

1 Q. In the resource adequacy study:

2 a) Is Hydro considering transmission separately from generation?

3 b) Did Hydro follow an approach that considers: i) enhancements to the existing system  
4 such as maintenance/refurbishment, smart grid and behind-the-meter applications  
5 (time-varying rates, demand control, conservation, customer-owned generation,  
6 customer-owned battery storage such as electric vehicles, etc.), ii) new generation, and  
7 iii) new/enhanced transmission?

8 c) Can transmission be an alternative to generation? For example, instead of building new  
9 CTs on the Island, could a new transmission line be built from Muskrat Falls generation  
10 to the Island?

11 d) In the absence of smart meters, can behind-the-meter applications thrive and make a  
12 meaningful contribution to the province's energy supply?

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15 A. a) Newfoundland and Labrador Hydro ("Hydro") assesses transmission requirements  
16 separately from generation requirements and jointly with generation requirements. Hydro  
17 files Transmission Planning Assessment reports annually with the Board of Commissioners of  
18 Public Utilities,<sup>1</sup> which are also posted on the OASIS<sup>2</sup> website. However, the model used by  
19 Transmission Planning (the PSSE Models) and the model used by Resource Planning for  
20 resource adequacy (the Plexos Model) require alignment for all common assumptions, load  
21 forecast, and future expansion requirements. To ensure this occurs, both departments  
22 coordinate closely to ensure any outcomes that impact both transmission and generation  
23 are accounted for accordingly. Any impacts, such as the identification of the On-Avalon

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<sup>1</sup> The most recent filing is the "NLSO Report - 2024 Annual Planning Assessment," Newfoundland and Labrador Hydro, June 17, 2024, [https://www.oasis.oati.com/woa/docs/NLSO/NLSOdocs/TP-R-077\\_FINAL\\_07292024.pdf](https://www.oasis.oati.com/woa/docs/NLSO/NLSOdocs/TP-R-077_FINAL_07292024.pdf).

<sup>2</sup> Open Access Same-Time Information System ("OASIS").

1 transmission constraint,<sup>3</sup> are reported in the subsequent Reliability and Resource Adequacy  
2 studies. As such, the process between the two departments is an iterative one.

3 **b)** Hydro is constantly performing maintenance and refurbishments, as required, to its existing  
4 assets, including but not limited to those that are capital in nature as identified in the annual  
5 capital budget applications. In addition, Hydro studied the possibility of uprating  
6 Bay d’Espoir Unit 7 as part of identifying opportunities to uprate units in Hydro’s existing  
7 fleet on the Island Interconnected System.<sup>4</sup>

8 Hydro and Newfoundland Power Inc. (“Newfoundland Power”) jointly deliver Electrification,  
9 Conservation and Demand Management (“ECDM”) programming on the Island  
10 Interconnected System under the takeCHARGE partnership. Every five years Hydro and  
11 Newfoundland Power jointly commission a study to evaluate the potential for ECDM in the  
12 province, with the most recent study completed by Dunsky Energy Consulting in 2019.<sup>5</sup> In  
13 2023, Hydro and Newfoundland Power contracted Posterity Group to undertake a new  
14 Conservation and Demand Management Potential Study to assess the technical, economic,  
15 and achievable potential for ECDM activities from 2025 to 2040. The study will be used to  
16 develop the next multi-year ECDM plan.

17 New generation, including the potential for upgrades to existing hydro facilities, additional  
18 units at existing facilities, and new facilities at greenfield sites are also assessed.<sup>6</sup> Lastly, as  
19 part of the iterative process between the transmission planning and resource planning  
20 models, new transmission is sometimes identified as being required. As mentioned in the  
21 2024 Resource Adequacy Plan, a third line from Western Avalon to Soldiers Pond and  
22 Dynamic Line Rating (“DLR”) for TL201, TL206, and TL203 is recommended as the lowest-

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<sup>3</sup> “2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study,” Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), app. C, sec. 7.3.

<sup>4</sup> “2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study,” Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), app. C, sec. 4.3.7.1.

<sup>5</sup> “Conservation Potential Study,” Dunsky Energy Consulting, filed as “Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025,” Newfoundland and Labrador Hydro, rev. July 8, 2021 (originally filed June 16, 2021), sch. 3, sch. C.  
[http://www.pub.nl.ca/applications/2021/NLH2021Capital/NLH2021Capital\\_SUPP\\_ExecuteProgram/apps/From%20NLH%20-%20Approvals%20Required%20to%20Execute%20Programming%20Identified%20in%20the%20Electrification%20Conservation%20and%20Demand%20Management%20Plan%202021-2025%20-%20REVISION%201%20-%202021-07-08.PDF](http://www.pub.nl.ca/applications/2021/NLH2021Capital/NLH2021Capital_SUPP_ExecuteProgram/apps/From%20NLH%20-%20Approvals%20Required%20to%20Execute%20Programming%20Identified%20in%20the%20Electrification%20Conservation%20and%20Demand%20Management%20Plan%202021-2025%20-%20REVISION%201%20-%202021-07-08.PDF)

<sup>6</sup> The complete list of expansion resource options under consideration can be found in “2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study,” Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), app. C, sec. 4.0.

1 cost option to meet Island demand in combination with the expansion plans assessed in the  
2 study. However, as outlined in Hydro’s response to PUB-NLH-334 of this proceeding, Hydro  
3 is exploring whether lower-cost steps can be taken to maximize transfer capacity through  
4 existing assets, including the implementation of a Remedial Action Scheme and/or DLR  
5 technology as technically equivalent options to the transmission upgrades.

6 c) A high-voltage direct current transmission interconnection between Muskrat Falls and the  
7 Island System would not be feasible as per part (i) of Hydro’s response to CA-NLH-061 of this  
8 proceeding. An alternating current (“ac”) interconnection would not be technically viable  
9 due to issues relating to the synchronism of generators as well as voltage issues with ac  
10 submarine cables.

11 d) Both Hydro and Newfoundland Power have offered net metering to customers since 2017.<sup>7</sup>  
12 This program has and continues to exist without a full deployment of Automated Metering  
13 Infrastructure (“AMI”). At the end of 2023, the total approved customer-generating capacity  
14 from both utilities under this service option was less than 1 MW.<sup>8</sup>

15 Newfoundland Power is currently undertaking an electric vehicle (“EV”) demand response  
16 pilot program utilizing smart EV chargers and vehicle telematics.<sup>9</sup> This program is also  
17 operating without province-wide AMI.

18 Hydro has an obligation under section 3(b) of the *Electrical Power Control Act, 1994* to  
19 provide customers with power at the lowest possible cost, in an environmentally  
20 responsible manner, consistent with reliable service. The evidence to date shows that AMI  
21 in this jurisdiction is not yet cost effective. In the absence of cost-effective AMI, Hydro will  
22 continue to work with Newfoundland Power on other means to enable behind-the-meter  
23 applications for customers.

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<sup>7</sup> Order No. P.U. 17(2017).

<sup>8</sup> 841.9 kW.

<sup>9</sup> Order No. P.U. 23(2023).