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September 25, 2017

SENT VIA E-MAIL

Cheryl Blundon
Board Secretary
Board of Commissioners of Public Utilities
P.O. Box 21040, St. John's, NL A1A 5B2

Dear Ms Blundon:

Re: 2017 General Rate Application of Newfoundland and Labrador Hydro, Requests for Information, Round #1

Enclosed are the original and twelve (13) copies of the Labrador Interconnected Group's RFIs, numbered LAB-NLH-001 through LAB-NLH-051, inclusive, in respect of the above-noted Application.

We have provided a copy of this correspondence together with enclosures to all concerned parties. We trust you will find the enclosed satisfactory.

Yours truly,
Olthuis Kleer Townshend LLP

Senwung Luk

SL/tm

- c. Newfoundland and Labrador Hydro (gyoung@nlh.nl.ca; traceypennell@nlh.nl.ca; alex.templeton@mcinnescooper.com; NLHRegulatory@nlh.nl.ca)
Newfoundland Power (ghayes@newfoundlandpower.com; lobrien@curtislaw.com; regulatory@newfoundlandpower.com)
Consumer Advocate (dbrowne@bfma-law.com; sfitzgerald@bfma-law.com; bbailey@bfma-law.com; sarahfitzgerald@bfma-law.com)
Industrial Customer Group (pcoxworthy@stewartmckelvey.com; dporter@poolealthouse.ca; dfleming@coxandpalmer.com)
Iron Ore Company of Canada (van.alexopoulos@ironore.ca; benoit.pepin@riotinto.com)

IN THE MATTER OF the *Public Utilities Act*, RSN 1990, Chapter P-46 (the “Act”); and

IN THE MATTER OF a General Rate Application (the “Application”) by Newfoundland and Labrador Hydro (the “Applicant”) for approvals of, under Section 70 of the Act, changes in the rates to be charged for the supply of power and energy to Newfoundland Power, Rural Customers and Individual Customers; and under Section 71 of the Act, changes in the Rules and Regulations applicable to the supply of electricity to Rural Customers.

**Requests for Information by the Labrador Interconnected
Group**

LAB-NLH-1 to LAB-NLH-51

September 25, 2017

1 **Requests for Information – Round 1**

2 **LAB-NLH-1 Re: NLH Evidence, Section 1, page 1.7; Section 5.9, page 5.39 and 5.40**

3 Preamble:

4 Table 1-1 (on page 1.7) indicates a rate increase for the Labrador Industrial Transmission
5 Rate (LITR) of 14.9% for the Interim 2018 TY (relative to July 1, 2017 rates), and for
6 another 38.9% for the 2019 TY (relative to the Interim 2018 TY rates).

7 According to note 8 (page 1.7), The percentage increase in the Labrador Industrial
8 Transmission rate does not provide the total customer billing impact as the percentage is
9 calculated based on the projected change in transmission demand charges but does not
10 include the non-regulated portion of the bill that recovers generation costs.

11 Table 5-8 shows that Labrador Industrial Billings for transmission will increase from 4.0
12 to 5.6 (an increase of 40%) in the Proposed 2019 rates, compared to the proposed Interim
13 2018. (No units are specified.)

14 a) Do Tables 5-7 and 5-8 represent the customer billing impacts for customers subject to the
15 Labrador Industrial Transmission Rate (LITR), resulting from the LITR rate increases shown
16 in Table 1-1?

17
18 b) If not, please:

- 19
20 i. explain the relationship between the figures shown in Table 5-8 and those shown in
21 Table 1-1, and
22 ii. quantify the customer billing impacts for customers subject to the Labrador
23 Industrial Transmission Rate (LITR), resulting from the LITR rate increases shown
24 in Table 1-1.
25

26 c) Please specify the units and/or assumptions underlying Tables 5-7 and 5-8.
27

28 **LAB-NLH-2 Re: NLH Evidence, Section 2.5, page 2.15**

29 Preamble:

30 Table 2-6 shows Hydro Energy Conservation Program Costs remaining stable for 2017F,
31 2018F and 2019F. Table 2-5 shows Hydro Energy Conservation Program Savings dropping
32 in the commercial sector in 2018F and 2019F, and dropping dramatically in 2019F for the
33 residential sector.

34 Please:

- 35 a) complete Tables 2-5 and 2-6 by providing year-by-year savings and costs for the Hydro
36 Energy Conservation Program through 2009 through 2016, and
37

- 1 b) explain why forecast energy savings are forecast to fall so significantly, especially in the
2 residential sector, despite constant funding.

3 **LAB-NLH-3 Re: NLH Evidence, Section 3.4, page 3.10**

4 Preamble:

5 Table 3-3 provides SAIFI and SAIDI for all regions combined. The figures for SAIDI are
6 extremely high.

7 Please provide SAIFI and SAIDI figures for each year from 2012 through 2016 for each cost of
8 service area (Island Interconnected System, Labrador Interconnected System, Anse au Loup, and
9 the Island Isolated System and Labrador Isolated System).

10 **LAB-NLH-4 Re: NLH Evidence, Section 3.5.2, pages 3.19 through 3.22**

11 Preamble:

12 The section explains how Hydro's generators and power purchases are modelled in Vista
13 DSS (Vista). No mention is made of the Muskrat Falls Generating Station.

14 Citation (page 3.20):

15 Hydro has undertaken significant effort to further develop its Vista model to more
16 accurately represent the changing Newfoundland and Labrador electricity system. ...

17
18 Inflows to each of Hydro's reservoirs are calculated daily from measured water levels
19 and estimated outflows. ...

- 20
21 a) Has Hydro begun to model the power supply to come from Muskrat Falls Generating Station
22 (MFGS), in anticipation of its eventual addition to Island Interconnected System supply?
23
24 b) If so, is the modelling based on the hydraulics of the MFGS, or on the parameters of the
25 power purchase agreement with Nalcor? If the latter, please describe in the detail the
26 parameters being relied on.
27
28 c) If not, when does Hydro intend to begin modelling the power supply to come from MFGS,
29 and on what basis will the modelling take place?

30 **LAB-NLH-5 Re: NLH Evidence, Section 3.5.2, page 3.23**

31 Citation:

32 Newfoundland Power's generation credit is calculated based on the Island Interconnected
33 System's reserve at criteria. Reserve at criteria is not the same as system reserve. To
34 calculate the reserve at criteria, the 240 MW reserve margin is subtracted from the total
35 Island Interconnected System capacity at peak, inclusive of capacity assistance contracts, to
36 determine the maximum Island Interconnected System demand that can be supported on

1 peak. This maximum demand that can be supported on peak is then used to calculate the
2 percent reserve at criteria.
3

4 Please a) define the concept of “reserve at criteria”, and b) explain the utilisation made of the
5 Newfoundland Power Generation Credit.

6 **LAB-NLH-6 Re: NLH Evidence, Section 3.8, page 3.44 and 3.45**

7 Citation:

8 Hydro is currently evaluating its level of compliance with the North American
9 Electric Reliability Corporation (NERC) reliability standards and the Northeast
10 Power Coordinating Council (NPCC) regional reliability criteria, in its
11 consideration of the appropriate reliability framework for the Newfoundland and
12 Labrador electricity system. While Hydro has not been mandated by the
13 Provincial Government to implement NERC standards, the Company recognizes
14 the benefits that the NERC reliability standards provide and, as a prudent
15 operational measure, is in the preliminary stages of reviewing and assessing the
16 standards that are applicable for [their] adoption into the Island Interconnected
17 System. Hydro is also reviewing the approach it will use to implement applicable
18 NERC reliability standards and the impacts that these standards will have on the
19 Island Interconnected System when the Island of Newfoundland interconnects
20 with Nova Scotia and Labrador via the Maritime and Labrador-Island links,
21 respectively.
22
23

24 a) Please confirm that Hydro has decided to apply the NERC reliability standards, even
25 though it has not been mandated to do so by the Provincial Government;
26

27 b) Is Hydro considering application of NERC standards to the Island electricity system only,
28 or to all of the Newfoundland and Labrador electricity system? Please explain, with
29 specific reference to the Labrador Interconnected System.
30

31 c) Please describe the regulatory calendar envisioned by Hydro for the eventual
32 implementation of NERC standards; and
33

34 d) Please indicate Hydro’s position with respect to the NPCC regional reliability criteria.
35

36 **LAB-NLH-7 Re: NLH Evidence, Schedule 3-IV, pages 2 and 3 of 3**

37 Citation 1 (p. 3.20):

38 Hydro’s sources of supply are detailed in the production plan (referred to as the hydro-
39 thermal split) and are included in Schedule 3-IV. The actual energy supply sources and

1 fuel expenses for 2015, 2016, and the forecast for 2017 through to the 2019 Test Year
2 are summarized in Schedule 3-V.

3
4 Citation 2 (p. 6.1):

5 The availability of the LIL, LTA, and the Maritime Link transmission lines, expected in
6 2018, will provide Hydro with off-island supply options for the Island electrical system
7 from 2018 to 2020 while the construction of the Muskrat Falls Plant continues. With the
8 availability of these transmission components, there is a significant opportunity to
9 reduce Holyrood generation by using off-island power purchases in 2018, 2019, and
10 2020.

11

12 Preamble:

13 The **Production Plan** for 2018 and 2019 show Holyrood production of 1554.5 and
14 1560.3 GWh/yr, respectively, and no off-island purchases. Based on Citation 2, it would
15 appear that Hydro intends to import significant quantities of off-island generation, and to
16 produce significantly less electricity at Holyrood.

17 a) Is the statement in the preamble correct? If not please, correct it.

18 b) Please:

- 19 i. confirm that Hydro expects Holyrood generation in 2018 and 2019 to be less than the
20 values indicated in Schedule 3-IV;
21 ii. confirm that Hydro expects off-island imports in 2018 and 2019 that are not indicated
22 in Schedule 3-IV;
23 iii. provide tables showing Hydro's Production Plan for 2018 and 2019 taking into account
24 its current forecast of expected Holyrood generation and off-island imports.

25 **LAB-NLH-8 Re: NLH Evidence, Schedule 3-V, page 1 of 1**

26 Preamble:

27 The **Energy Supply and Fuel Expense** shows Holyrood production of 1554.5 and
28 1560.3 GWh/yr, respectively, and corresponding Holyrood fuel consumption of
29 2,522,118 and 2,533,629 barrels of No. 6 Fuel, at a cost of \$217.9 and \$220.7 million,
30 respectively. These figures are apparently based on the deemed levels of Holyrood
31 production, rather than the expected actual levels, and ignore the facts that Hydro intends
32 to import significant quantities of off-island generation and to produce significantly less
33 electricity at Holyrood.

34 a) Is the statement in the preamble correct? If not please, correct it.

35 b) Please:

- 36 i) confirm that Hydro expects Holyrood fuel consumption in 2018 and 2019 to be less
37 than the values indicated in Schedule 3-V;
38 ii) provide a table showing Hydro's Energy Supply and Fuel Expense, reflecting its
39 current forecast for expected fuel use and fuel cost for 2018 and 2019.

1 **LAB-NLH-9 Re: NLH Evidence, Schedule 3-VI, page 1 of 1**

2 Preamble:

3 The table shows no off-island electricity purchases. Based on Citation 2, it would appear
4 that Hydro nevertheless intends to import significant quantities of off-island generation in
5 2018 and 2019.

6 a) Is the statement in the preamble correct? If not, please correct it.

7 Please:

- 8 i) confirm that Hydro expects off-island imports in 2018 and 2019 that are not indicated
9 in Schedule 3-VI; and
10 ii) provide a table showing Hydro’s Energy Purchases by Supplier, reflecting its current
11 forecast for expected off-island energy purchases for 2018 and 2019.
12 iii) Please provide any existing power purchase agreement with any generation or
13 transmission utility, including but not limited to Churchill Falls (Labrador) Corp Ltd
14 and Emera Inc, from whom supply to the Island Interconnected System may be
15 expected in 2018 and 2019.
16 iv) If no such power purchase agreements have yet been signed, please provide an
17 overview of the status of Hydro’s discussions with such suppliers, and undertake to
18 update the Board and intervenors as these discussions evolve.

19

20 **LAB-NLH-10 Re: NLH Evidence, Section 4.2, page 4.3**

21 Please provide a table similar to Table 4-2 for the Labrador Interconnected System only.

22 **LAB-NLH-11 Re: NLH Evidence, Section 4.2, page 4.6**

23 Please provide a table similar to Table 4-5 for the Labrador Interconnected System only.

24 **LAB-NLH-12 Re: NLH Evidence, Section 4.2, page 4.8**

25 Please provide a table similar to Table 4-7 for the Labrador Interconnected System only.

26 **LAB-NLH-13 Re: NLH Evidence, Section 4.2, page 4.11**

27 Citation:

28 Hydro is forecast to incur approximately \$1.2 million in 2018 in external regulatory costs
29 with respect to the current Application.

30

31 Please:

- 32 a) Specify what is included in “external regulatory costs”, and break down the amounts, by
33 cost type and proceeding;

34

1 b) Specify Hydro's estimate of its internal regulatory costs, and break down the amounts, by
2 cost type and proceeding; and

3
4 c) Specify the actual internal and external regulatory costs from the previous GRA, and
5 break down the amounts, by cost type and proceeding.
6

7 **LAB-NLH-14 Re: NLH Evidence, Schedule 4-I – Revenue Requirement Analysis**

8 Please provide a similar schedule for the Labrador Interconnected System only.

9

10 **LAB-NLH-15 Re: NLH Evidence, Schedule 4-III – Return on Rate Base (Existing**
11 **Rates)**

12 Please provide a similar schedule for the Labrador Interconnected System only.

13

14 **LAB-NLH-16 Re: NLH Evidence, Section 5.2, page 5.2**

15 Citation:

16 Upon the full commissioning of the Muskrat Falls Project, supply cost payments will
17 commence under the Transmission Funding Agreement and Muskrat Falls Power Purchase
18 Agreement, and Holyrood, as a generating station, will eventually be phased-out.

19

20 Please:

21 a) Provide a high-level summary of the Transmission Funding Agreement and the Muskrat
22 Falls Power Purchase Agreement, and

23

24 b) provide copies of each.

25 **LAB-NLH-17 Re: NLH Evidence, Section 5.2, page 5.3**

26 Please provide copies of a) Hydro's proposal to delay the cost of service methodology hearing
27 until after the 2017 GRA, and b) the letter dated September 9, 2016 by which the Board
28 approved it.

29 **LAB-NLH-18 Re: NLH Evidence, Section 5.2, page 5.4, note 5**

30 Citation:

31 Hydro filed two reports with the Board on marginal costs reflecting the Labrador-Island interconnection.
32 Part 1 was filed on December 29, 2015 and focused on methodology issues. Part 2 of the report was filed
33 on February 26, 2016 and provided marginal cost estimates reflecting the Labrador-Island
34 interconnection. The Rate Design Review Report which reviewed the Wholesale Rate of Newfoundland
35 Power and the Island Industrial Customer rate was filed by Hydro on June 15, 2016.

- 1
2 a) Please provide copies of the two reports with the Board on marginal costs reflecting the
3 Labrador-Island interconnection and the Rate Design Review Report.
4
5 b) According to Hydro's preferred regulatory calendar, when should these reports be
6 approved by the Board, and following what type of process?

7 **LAB-NLH-19 Re: NLH Evidence, Section 5.2, page 5.4 and 5.5**

8 Citation:

9 Hydro and its parent company, Nalcor Energy (Nalcor), will be expected to provide open
10 access to its transmission facilities during the transition period. The provision of open
11 access requires the implementation of a transmission tariff which conforms to
12 universally-accepted reciprocity standards. Under an open access regime, operating and
13 maintenance costs associated with transmission facilities are recovered through a
14 published transmission tariff. Reciprocity standards require that Hydro also pay the
15 same published transmission tariff that is chargeable to outside third parties that want
16 to flow energy on the Provincial transmission grid.
17

18 Please indicate:

- 19 a) who will expect Hydro and Nalcor Energy to provide open access to its transmission
20 facilities during the transition period, and on what basis,
21 b) what entity establishes the reciprocity standards that require that Hydro pay the same
22 published transmission tariff that is chargeable to outside third parties that want to flow
23 energy on the Provincial transmission grid, and
24 c) when Hydro intends to submit an Open Access Transmission Tariff for Board approval.
25

26 **LAB-NLH-20 Re: NLH Evidence, Section 5.2, page 5.4 and 5.5**

27 Citation:

28 Hydro and its parent company, Nalcor Energy (Nalcor), will be expected to provide open
29 access to its transmission facilities during the transition period. The provision of open
30 access requires the implementation of a transmission tariff which conforms to
31 universally-accepted reciprocity standards. Under an open access regime, operating and
32 maintenance costs associated with transmission facilities are recovered through a
33 published transmission tariff. Reciprocity standards require that Hydro also pay the
34 same published transmission tariff that is chargeable to outside third parties that want
35 to flow energy on the Provincial transmission grid.
36

37 Preamble:

38 FERC policies are designed to ensure that the opening of the wholesale electricity market
39 and the implementation of open access transmission tariffs does not adversely affect
40 Native Load customers.

1 Please:

- 2 a) confirm or correct the statement in the preamble;
- 3 b) indicate whether or not Hydro shares this objective;
- 4 c) if so, indicate by what means it has ensured or intends to ensure that the establishment of
- 5 open access transmission tariff does not adversely affect Native Load customers.

6 **LAB-NLH-21 Re: NLH Evidence, Section 5.2, page 5.6**

7 Citation:

8
9 Nalcor's June 23, 2017 project update stated that average island residential electricity rates
10 would increase to 22.89 cents (¢) (plus HST) per kilowatt hour (kWh) in 2021.
11

- 12 a) Did Hydro assist Nalcor in making this rate projection?
- 13 b) If so, does Hydro adopt this projection of average island 2021 electricity rates as its own?
- 14 c) If not, has Hydro carried out analyses of the impacts of the integration of the Muskrat
- 15 Falls Project on Island Interconnected System rates? If so, please provide copies of these
- 16 analyses.
- 17 d) If Hydro has not carried out analyses of the impacts of the integration of the Muskrat
- 18 Falls Project on Island Interconnected System rates, please explain why it has not done
- 19 so, and/or when it intends to do so.
- 20 e) Did Nalcor also make a projection for Labrador residential and general service rates? If
- 21 so, please provide it, along with copies of the underlying analyses.

22 **LAB-NLH-22 Re: NLH Evidence, Section 5.2, page 5.6**

23 Citation:

24 The Board's approval of the proposed Off-Island Purchases Deferral Account will begin the
25 transition to customer rates that will provide an opportunity to achieve reasonable recovery
26 of Muskrat Falls Project costs. The current proposal is a critical step to set the foundation
27 for the broader approach for rate mitigation to be successful.
28

29 Please explain why Hydro considers the current proposal to be a critical step.

30

31 **LAB-NLH-23 Re: NLH Evidence, Section 5.2, page 5.14**

32 Please explain why the amounts in Table 5-1 (Required Increase in Customer Billings to Recover
33 Revenue Requirement) are substantially higher than those in Table 1-1 (Proposed Average
34 Interim and Final Rate Changes).

35 **LAB-NLH-24 Re: NLH Evidence, Section 5.2, page 5.14**

36 Citation:

1 The implementation of new customer rates that recover 2019 Test Year revenue
2 requirement from rates effective January 1, 2019, would result in a revenue deficiency of
3 approximately \$70.0 million for 2018 without interim relief.

4
5 Please provide a similar statement with respect to the Labrador Interconnected System only.

6 **LAB-NLH-25 Re: NLH Evidence, Section 5.8.4, page 5.33**

7 Please provide a high-level explanation of the reasons for the proposed interim rate increase of
8 5.9% (2018) and the additional rate increase of 6.5% (2019) for the Labrador Interconnected
9 System, and explain each of the key drivers.

10 **LAB-NLH-26 Re: NLH Evidence, Section 5.8.4, page 5.33**

11 Citation :

12 Hydro has undertaken an Automated Meter Reading (AMR) project for the Labrador
13 Interconnected System.

14
15 Please indicate:

16 a) the total cost of this project,

17 b) the year(s) when it has been and/or will be implemented,

18 c) the expected benefits, both financial and operational,

19 d) the alternatives that were considered, and

20 e) when the Board approved of this AMR project or, if it has not yet done so, the process by
21 which Hydro intends to obtain such approval.

22 **LAB-NLH-27 Re: NLH Evidence, Schedule 3-II**

23 a) Please break down the first line of Schedule 3-II (Hydro Rural Interconnected) by
24 municipality.

25 b) Is electricity supplied to Fermont, Quebec through the Labrador Interconnected System?
26 If so, please clarify if these supplies are included in the Hydro Rural Interconnected or, if
27 not, where they are accounted for.

28 c) Is electricity supplied to Shefferville, Quebec by NLH? If so, please clarify if these
29 supplies included in the Hydro Rural Interconnected or, if not, where they are accounted
30 for.

31

32 **LAB-NLH-28 Re: NLH Evidence, Section 5.9.1, p. 5.35**

33 Citation:

1 Labrador West transmission is nearing its capacity limitations. The cost of providing new
2 transmission to meet load growth on the Labrador Transmission System is high and can
3 materially impact future customer rates.
4
5

6 Please:

- 7 a) confirm that the transmission lines that are nearing their capacity limitations are the lines
8 between Churchill Falls and Labrador City indicated in red in the inset to Exhibit 1,
9 Schedule 1;
10
11 b) Explain the significance, if any, of the fact that there are no numbers indicated to identify
12 these lines on Exhibit 1, Schedule 1;
13
14 c) confirm that the allusion to the high cost of meeting load growth on the Labrador
15 Transmission System is a reference to the Labrador West Transmission Project, referred
16 to in Note 51;
17
18 d) describe in detail the status of this project, which was discussed at length in the hearing
19 on the 2013 Revised GRA;
20
21 e) indicate how much load growth would be required in Labrador West before this project
22 would be necessary; and
23
24 f) Disaggregate the forecast Lab West load growth between domestic and industrial
25 customers, and
26
27 g) Confirm whether power purchases from Hydro-Quebec system has been considered for
28 meeting the Lab West load growth, and disclose any reports in which the costs of this
29 option have been considered.
30
31

32 **LAB-NLH-29 Re: NLH Evidence, Section 5.9.1, p. 5.35**

33 Citation:

34 Labrador West transmission is nearing its capacity limitations. The cost of providing new
35 transmission to meet load growth on the Labrador Transmission System is high and can
36 materially impact future customer rates.
37

38 Preamble:

39 A map of the Labrador Transmission System is found in Exhibit 1, Schedule 1.

40 Please:

- 1
2 h) Confirm whether the Labrador Transmission System is used to supply power to Fermont,
3 Quebec, and if so, what parts of the Labrador Transmission System are used to do so, and
4 what is the size of that load (in MW and GWh);
5 i) Confirm that power from Churchill Falls is available at the Normand substation in
6 Quebec;
7 j) Confirm that there is no transmission line connecting Normand to Fermont;
8 k) Please identify any agreements in place between Québec and Newfoundland and
9 Labrador, and/or between Hydro-Québec and NLH, governing the supply of Fermont,
10 and provide copies thereof;
11 l) Are the energy supply to Fermont and the revenues therefrom identified in the present
12 filing? If so, please indicate where. If not, please provide these figures;
13 m) Please indicate whether or not there have ever been discussions, either Québec and
14 Newfoundland and Labrador, and/or between Hydro-Québec and NLH, concerning the
15 possibility of terminating or modifying this agreement, in light of the capacity constraints
16 affecting the Labrador West region. If so, please describe the exchanges that have taken
17 place, and the status of the question.

18 **LAB-NLH-30 Re: NLH Evidence, Section 5.9.1, p. 5.36**

19 Citation :

- 20 The capital cost of new transmission line facilities servicing Labrador West from Churchill
21 Falls is projected to be in the range of \$5 to \$6 per kW.
22 a) Is this estimate based on the Labrador West Transmission Line? Please provide detailed
23 calculations in support of this figure.
24 b) Please describe other measures under review by Hydro to allow it to meet additional
25 requirements for capacity and energy in Labrador West at lower cost (e.g. local
26 generation, demand-side measures, storage, etc.).

27

28 **LAB-NLH-31 Re: NLH Evidence, Section 5.9.2**

29 Please provide a table similar to that provided in IN-NLH-249 from the 2013 Revised GRA
30 hearing, which presented an analysis of the rate implications of the recent and forecast capital
31 expenditures in the LIS.

32 **LAB-NLH-32 Re: Section 5.9, page 5.35**

33 Citation:

34 In Order No. P.U. 49(2016), the Board approved the transmission demand rate to be available
35 to existing customers only.

36 Should a new industrial customer appear in Labrador, what rate would it be charged? Would a
37 hearing before the PUB be required before such a customer could be offered electric service?
38 Please explain.

1 **LAB-NLH-33 Re: Section 5.9, page 5.35**

2 Citation:

3 The average embedded cost for transmission demand allocated to Labrador industrial
4 Customers has increased from the \$1.19 per kW approved for the 2015 Test Year to \$1.44
5 per kW for the 2018 Test Year and \$1.86 per kW for the 2019 Test Year. The increase results
6 from the additional transmission investment on the Labrador Interconnected System
7 reflected in the 2018 and 2019 Test Years compared to 2015 Test Year.
8

9 Please provide a detailed list of the additional transmission investments on the Labrador
10 Interconnected System since 2015, with amounts expended per year.

11 **LAB-NLH-34 Re: Section 5.9, page 5.36 and 5.37**

12 Citation 1 (p. 5.36):

13 The Labrador Industrial class peaks in the winter period, which is consistent with the system
14 peak on the Labrador Interconnected System. Growth in system peak will accelerate the
15 requirement for additional transmission on the Labrador Interconnected System. Hydro
16 considers it appropriate to provide an improved price signal to promote effective demand
17 management by the Labrador Industrial Customer class. Accordingly, Hydro is proposing a
18 change to the Labrador Industrial rate design to promote effective use of resources through
19 efficient demand management. Hydro is proposing an inclining block rate structure for the
20 Labrador Industrial Transmission demand charge. ...

21
22 The proposed modification to the rate design does not change the total Test Year cost to be
23 recovered from Labrador Industrial Transmission Customers. However, the proposed rate
24 design provides a stronger financial incentive for the Labrador Industrial Customers to
25 reduce their winter peak demands.
26

27 Citation 2 (p. 5.37)

28 The proposed higher priced second block will apply when the customer's load is in
29 excess of 90% of its annual Power on Order. The proposed rate design to become
30 effective January 1, 2018 on an interim basis is as follows:

31 First Block (90% of Annual Power on Order) @\$1.34 per kW per month
32 Excess @\$2.83 per kW per months

- 33 a) Please confirm that the rate proposed in Citation 2 is not seasonal; i.e., the higher rate of
34 \$2.83/kW-month would apply in any month in which demand exceeds 90% of Annual
35 Power on Order, regardless of the season.
36 b) Please explain why the proposed rate design is preferable to a seasonal rate, that would
37 charge a higher rate for winter months.

38 **LAB-NLH-35 Re: Section 5.9, page 5.37**

1 Citation:

2 The generation demand costs allocated to Labrador Industrial Customers will continue to be
3 recorded by Hydro as a cost recovery and included in Other Revenues.

4

5 Please explain in detail the proposed regulatory treatment of generation demand costs for
6 Labrador Industrial Customers.

7 **LAB-NLH-36 Re: Section 6.2, page 6.2, note 4**

8 Citation :

9 Nalcor's June 23, 2017 project update stated that average island residential electricity rates are expected to
10 increase to 22.89 ¢ per kWh (plus HST) in 2021 primarily as a result of the Muskrat Falls Project. The present
11 average rate for these customers is 11.7 ¢ per kWh (plus HST), a gap of 11.19 ¢ per kWh. The level of increase
12 in customer rates resulting from the supply from the Muskrat Falls Project is a policy decision to be made by
13 the Provincial Government.
14

15 Please explain why Hydro considers that the level of increase in customer rates resulting from
16 the supply from the Muskrat Falls Project is a policy decision to be made by the Provincial
17 Government, rather than a regulatory decision to be made by the PUB.

18 **LAB-NLH-37 Re: Section 6.2, page 6.2 and 6.3**

19 Citation :

20 Nalcor's accounting requirements relating to the recognition of depreciation and interest
21 expense on the LIL and LTA assets during the interim use period prior to full commissioning
22 of the Muskrat Falls Project are currently under review and Nalcor is actively working on
23 this issue. Should Nalcor be required to recognize these costs as an expense as a result of
24 transmission assets being used in advance of the full project completion, it would be
25 reasonable for Hydro to reimburse Nalcor for those costs associated with Hydro's use of the
26 assets. In this circumstance, Hydro will file an application to the Board seeking to place
27 these costs in a separate cost deferral account for future recovery from customers.
28

29 a) What entity is reviewing Nalcor's accounting requirements with respect to the
30 recognition of depreciation and interest expense on the LIL and LTA assets during the
31 interim use period?
32

33 b) Why should the accounting practices of a non-regulated entity affect Hydro's obligations
34 to it?
35

36 c) Please identify and quote any provisions of the Muskrat Falls Power Purchase Agreement
37 or any other agreement between Nalcor and Hydro that suggest that, should Nalcor be
38 required to recognize depreciation and interest expense prior to full commissioning of the
39 Muskrat Falls Project as a result of transmission assets being used in advance of the full

1 project completion, Hydro should reimburse Nalcor for these costs, despite the provisions
2 of OC2013-343.

3

4 **LAB-NLH-38 Re: Section 6.2, page 6.3**

5 Citation:

6

7 The existing supply cost deferral accounts will not capture savings that may result from off
8 island power purchases. (Note 6: Supply cost variances as a result of variability in power
9 purchases are dealt with through the ESCVA. However, the existing terms of the ESCVA
10 identifies each source of purchase to be used in computing the cost deferral. Off-island power
11 purchases are not included in the current ESCV Account definition. Therefore, the Holyrood
12 No. 6 fuel savings from off-island power purchases will not flow to the ESCVA. Off-island
13 power purchases will also impact the Holyrood fuel conversion rate and the balance to be
14 recovered from customers.) Under the current mechanics of Hydro's existing supply cost
15 deferral accounts, savings related to off-island power purchases would result in increased
16 earnings to Hydro.

17

18 Preamble:

19 It is apparently because off-island power purchases are not included in the current ESCV
20 Account definition that savings related to off-island power purchases would result in
21 increased earnings to Hydro, instead of being passed on to customers.

22 Please:

23 a) confirm or correct the statement in the Preamble;

24

25 b) confirm that, if the terms of the ESCVA were amended to include off-island purchases,
26 savings related to off-island power purchases could be passed on to customers; and

27

28 c) indicate whether not the PUB has jurisdiction to amend the ESCVA.

29 **LAB-NLH-39 Re: Section 6.2, page 6.3**

30 Citation:

31

32 Under Hydro's proposal, the fuel savings would be applied against the total cost of power
33 purchases (including energy purchase costs and any delivery costs incurred to obtain off-
34 island supply, including agency fees) and the operating and maintenance costs from Nalcor
35 to access the LIL and LTA.

36

37 Please:

- 1 a) confirm that the energy purchase costs for Recapture Energy would be the 0.2 cents/kWh
2 paid by Hydro by virtue of the Power Purchase Agreement between Hydro and CF(L)Co
3 (note 8, page 6.5); and
4 a) explain in detail
5 i. how the delivery costs and agency fees would be determined; and
6 ii. how the “operating and maintenance costs from Nalcor to access the LIL
7 and LTA” would be determined.

8 **LAB-NLH-40 Re: Section 6.2, page 6.3**

9 Citation :

10 ... depending on the timing of the completion of the Maritime Link, Hydro could have access
11 to the off-island power purchases in late 2017. Therefore, Hydro will be filing an application
12 requesting interim approval to establish the proposed Off-Island Purchases Deferral
13 Account to become effective December 1, 2017.

14 Will Hydro also be filing an application to fix the transmission tariffs for the use of the Maritime
15 Link, the LIL and the LTA to become effective December 1, 2017? If not, why not?

16

17

18 **LAB-NLH-41 Re: Schedule 6-I, page 1 of 1**

19 Citation:

20

21 H = Amounts paid by Hydro for the use of Labrador Island Link and Labrador Transmission
22 Assets.

23

24 Please:

- 25 a) explain how the amounts to be paid by Hydro for the use of Labrador Island Link and
26 Labrador Transmission Assets are to be determined; and
27
28 b) explain why no mention is made of the cost of using the Maritime Link, insofar as off-
29 island purchases use that line.

30

31 **LAB-NLH-42 Re: Exhibit 2, pages 3-4**

32 Preamble:

33 Section 4.3 is inconsistent in the verb tenses used to describe the creation of the
34 Newfoundland and Labrador System Operator (NLSO):

1 “The creation of the Newfoundland and Labrador System Operator (NLSO) is an
2 important step in the integration of the Muskrat Falls assets into the provincial electrical
3 system and the Island’s interconnection with the North American electricity grid.”
4

5 “The NLSO will reside in Hydro but will be functionally separate and will act as the
6 independent system operator for the transmission system in the Province. It will
7 operate the facilities owned by Hydro and Nalcor along with interconnections to
8 Emera’s Maritime Link assets on the island.”
9

10 “Hydro has structured the NLSO into three main areas: Transmission Planning, System
11 Operations, and Reliability and Commercial Management:

12 “Transmission Planning – The transmission planning group is responsible for the
13 safe, efficient, reliable, and environmentally responsible planning of the
14 provincial interconnected transmission system.

15 “System Operations – The System Operations group manages the Newfoundland
16 and Labrador power system and coordinates the supply of and demand for
17 electricity in accordance with reliability standards in effect in the province.

18 “Reliability and Commercial Management – The NLSO is responsible for
19 establishing the reliability framework for operating the bulk electrical system.
20 The NLSO is also responsible for offering open and non-discriminatory access to
21 the Newfoundland and Labrador interconnected transmission system to all
22 transmission customers, including Nalcor affiliates and non-affiliated third
23 parties.”
24

25 Please clarify the status of the NLSO:

- 26
- 27 b) Is it already in existence and already carrying out these functions?
 - 28
 - 29 c) If so, was it created in response to directives from either the provincial government or
30 the PUB, or purely as an initiative of NLH?
 - 31
 - 32 d) If the NLSO is not already in existence and already carrying out these functions, is
33 Hydro awaiting authorization to do so from the PUB in the context of the present
34 proceeding?

35 **LAB-NLH-43 Re: Exhibit 2, pages 3-4**

36 Citation:

37
38 Industry recognized standards, such as those developed by the Federal Energy Regulatory
39 Commission, recommend that functional separation exist between power production and
40 the NLSO.

- 41
- 42 a) Please provide precise references for these “industry recognized standards”.
- 43

- 1 b) Is functional separation the only structure acceptable to the FERC? If not, please describe
2 the other structures commonly used for System Operators, and explain why Hydro has
3 chosen the “functional separation” model over the alternatives.
4
- 5 c) Is Nalcor Energy Marketing the only entity that, according to FERC standards, would
6 require be covered by Standards of Conduct to ensure the independent functioning of the
7 NLSO, or are there also functions within Hydro that would also have to remain
8 functionally separate from it? Please explain your answer.
9
- 10 d) Does the FERC have any jurisdiction over Hydro, over Nalcor, or over the NL
11 transmission system? If so, please explain the source of that jurisdiction, and explain the
12 respective roles of the FERC and the PUB.

13 **LAB-NLH-44 Re: Exhibit 2, pages 3-4**

14 Citation:

15 The NLSO will reside in Hydro but will be functionally separate and will act as the
16 independent system operator for the transmission system in the Province. It will operate
17 the facilities owned by Hydro and Nalcor along with interconnections to Emera’s Maritime
18 Link assets on the island.
19

- 20 a) Will the NLSO also operate the transmission line connecting Churchill Falls to the
21 Hydro-Québec system? If so, will it operate that line just to the Quebec border, or to the
22 first substation in Quebec?
23
- 24 b) Please explain the frontier and interface between the control area managed by NLSO and
25 that managed by Reliability Coordinator of Quebec, in particular with respect to the
26 Churchill Falls Generating Station and the transmission lines connecting it to the Quebec
27 grid.
28
- 29 c) Has Hydro-Québec indicated its agreement with this arrangement? If so, please provide a
30 copy of communications to that effect from Hydro-Québec.
31
- 32 d) Will the NLSO also operate or control the Maritime Link? If not, please indicate what
33 entity is responsible for its reliable operation, and how the interface between that entity
34 and the NLSO is organized.
35

36 **LAB-NLH-45 Re: Exhibit 2, pages 3-4**

37 Citation:

38 The System Operations group manages the Newfoundland and Labrador power system
39 and coordinates the supply of and demand for electricity in accordance with reliability
40 standards in effect in the province.
41

1 a) Please describe in the detail the role of the System Operations group with respect to the
2 Churchill Falls Generating Station.

3
4 b) Has Hydro-Québec indicated its agreement with this role? If so, please provide a copy of
5 communications to that effect from Hydro-Québec.
6

7 **LAB-NLH-46 Re: Exhibit 2, page 4**

8 Citation:

9 The NLSO is also responsible for offering open and non-discriminatory access to the
10 Newfoundland and Labrador interconnected transmission system to all transmission
11 customers, including Nalcor affiliates and non-affiliated third parties.
12

13 a) Has the NLSO already developed an open access transmission tariff (OATT) to govern
14 open and non-discriminatory access to the Newfoundland and Labrador interconnected
15 transmission system?
16

17 b) If so, has it submitted the OATT to the PUB for approval?
18

19 c) If not, does it intend to submit its OATT to the PUB for approval? Please explain in
20 detail the process it intends to follow.

21 **LAB-NLH-47 Re: Exhibit 2, Schedule I, p. 18 of 33**

22 Please provide an organization chart of the transmission planning, system operations and
23 reliability functions at Hydro prior to the creation of the NLSO, in order to clearly show the
24 changes.
25

26 **LAB-NLH-48 Re: Exhibit 7, page 5 of 168**

27 Please provide a copy of the table indicating performance results for each KPI for the Labrador
28 Interconnected System.
29

30 **LAB-NLH-49 Re: Exhibit 13, page 37 of 60**

31 Citation:

32 The above analysis takes place in the context of conditions in which system planners
33 have accorded a role *a priori* to wind power in capacity planning. Once this assumption
34 is made, then calculations of a wind component lead reasonably to the results reported
35 in Mr. Dean's testimony. The issue, then, is whether the presence of a demand share at
36 other utilities, whose planners view wind as having a capacity component in system

1 planning, should have weight in contradicting a utility's system planners who believe, as
2 Hydro's do, that wind should be accorded no weight in capacity planning.

3 Unfortunately, calculations by other utilities are based on their planners' views and
4 practices. If a utility's planners see no capacity value in wind, as Hydro's evidence
5 suggests that they do, then others' calculations are not necessarily of value. Logically,
6 Hydro's planners' views are prior to discussions of any calculations of capacity factor
7 and, ultimately, classification share. From this perspective, Hydro is entitled to claim
8 that its planners' views are paramount. By extension, the utility need not perform a
9 study of capacity factors and performance of wind generation in peak hours or hours of
10 low reserves since the results are not bound to influence the planners' conclusions.

11 Questions for Mr. Chapman:

- 12
- 13 a) Please provide a precise reference to where Hydro has indicated that its planners see no
 - 14 capacity value in wind, and to the justification provided for that view.
 - 15 b) Please identify by name and title the planners referred to in the citation, and explain why
 - 16 the PUB should be bound by their views.
 - 17 c) When was the last planning exercise before the PUB in which this question was
 - 18 addressed?
 - 19 d) If Hydro's planners should change their view and come to the conclusion that wind
 - 20 power could indeed contribute to meeting Hydro's capacity needs to a certain extent in
 - 21 the future, would it then become necessary to modify the current cost allocations?

22 **LAB-NLH-50 Re: Exhibits 14 and 15, Schedule 2.1E**

23 Please:

- 24
- 25 a) provide source data and appropriate breakdowns for the following lines for Column 5
 - 26 (Transmission Demand \$) for FY 2018 (Exhibit 14) and FY 2019 (Exhibit 15) for the
 - 27 Labrador Interconnected System :
 - 28 i. Line 1 (operating and maintenance,
 - 29 ii. Line 7 (depreciation)
 - 30 iii. Line 21 (Return on Debt)
 - 31 iv. Line 22 (Return on Equity)
 - 32
 - 33 b) provide a list of the assets in the Labrador Transmission System rate base, including for
 - 34 each:
 - 35 i. the name and identifier,
 - 36 ii. the original cost,
 - 37 iii. the book value (after accumulated depreciation).
 - 38
 - 39 c) explain the status of any transmission assets in Labrador that are not included in this rate
 - 40 base calculation (e.g. if appropriate, the lines connecting Churchill Falls to Quebec).
 - 41

42 **LAB-NLH-51 Re: Exhibits 14 and 15, Schedule 3.1E**

- 1 a) With respect to Column 5 (Transmission Demand), please confirm that lines 1 through 3
2 represent the coincident peak demand of all industrial users of the Labrador Transmission
3 System, that lines 4 through 10 represent the coincident peak demand of all non-industrial
4 users of the Labrador Transmission System, and that line 12 (Total Labrador
5 Interconnected) represents the total coincident peak demand on the Labrador
6 Transmission System;
- 7 b) Please confirm that, if and when the Labrador Transmission System is also be used by
8 “wheeling” customers to transmit power out of or through the Labrador Interconnected
9 system, the coincident peak demand of such users will also be reflected in line 12 (Total
10 Labrador Interconnected);
- 11 c) Given the discussion in section 6.1, which suggests that the LTA and LIL will be used to
12 transmit power from the Churchill Falls Generating Station to Newfoundland Island once
13 those facilities are in service in 2018, please explain why no coincident peak usage for
14 the Labrador Transmission System is identified in Schedule 3.1E of Exhibits 14 and 15
15 for the years 2018 and 2019.