

1 Q. **Reference: Labrador Interconnected System Network Additions Policy, Summary Report,**
2 **Page 1, Lines 1-8.**

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4 Is the proposed Network Additions Policy influenced by the specific circumstances of the
5 Labrador Interconnected System? If so, please describe those circumstances and how they
6 influenced the terms of the policy, including their influence on the 200 kW and 1500 kW
7 thresholds.

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10 A. The proposed “Network Additions Policy - Labrador Interconnected System” is influenced
11 materially by the specific circumstances of the Labrador Interconnected System.

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13 The Labrador Interconnected System customer rates are among the lowest in North
14 America, reflecting an extremely low contracted energy supply cost purchased from
15 Churchill Falls (Labrador) Corporation and a low cost of transmission to be recovered from
16 customers (i.e., reflecting that most of the existing transmission assets were not funded
17 through customer rates). The average retail rate on the Labrador Interconnected System is
18 approximately 2.5 cents per kWh.

19

20 Labrador East is on the end of a radial transmission system (Happy Valley-Goose Bay) and
21 Labrador West has a local network. Both systems are limited in size and sensitive to
22 material load increases. There is approximately 750 kilometres of transmission line on the
23 Labrador Interconnected System serving approximately 11,240 customers (approximately
24 67 metres per customer). The average cost of transmission reflected on the Labrador
25 Interconnected System retail rates is approximately 0.4 cents per kWh.

26

27 As indicated in the “Labrador Interconnected System Transmission Expansion Study,” an
28 increased rate of load growth on the Labrador Interconnected System will require costly
29 investments in transmission. Newfoundland and Labrador Hydro (“Hydro”) currently has a
30 number of cryptocurrency customers requesting service on the Labrador Interconnected

1 System to gain access to low cost electricity. Table 1 in the “Labrador Interconnected
2 System Network Addition Policy Summary Report” provides several transmission options to
3 meet load growth that require transmission investments between \$15 million and \$50
4 million. Approval of the approximate \$20 million Muskrat Falls to Happy Valley
5 Interconnection project, when fully reflected in customer rates, will increase retail Labrador
6 customer rates by approximately 3.3 percent in 2021.

7
8 The Island Interconnected System has approximately 5,600 kilometres of transmission line
9 (3,500 kilometres owned by Hydro and 2,100 kilometres owned by Newfoundland Power
10 Inc.) serving approximately 292,000 customers (approximately 19 metres per customer).¹
11 Even though the metres of transmission investment per customer on the Island
12 Interconnected System is approximately one-third of the transmission investment per
13 customer in Labrador, the cost of transmission investment embedded in customer rates is
14 approximately 1.4 cents per kWh (more than three times as high as in Labrador).

15
16 The Island System is characterized by an expansive 230 kV network that meets all Power
17 Transmission System reliability criteria. The system also includes a collection of radial
18 transmission systems (such as the Burgeo Network) and local networks (such as the Burin
19 Peninsula Network). With the exception of requests to serve large customer load on radial
20 transmission lines serving rural areas of the Island, the Island Interconnected System can
21 meet most customer load requests without acceleration of transmission investment.

22
23 While the embedded cost of transmission investment on the Island is materially higher than
24 in Labrador, Hydro is forecasting minimal growth on the Island Interconnected System. As a
25 result there is not currently a concern that load growth will prompt material investment in

¹ Approximately 268,200 served by Newfoundland Power and 23,900 served by Hydro.

- 1 transmission assets over the next five years.² The impact of network additions to the Island
- 2 is materially different than Labrador.

² The average marginal cost of transmission on the Island Interconnected System is approximately 0.4 cents per kWh.