence to the Board regarding *Reliability and Resource Adequacy Study Review – Labrador-Island Link Monthly Update – March 2021*, dated March 4, 2021).

¹⁴ Holyrood is a 490 MW thermal generating station located approximately 40 kilometres from Newfoundland Power's load centre on the Northeast Avalon. Prior to development of the Muskrat Falls Project, Holyrood was the second largest source of supply for Newfoundland Power's customers.

¹⁵ See Hydro's *Reliability and Resource Adequacy Study – 2019 Update, Volume III: Long-Term Resource Plan*, page 17, Table 3.

1 As a general proposition, as electricity rates increase, energy usage will decrease.¹⁶ If
2 customer rates increased to 14.7 ¢/kWh on July 1, 2022, as an example, it would be
3 expected to decrease 2023 energy sales by 60 to 70 GWh.¹⁷
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5 Future investments to address the reliability of the LIL or the potential requirement for
6 additional generation on the Island of Newfoundland could contribute to additional
7 customer rate increases. This, in turn, would lead to further declines in energy sales.
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9 Declining energy sales make Newfoundland Power less appealing to financial markets as
10 compared to utilities with higher growth potential. Declining energy sales also put
11 pressure on Newfoundland Power's ability to manage changes in its costs between
12 general rate applications.
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14 Second, increases in supply costs related to the Muskrat Falls Project could be expected
15 to further reduce Newfoundland Power's financial flexibility.
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17 In 2000, purchased power costs accounted for approximately 57% of Newfoundland
18 Power's revenue on a ¢/kWh basis. In 2020, purchased power costs accounted for
19 approximately 66% of the Company's revenue on a ¢/kWh basis. Purchased power costs
20 are largely beyond the control of Newfoundland Power management. The increase in
21 purchased power costs as a proportion of revenue reduces the Company's flexibility to
22 respond to changes in the business, including lower sales and higher expenses.¹⁸
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24 Future increases in purchased power costs due to the Muskrat Falls Project would further
25 reduce Newfoundland Power's flexibility to manage its costs. This includes costs related
26 to severe weather events, which can be significant.¹⁹
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28 Third, an outage to the LIL during the winter season could result in a supply shortfall of
29 up to approximately 400 MW on the Island Interconnected System.²⁰ This could result in
30 large-scale customer outages over a prolonged period of time, impeding Newfoundland
31 Power's ability to provide adequate service and posing serious health and safety risks to
32 the Company's customers.²¹

¹⁶ Current analysis indicates that a 1% increase in the price of electricity will result in a 0.23% decrease in energy sales. See the *2022/2023 General Rate Application, Volume 2, Supporting Materials, Tab 3, Customer, Energy and Demand Forecast*, page 5, Section 3.2.

¹⁷ See response to Request for Information PUB-NP-056.

¹⁸ See the *2022/2023 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Section 3: Finance, Cost Flexibility*, page 3-34 *et seq.*

¹⁹ See response to Request for Information PUB-NP-039.

²⁰ See response to Request for Information NP-NLH-036 filed in relation to Hydro's *Reliability and Resource Adequacy Study Review*.

²¹ In correspondence to Hydro dated March 25, 2021, the Board raised concerns regarding the findings of a report by Asim Haldar, PhD, P.Eng, titled *Assessment of Labrador Island Transmission Link (LIL) Reliability in Consideration of Climatological Loads* (the "Haldar Report"). The Board stated: "*The Haldar Report raises troubling concerns regarding the as-built design of the LIL with potential significant negative implications for the LIL's reliability.*"

1 Under this scenario, Newfoundland Power could be expected to incur additional costs to
2 continue serving its customers with available electricity supply. For example, during
3 widespread customer outages known as #darkNL, the Company's operations and
4 customer service personnel were mobilized around the clock to complete load rotations,
5 repair system issues that arose due to cold load pick-up, and respond to customer
6 enquiries. Costs associated with this event were approximately \$1 million.

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8 The potential consequences of a supply shortfall from the Muskrat Falls Project could
9 exceed that of #darkNL. For example, #darkNL involved a supply shortfall of
10 approximately 100 MW, whereas an outage to the LIL could result in a supply shortfall
11 of up to 4 times that amount. Additionally, #darkNL occurred over approximately
12 1 week. An outage to the LIL, such as that which occurred in 2021, could be even longer
13 due to requirements for snow clearing and other operational constraints.

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15 Similar to the Company's response to storm events, costs incurred to respond to a loss of
16 supply can reduce Newfoundland Power's return on equity.²²

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18 **C. Conclusion**

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20 The Provincial Government has updated its rate mitigation target. While the updated
21 target provides an indication of increases in customer rates over the near term, material
22 uncertainty remains. This uncertainty continues to be a significant business risk for
23 Newfoundland Power. This risk could be expected to put pressure on Newfoundland
24 Power's ability to earn a fair return.

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26 For additional information on Newfoundland Power's business risks, see response to
27 Request for Information PUB-NP-035.

²² See response to Request for Information PUB-NP-039.