Q. (Reference [2027-2031] Capital Plan, Appendix B, 2027 CBA AMI Update)

It is stated (page 4) "*the annual costs associated with operating AMI technology of $2.0 million in 2025 dollars is estimated to be more than 40% higher than the annual costs to operate AMR technology of an estimated $1.4 million in 2025***."**

a) Please provide a table identifying the number of customers, or meters, that NP currently has in place for the following technologies: AMR technology, AMI technology (i.e., load research), mechanical metering technology, and unmetered customers?

b) Please review the rate design and metering technology in Ontario.

i. What consideration has NP given to the adoption rates of time-varying rates (TVR) in Ontario?

ii. Please compare the system load factors of the Ontario and IIS systems and how AMI could be applied to each.

c) How much capital is NP proposing in the 2027 CBA on projects and programs that improve customer service? Please provide the economic analysis that quantifies the cost savings associated with these programs and demonstrates that they are least cost.

d) How much capital is NP proposing in the 2027 CBA on projects and programs that improve field operations? Please provide the economic analysis that quantifies the cost savings associated with these programs and demonstrates that they are least cost.

e) Has any comprehensive study been undertaken quantifying the benefits of AMI technology relative to AMR technology in Newfoundland and Labrador?

f) Please identify any issues that NP encountered in the installation of AMI meters for the load research study.

g) Does NP have the expertise in-house to undertake a comprehensive review of AMI technology?

h) Does NP have the expertise in-house to implement, maintain and operate AMI technology?

A. a) Table 1 provides the requested information.

Table 1
Meter Type by Customer Count

Meter Type	Customer Count
Unmetered Service	2,120
Digital/Mechanical	40
Load Research/MV90 Meters	96
AMR	267,599

b) Newfoundland Power does not base its rate design and metering technology on one province, such as Ontario. See Newfoundland Power's *Rate Design Review: Phase 1* report for a review of the Company's rate design, which includes a review of rate offerings in other Canadian jurisdictions.[1] Further, see section 2.0 of the 2027 CBA AMI Update for a jurisdictional scan of metering practices across Canada. With respect to Ontario, Newfoundland Power notes that utilities in Ontario were directed to implement AMI technology and TVR structures as a result of a Government Order in Council.[2] In addition, Ontario is the only jurisdiction that has TVR structures as its default rate offering.[3]

Newfoundland Power has not completed an analysis specific to Ontario system load factors and its relevance to an AMI implementation in the Company's service territory. Therefore, the requested comparison cannot be provided. Newfoundland Power does observe there are notable differences between the two provinces, such as Newfoundland and Labrador being a winter peaking province and Ontario being a summer peaking province.[4]

See the response to part d) of Request for Information CA-NP-022 for information regarding TVR structures on the IIS.

c) Newfoundland Power's *2027 Capital Budget Application* includes the following projects that improve customer service:

i) The *Customer Correspondence Modernization project*.[5] This multi-year project will improve the productivity of Newfoundland Power's operations related to bill production and delivery through the reduction or elimination of the manual processes to reduce costs for customers.[6] Upon completion, this project is forecast to provide average annual net operating savings of approximately $0.5 million.[7]

ii) The *Application Enhancements* project.[8] This project involves upgrading software applications with the goal of improving operating efficiency, improving productivity, and enhancing service delivery. See the response to Request for Information CA-NP-049 for information regarding operating efficiencies associated with the *Application Enhancements* project.

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1 This report was provided to the parties via email on April 2, 2024.
2 See Ontario Order in Council 1411/2004, dated June 23, 2004, issued under the *Ontario Energy Board Act, 1998*. The Company further notes that, in a report issued approximately four years after implementation, the Office of the Auditor General of Ontario found that a number of the anticipated benefits of AMI had not been achieved, and that implementation costs had exceeded original projections. See *2014 Annual Report of the Office of the Auditor General of Ontario, Section 3.11: Smart Metering Initiative*.
3 See also Table 4-2 in the *Rate Design Review: Phase 1* report.
4 See Independent Electricity System Operator (n.d.). Peak Tracker. Retrieved July 17, 2026 from https://ieso.ca/peaktracker.
5 Approved in Order No. P.U. 38 (2025). See the *2026 Capital Budget Application*, Schedule B, pages 87 to 89.
6 See the *2027 Capital Budget Application*, *2027 Capital Budget Overview*, Appendix E, page 13.
7 See the *2026 Capital Budget Application*, report *4.1 Customer Correspondence Modernization*.
8 See the *2027 Capital Budget Application*, Schedule B, pages 139 to 143.

d) Newfoundland Power's *2027 Capital Budget Application* includes the following projects and programs that improve field operations:[9]

i) The *Distribution Feeder Automation* project. This project will increase automation of the Company's distribution system through the installation of additional downline reclosers. The deployment of automated distribution equipment will enhance the Company's response to customer outages. It allows for efficient field response, reduced patrol times, and the ability to operate devices remotely.[10]

ii) The *Geographic Information System Upgrade* project.[11] This multi-year project will enhance the functionality of the Company's current Geographic Information System ("GIS") technology and allow for more modern components. This technology is integral to Newfoundland Power's field operations. Since 2013, GIS technology has reduced or eliminated manual processes to reduce costs for customers.[12]

iii) Approximately 57% of proposed capital expenditure is driven by the refurbishment or replacement of existing assets.[13] These expenditures are required to maintain the condition of the electrical system and to provide reliable service to customers. Failure to maintain the Company's electrical system would result in increased equipment failures and customer outages and would, therefore, result in higher overall costs to customers.[14]

e) Newfoundland Power has completed a preliminary cost-benefit analysis associated with the implementation of AMI technology which indicates a negative NPV of approximately $37 million.[15] While the Company continues to build on its preliminary AMI assessment, it does not expect the preliminary business case for an AMI implementation across Newfoundland Power's service territory to change substantively in the near term, absent government funding. The Company will continue to explore funding opportunities, which could enable a transition to AMI in a shorter timeframe.

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9 While these projects and programs improve field operations, they are not justified based on economic analyses. As such, economic analyses are not available to provide.
10 See the *2027 Capital Budget Application*, Schedule C, page 1.
11 Approved in Order No. P.U. 38 (2025). See the *2026 Capital Budget Application*, Schedule B, pages 90 to 92.
12 See the *2026 Capital Budget Application*, report *4.2 Geographic Information System Upgrade.*
13 See the *2027 Capital Budget Application*, *2027 Capital Budget Overview*, page 1.
14 See, for example, Order No P.U. 3 (2025), page 67, lines 30-38.
15 See the *2027 Capital Budget Application*, *2027-2031 Capital Plan,* Appendix B, page 7.

For this reason, a comprehensive study regarding AMI technology has not been completed at this time.[16] Consistent with good utility practice, in the event a fulsome business case were developed, Newfoundland Power would leverage its internal expertise while engaging independent external advisors, where appropriate, to complete the business case assessment.[17]

f) Newfoundland Power did not install AMI meters as part of the load research study. As provided in the *Load Research and Rate Design Framework* as well as the *Load Research Study Plan*, the Company has utilized meters that are capable of recording 40 days of customer interval load data and that are compatible with Newfoundland Power's existing meter reading infrastructure and meter reading processes.[18] Data for the load research study is being collected during the Company's existing meter reading schedules.

g) See part e).

h) Yes, Newfoundland Power has the internal expertise required to implement, maintain, and operate AMI technology. In the event of an AMI deployment, the Company would leverage both internal resources and external vendors, as appropriate, to support the successful deployment and ongoing operation of AMI technology.

[16] As provided in footnote 6 to the 2027 CBA AMI Update, fulsome business cases for larger projects are lengthy and costly processes that typically occur near the end of life of the current assets. For example, with respect to the Company's transition to its modern Customer Information System ("CIS"), the assessment of CIS cost $1.2 million and occurred primarily from 2019 to 2020, and that cost was included in the Company's 2019 and 2020 revenue requirements approved by the Board in Order No. P.U. 2 (2019). Following the assessment, the process for Board approval occurred from 2020 to 2021. Newfoundland Power estimates the cost of a fulsome business case for AMI to be approximately $2.5 million and would take roughly 16 months to complete.

[17] In accordance with the Provisional Guidelines, a transition to AMI would require a fulsome business case, including detailed engineering assessments and assessment of alternatives, to support approval of an AMI capital project by the Board.

[18] See page 4 of the *Load Research and Rate Design Framework* filed with the Board on December 30, 2022, and page 18 of the *Load Research Study Plan* provided to the parties via email on June 16, 2023.