Volume 2: Tab 3, Customer, Energy and Demand Forecast Report

Q. Volume 2, Tab 3, page 3 of 8. Newfoundland Power states that its forecast of native peak demand is determined by applying the average weather-adjusted load factor to the forecast of produced and purchased energy and its purchased demand is then derived by subtracting load curtailment by Newfoundland Power customers and company-owned facilities, and the generation credit approved by the Board.

a) In Appendix C, please confirm that the peak load reduction of 11.7 MW between existing and proposed peak MW of purchases in 2006 reflects the estimated impact of price elasticity on sales being converted to peak demand reflecting the load factor forecasting approach. Please provide any analysis that Newfoundland Power has conducted to validate the assumed impact of price elasticity on peak demand.

b) Please provide a comparison of forecast purchased peak demand to actual purchased peak demand for each winter period beginning with the 2012 to 2013 winter season. Where appropriate, please use the test year forecasts in the comparison.

c) Appendix C, Proposed, Newfoundland Power is forecasting peak load purchases to decline by 11.4 MW from 2024 to 2025 and 9.7 MW from 2025 to 2026. Is this peak load decline consistent with the forecast of Newfoundland and Labrador Hydro? Please update the table filed in the response to CA-NP-013 in the 2022-2023 General Rate Application to provide the system peak forecast of Newfoundland Power and of Newfoundland and Labrador Hydro for the Newfoundland Power peak for each year 2022 to 2026 inclusive.

d) Does Newfoundland Power consider its peak load forecast reasonable for Newfoundland and Labrador Hydro to use in system planning? If not, please explain why it is appropriate for the Board to use a different peak load forecast for Newfoundland Power in setting rates for Newfoundland Power that the forecast it would use in setting rates for Newfoundland and Labrador Hydro.

e) Further to c) above, what would be the purchase power impact for each of the 2025 and 2026 test years if Newfoundland Power's peak load forecast reflected the same MW load growth as the utility peak load forecast prepared by Newfoundland and Labrador Hydro for 2025 and 2026.

f) Please confirm that if Newfoundland Power's billing demand expense between test years exceeds its test year forecast demand costs that the expense amount in excess of $500,000 (under Newfoundland Power's proposed account definition) will be charged to the Demand Management Incentive Account and recovered through the Rate Stabilization Account.

A. a) This is confirmed. The 11.7 MW difference between the 2026 existing and proposed peak demand is due to the price elasticity effects associated with Newfoundland Power's proposed rate increase of 5.5% effective July 1, 2025.

Newfoundland Power's five-year average system load factor methodology calculates forecast peak demand based on the forecast of energy sales which considers price elasticity.

For further information on the Company's five-year average system load factor methodology, including its consistency with public utility practice, see the response to Request for Information PUB-NP-090. Beyond confirming its approach to forecasting peak is consistent with public utility practice, Newfoundland Power has not completed an analysis specific to elasticity effects on peak demand.

See the response to Request for Information PUB-NP-103 for a fulsome discussion the impact increases in the price of electricity has on customer electricity usage.

b) Table 1 provides a comparison of purchased peak demand and test year forecast purchased peak demand.

Table 1:
Purchased Peak Demand MW[1]

Winter Season	Actual	Forecast	Variance %
2012-2013	1,233	1,213[2]	1.6%
2013-2014	1,225	1,237[3]	-1.0%
2014-2015	1,264	1,262[4]	0.2%
2015-2016	1,253	1,275[5]	-1.7%
2016-2017	1,317	1,279[6]	3.0%
2017-2018	1,255	1,279[7]	-1.9%
2018-2019	1,309	1,262[8]	3.7%
2019-2020	1,251	1,258[9]	-0.6%
2020-2021	1,251	1,251[10]	0.0%
2021-2022	1,253	1,251[11]	0.2%
2022-2023	1,345[12]	1,251[13]	7.5%

[1] Weather-adjusted.
[2] 2013 test year.
[3] 2014 test year.
[4] 2015 forecast used in the *2015 Rate of Return on Rate Base Application*.
[5] 2016 test year.
[6] 2017 test year.
[7] 2018 forecast used in the *2018 Rate of Return on Rate Base Application*.
[8] 2019 test year.
[9] 2020 test year.
[10] 2021 forecast used in the *2021 Rate of Return on Rate Base Application*.
[11] 2022 test year.
[12] Newfoundland Power's actual weather-adjusted system peak for the 2022-2023 winter season occurred at approximately 5:45 p.m. on February 4, 2023. It was the largest peak ever recorded by the Company at that time.
[13] 2023 test year.

c) Table 2 provides the updated system peak forecast data.

Table 2:
System Peak Forecast MW

Winter Season	Newfoundland Power	Hydro[14]	Difference
2022-2023	1,368	1,407	(39)
2023-2024	1,448	1,437	11
2024-2025	1,476	1,466	10
2025-2026[15]	1,465	1,477	(12)
2026-2027[16]	1,455	1,494	(39)

Newfoundland and Labrador Hydro's ("Hydro") forecast is 12 MW and 39 MW higher than Newfoundland Power's forecast for the 2025-2026 and 2026-2027 winter seasons, respectively. The Company observes that system peak trends vary each year (i.e. increase and decreases) rather than increase steadily year-over-year.[17]

d) Forecasts of Newfoundland Power's energy and demand requirements are required for multiple purposes. Both Newfoundland Power and Hydro are responsible for developing forecasts that are appropriate for their intended purposes.

Newfoundland Power forecasts its energy and peak demand requirements to address the estimation of future revenue from electricity sales and the Company's single largest expenditure, purchased power.[18] Newfoundland Power submits that it is therefore an appropriate forecast to use for the purposes of determining the Company's revenue requirements and customer rates.

Hydro is responsible for supply reliability and resource adequacy on the Island Interconnected system. As a result, Hydro requires a forecast of Newfoundland Power's energy and peak demand requirements for system reliability and generation adequacy purposes.[19] Forecasts that are too high or too low may have implications for system reliability. For this reason, Hydro has indicated it is taking a conservative approach in forecasting Newfoundland Power's peak demand.[20]

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14 See the response to Request for Information PUB-NLH-009.
15 Based on Newfoundland Power's *Proposed* Forecast.
16 Ibid.
17 See, for example, Table 1 which shows that Purchased Peak Demand decreased and increased in consecutive years from the 2012-2013 winter season to the 2019-2020 winter season.
18 These forecasts also inform the Company's Substation Load and Feeder Peak Load forecasts.
19 Hydro also requires a forecast of Newfoundland Power's energy and peak demand requirements to determine cost allocation among customers on the Island Interconnected System.
20 See Hydro's presentation *Reliability and Resource Adequacy Study Review – Technical Conference #2*, November 30, 2020, page 30, filed in advance of Hydro's 2nd Technical Conference in relation to Hydro's *Reliability and Resource Adequacy Study Review*.

e) The impact of 12 MW and 39 MW for the 2025 and 2026 test years would be an increase in purchased power costs of $0.7 million and $2.3 million, respectively.[21]

f) In isolation, an increase in billing demand would result in a transfer to the DMI Account for amounts greater than $500,000.[22]

[21] $720,000 is 12 MW x 1,000 kW/MW x $5/kW x 12 months. $2,340,000 is 39 MW x 1,000 kW/MW x $5/kW x 12 months.

[22] The transfer to the DMI Account is based on a comparison of actual unit demand costs to test year unit demand costs. Unit demand costs consider both billing demand and weather normalized energy purchases. If actual billing demand increased from test year while weather normalized energy purchases remained constant, actual unit demand costs would be higher than test year, resulting in a transfer to the DMI Account (in excess of the ±$500,000 threshold proposed in this Application).