## Q. Reference: Reliability and Resource Adequacy Study 2022 Update, Volume III, Section 7.1.1, pages 43-48.

Various measures "to promote a reduction in customer demand and/or energy requirements"
are discussed and uncertainties are expressed about the effectiveness of these measures.
Outline Hydro's plans - including means, methods, and timing—for assessing the impacts of
these uncertainties on resource adequacy in this proceeding.

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A. As noted in the "Reliability and Resource Adequacy Study – 2022 Update,"<sup>1</sup> Newfoundland and
 Labrador Hydro ("Hydro") believes there is potential for system benefits through Demand
 Management programming as well as efficient and advanced rate design. A combination of
 detailed reviews, regulatory processes, and pilot studies will be required to fully understand the
 potential system benefits in Newfoundland and Labrador.

## 14 Demand Response

15 In 2023, Hydro, in partnership with Newfoundland Power Inc. ("Newfoundland Power"), intends 16 to undertake new pilot programs (subject to approval from the Board of Commissioners of Public Utilities ("Board"), where required)<sup>2</sup> which would seek to understand the demand 17 18 response potential of such programs in Newfoundland and Labrador. Examples of these 19 programs include Electric Vehicle Charging Demand Response and Space Heating Demand 20 Response. While results from other jurisdictions indicate that such programs have potential, the 21 intent of these pilot programs would be to understand the customer interest and system 22 benefits, which can be expected in the local market. The results of these pilot programs, 23 including cost effectiveness, would inform whether these programs would continue beyond the

 <sup>&</sup>lt;sup>1</sup> "Reliability and Resource Adequacy Study - 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022.
 <sup>2</sup> Typically, Hydro will communicate with the Board regarding new pilot programs; however, further to *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 33(2022), Board of Commissioners of Public Utilities, November 10, 2022, Hydro would seek approval for pilot programs pertaining to electric vehicles.

pilot stage. Hydro expects the result of these potential programs would not be known until at
 least 2024.

## 3 Rate Design

4 Dynamic rates for domestic and general service customers have been shown to provide system 5 benefits in other jurisdictions (i.e., Quebec) and will need to be considered with the additional 6 costs associated with advanced metering infrastructure. A detailed study on the use and cost-7 effectiveness of dynamic rates will likely be required in this jurisdiction.

- 8 Further, any changes to retail rates will need to be considered in the context of Newfoundland
- 9 Power's Retail Rate Design Review. As part of the settlement agreement<sup>3</sup> filed in relation to its
- 10 "2022/2023 General Rate Application,"<sup>4</sup> Newfoundland Power filed its "Load Research and Rate
- 11 Design Framework."<sup>5</sup> As part of the Retail Rate Design Review, potential alternative rate designs,
- 12 in consideration of the integration of the Muskrat Falls Project and interconnection to the North
- 13 American grid, will be reviewed. Other evaluations will include alternative rate designs on
- 14 customers, including the cost of implementation, billing impacts, and customer acceptance.
- 15 In September 2022, Hydro applied for approval of a new non-firm rate for customers.<sup>6</sup> If
- 16 approved, this updated non-firm rate will provide market-priced energy to customers who do
- 17 not require firm service, thereby lowering or avoiding growth in system peak requirements.

<sup>&</sup>lt;sup>3</sup> "Settlement Agreement for the Proposed Resolution of Issues Arising from the Application," Newfoundland Power Inc., November 18, 2021.

<sup>&</sup>lt;sup>4</sup> "2022/2023 General Rate Application," Newfoundland Power Inc., rev. December 7, 2021 (originally filed May 27, 2021).

<sup>&</sup>lt;sup>5</sup> "Load Research and Rate Design Framework," Newfoundland Power Inc., December 30. 2022.

<sup>&</sup>lt;sup>6</sup> "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022.