



Newfoundland and Labrador Hydro
Hydro Place, 500 Columbus Drive
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 | f. 709.737.1800
nlhydro.com

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Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Cheryl Blundon
Director of Corporate Services and Board Secretary

Re: Application for a Non-Firm Rate for Labrador – Hydro's Reply

Newfoundland and Labrador Hydro ("Hydro") filed its application for a Non-Firm Rate for Labrador with the Board of Commissioners of Public Utilities ("Board") on September 15, 2022.¹ That application also proposed amendments to the Island Industrial Non-Firm Rate to reflect the transition of the marginal energy cost on the Island Interconnected System to the market value of exports. On March 29, 2023, Hydro filed a revised application, with modifications to the date on which the non-firm rates will be effective, the establishment of a minimum price for the non-firm energy charge for customers on the Labrador Interconnected System and Island Industrial customers, and revisions to Hydro's Supply Cost Variance Deferral Account definition to allow non-firm revenues from the Labrador Interconnected System customers to contribute to rate mitigation for the Island Interconnected System.²

1.0 Application Summary

Hydro's proposals, as revised, are for a rate to be charged to customers in Labrador for non-firm service that is based on the incremental cost of supply. As increased energy usage on the Labrador Interconnected System reduces the availability of exports, the incremental cost of supplying non-firm energy will reflect the market value of exports. Hydro proposed that the rate would be based on a forecast market price to be updated monthly based on a blend of the New York wholesale energy market price and the New England Massachusetts Hub energy market price and would differentiate between peak and off-peak periods. Hydro further proposed that the Non-Firm Rate not include a demand charge and that the administrative charge be a monthly Basic Customer Charge equal to that applied for Island Interconnected System General Service customers with demands of 1,000 kVA or greater. Additionally, Hydro proposed that to protect against the possibility of negative pricing for non-firm energy, a minimum price be established based on the energy price component of Rate 2.4L that currently applies to large General Service customers on the Labrador Interconnected System.

With respect to the Island Industrial Customers, Hydro proposed a revision to the rate currently in place for an Industrial customer-specific MW block in excess of their firm load. The energy price currently in place, applicable when the customer uses load in excess of firm load, is based on Hydro's incremental energy costs at the time of delivery, plus an administrative fee and a charge for system losses. At present, the energy costs are typically based on the monthly Holyrood Thermal Generating Station ("Holyrood TGS") fuel cost. As with the Labrador Non-Firm Rate, Hydro noted that the marginal energy

¹ "Application for Non-Firm Rates," Newfoundland and Labrador Hydro, September 15, 2022.

² "Application for Non-Firm Rates – Revision 1," Newfoundland and Labrador Hydro, March 29, 2023.

cost on the Island Interconnected System is expected to transition to the market value of exports. Hydro proposed amendments to the Island Industrial Customers' rate to reflect the market value of exports as the incremental cost of providing non-firm energy while continuing the option to apply thermal fuel costs as the incremental cost in the early periods following the commissioning of the Muskrat Falls Assets, including the Labrador-Island Link ("LIL"). Hydro also proposed a minimum price for the non-firm rate for the Island Industrial Customers also based on the energy price component of Rate 2.4L, which applies to the large General Service customers on the Labrador Interconnected System, to protect against negative pricing and for consistency with the Non-Firm Rate proposed for the Labrador Interconnected System. The revised rate does not include an administrative fee.

2.0 Party Comments – Hydro's Response

Hydro notes that all parties provided final comments to the application, with a number of the parties addressing similar issues. Hydro's response will address these common issues first, with the remaining issues raised by the parties following.

2.1 Allocation of Non-Firm Power in Labrador

Both the Labrador Interconnected Group ("LIG") and the Island Industrial Customer Group ("IIC Group") referenced the issue of power distribution and priority in the allocation of non-firm power in Labrador. Hydro had noted, in its response to LAB-NLH-008 of this proceeding, that the load would be served in the following priority—Firm Town Loads, Firm Industrial Customer Loads up to the contracted Power on Order, Interruptible Industrial Customer Loads up to contracted amounts, Non-Firm Rate Customer Loads up to their allocations, and finally, equal sharing of any additional excess capacity between Industrial customers and Non-Firm Rate customers. The LIG takes the position that current Industrial customers should have priority over non-firm loads for any additional energy they require, including amounts that exceed their contracted amounts, based on the nature of the Industrial customers as an economic driver for the region. The IIC Group also noted that Hydro's proposal would offer interruptible power to customers who are not already established firm power customers. The IIC Group's position is that Hydro's existing high firm demand customers should be given access to the same rates and should have priority over new customers who would only avail of the Non-Firm Rate. The IIC Group acknowledges that the issues of power distribution and priority are not the subject of the present application and suggests that they should be considered as part of the next general rate application.

Hydro notes that, while the proposed allocation priority has the existing Labrador Industrial customers limited to their contractual firm and interruptible amounts, with the non-firm customers receiving their allocation before any additional available non-firm power is shared, there are many variables that could impact the results of that allocation priority in terms of the amount of non-firm energy actually utilized by the various customers. For example, there may be infrastructure constraints that limit a non-firm customer from availing of any additional non-firm power exceeding its allocation, thus leaving further opportunity for more power to be shared among the remaining Non-Firm and Industrial customers. The Industrial customers may also have constraints from time to time due to their own systems that prevent them from availing of non-firm power that exceeds their contractual amounts. At this time, Hydro does not have final calculation of non-firm capacity that can be made available, as a system impact study will be required to make this determination; that study will be completed subsequent to the conclusion of this application process, once certainty on the number of customers that intend to proceed with non-firm service in Labrador is reached. The results of this study could have implications for the allocation and whether the proposed priority would have any impact on the Labrador Industrial customers. Hydro agrees with the IIC Group that the issue of power distribution and priority is not the subject of the present application; this will be subject to further review and discussion amongst the parties once this

process has concluded and once there is further certainty regarding the number of customers availing of the rate.

2.2 Month-Ahead Pricing

While being supportive of the application, the Consumer Advocate noted that it would like to see a shorter update period for pricing such as weekly or daily. The Consumer Advocate did not feel that price certainty and rate stability were as much of a concern for non-firm customers as for firm customers and that non-firm customers should manage those aspects of the rates themselves.

Blockchain Labrador Corp.'s ("BlockLAB") submission stated ". . . setting a monthly price based on two month old prices is unusual and unnecessary. Local customers will be forced to decide a month in advance whether to take power." BlockLAB referenced other utilities with daily price updates, enabling customers to determine if the pricing is economically feasible and submits this would enable cryptocurrency customers to make timely decisions, particularly when they can engage and disengage within minutes.

Hydro notes that the price is not proposed to be set based on two-month-old prices. Hydro has proposed to use the market price set on the 21st day of the month preceding the month for which the rate will apply.³ It is the volumes used to determine the weighting applied to each market that would use data from two months prior. As Hydro noted in its response to PUB-NLH-015 of this proceeding, a monthly price is proposed, as this data is publicly available. Hydro has indicated it will continue to consider a more frequent basis and will complete research to confirm its ability to source and provide daily or weekly forward market prices. Additional time would be required to implement a non-firm rate that would be updated more frequently. There may also be increased administrative costs and possible billing system investments associated with that change. Hydro proposes to move forward with a non-firm rate as proposed in the revised application and will continue with customer consultation and internal review for any future changes to the implementation of the rate.

2.3 Demand Charge

The LIG's submission strongly advocates for a demand charge to be applied to non-firm service in Labrador. Its argument is that non-firm customers would not be required to make any contribution to the capital and operating costs of a system for which they use, which is unfair and unreasonable to the customers who pay the costs of that system. The LIG notes that the utilities examined by Christensen Associates Energy Consulting, LLC ("CA Energy") in its report that provide surplus/additional energy do so to customers that are also firm service customers, who already pay a demand charge as part of their existing contracts and in that way contribute to the upkeep of the transmission system.

Newfoundland Power Inc. ("Newfoundland Power") noted that, as indicated by Hydro, it is not common practice for utilities to include a demand charge in non-firm service-related rate offerings. However, Newfoundland Power did note that utilities across Canada do include an additional per-kWh charge in their non-firm rate offerings for similar purposes. Newfoundland Power's position is that the energy rate should include a per-kWh "adder" to ensure that non-firm customers contribute toward the recovery of costs associated with common assets being used to deliver the energy.

As Hydro noted in Schedule 1 to its revised application, the sale of non-firm energy will not contribute to increased investment in generation capacity or common transmission capacity and, therefore, will not contribute to additional capacity costs to be recovered through firm customer rates. Investment in

³ Please refer to Hydro's response to PUB-NLH-015 of this proceeding.

transmission, if required, to provide non-firm service to new customers will be recovered through up-front contributions from non-firm customers. Hydro also noted that while the non-firm customers would not pay explicitly for the use of the common transmission facilities through customer rates, they will be subject to the pricing variability in the energy markets and may, at times, pay charges for non-firm energy in excess of the published firm energy rates, in particular in Labrador where the firm electricity rates are among the lowest in North America. As a result, Hydro does not believe a demand charge for the use of non-firm service is necessary.

2.4 Administrative Fee

The IIC Group supported Hydro's decision to not include a 10% administrative fee in the Labrador Non-Firm Service Rate and asks for confirmation that the administrative rate will also not apply to the non-firm rates charged to Island Industrial Customers. Hydro can confirm that that is its proposal.

Newfoundland Power submits that as the activities related to Hydro's non-firm rate are unique to that service, the basic customer charge that Hydro proposes to allocate based on the basic customer charge applied for Island Interconnected System General Service customers with demands of 1,000 kVA or greater is not appropriate. Newfoundland Power suggests that this could be eliminated if a per-kWh cost adder were implemented, as additional administrative costs may not be necessary. Hydro refers to its response, above, with respect to the adder. Newfoundland Power alternatively suggests that Hydro complete a detailed analysis to determine the appropriate administrative charge for the non-firm rate.

Hydro notes that in its response to PUB-NLH-022 of this proceeding, Hydro acknowledges that using the proposed method for allocating the rate is a first step in establishing the non-firm rate. Hydro acknowledges that it is not a like-for-like comparison; however, Hydro believes that the metering costs incurred to serve Hydro's non-firm customers will be similar to those incurred in serving those Newfoundland Power customers that avail of their rate 2.4. Hydro noted that once the non-firm rate is implemented and Hydro has an opportunity to better understand the requirements to administer the non-firm rate, Hydro would be able to present a fully informed review with respect to the administrative cost of making the non-firm rate available. A couple of winter seasons will likely be needed for Hydro to collect adequate information to complete its review.

2.5 Impact on Recapture Energy

Both Newfoundland Power and the LIG expressed concerns about the implications of possible customer connection for non-firm power at a location close to the Muskrat Falls Terminal Station on the Recapture Block. Newfoundland Power's concern was particularly regarding how non-firm service provided via a direct connection to the Muskrat Falls Terminal Station could impact the provision of service over the LIL, such as through reduced power transfers to the Island. The LIG's concern was that the Recapture Block could be exhausted by non-firm sales, resulting in a requirement for new transmission and upward pressure on rates in the Labrador Interconnected System.

Non-firm power is only provided when it is not otherwise being utilized by firm service customers. That is the case even if non-firm service is provided via a direct connection to the Muskrat Falls Terminal Station. Non-firm service in that manner would have no impact on power transfers to the Island, as non-firm service would be curtailed if circumstances arose that would impact firm customer service. As noted in Hydro's responses regarding allocation, power is first allocated to Firm Town Loads, Firm Industrial Customer Loads up to the contracted Power on Order, and Interruptible Industrial Customer Loads up to contracted amounts. Load growth will reduce the amount of power available for non-firm customers; no common infrastructure investment will be made to serve non-firm customers. It is part of the proposed rate that non-firm customers would be curtailed in favour of the firm customers who have

priority in the allocation and while the non-firm customers may utilize all available non-firm load, this would not prompt further generation investment if there was still available power to serve firm customers. Further, as Hydro noted in its response to LAB-NLH-015 of this proceeding, costs incurred for any upgrades implemented by Hydro to its transmission system that strictly supply non-firm customers would be paid for by non-firm customers and would not impact the rates of the other customers on the system. The LIG requested that Hydro be permitted to only serve Non-Firm customers using Recapture Energy and that service to Non-Firm customers be curtailed whenever another source was necessary to supply the Labrador Interconnected System. As Hydro noted above, the provision of non-firm energy would not have implications for the service of firm customers, nor would it cause Hydro to incur expenditures that would have implications for rates for other Labrador Interconnected System customers. Hydro does not believe that the LIG's requests are necessary.

At this time, Hydro does not have plans to connect customers to the Muskrat Falls Terminal Station, as the interconnection estimate analysis was halted after the filing of this application and the issuance of Order-in-Council OC2022-266 ("OC2022-266"). If Hydro were to continue with the interconnection estimates they would have to be re-studied subsequent to the conclusion of the application process.

2.6 Other Comments

The various parties also had other comments on the revised application that were unique to their submissions. Hydro's reply to those comments follow.

2.6.1 BlockLAB

Proposed Rate Structure

BlockLAB had other issues with the proposed rate structure in addition to those detailed above. BlockLAB submitted that although Hydro transmits the surplus power from the Recapture Block through Quebec, Hydro proposes to price non-firm energy as a blend of the New York and New England prices and not deduct the costs of transmission through Quebec. As Hydro noted in its revised application, with the commissioning of the Muskrat Fall Project and the construction of the Maritime Link, Hydro projects that the future value of most export sales will reflect the prices in the New England market. Hydro proposed to compute a blend of the two forecast market prices in determining the non-firm rate, with the weighting on the projected price from each market being based on the volumes sold in each market in the previous calendar month. Transmission costs through Quebec are not included in the marginal cost for the New York market price, as they are a fixed cost, not marginal.

BlockLAB further submitted that non-firm power should be designed to be revenue-neutral and inferred that Hydro's price was designed to recover lost profit opportunities. Additionally, BlockLAB argues that Hydro's proposal for a price floor is unfair and contrary to the current pricing of interruptible power where lower prices in the New York market have resulted in interruptible power being sold for less than firm power. Hydro submits that its proposal for a non-firm rate that is based on the market value of exports is revenue neutral as it is meant to recover, through the sale of non-firm energy, the same revenue it would have recovered through the sale of that energy as exports. The floor price was instituted to protect Hydro against the possibility of negative pricing. The floor price would only be instituted when the net export price declined to below the firm energy price charged to large General Service customers on the Labrador Interconnected System. Hydro's alternative would be to stop exporting and store water until the export market improves.

BlockLAB Contract

BlockLAB argues that a portion of the power that is being considered as available for non-firm service is available year round and should be considered firm power, and allocated to BlockLAB due to what BlockLAB describes as representations and undertakings made to it prior to entering into a temporary service agreement with Hydro. BlockLAB further submits that it should continue to be afforded the 7.75 MW of curtailable power that it currently receives on a temporary basis pursuant to a contract with Hydro and that this is required under OC2022-266.

As Hydro noted in its responses to BKL-NLH-064, BKL-NLH-065, and BKL-NLH-066 of this proceeding, OC2022-266 exempts Hydro from the legislative obligation to supply firm electrical service to applicants from cryptocurrency industries. Cryptocurrency customers currently receiving firm energy, including BlockLAB, have continued to receive service; however, no additional firm load connections are being permitted for these customers. BlockLAB's application in 2017 for 20 MW of firm power was denied, as there was inadequate transmission capacity available on the 230 kV lines servicing Labrador West to provide that amount of power. Subsequently, Hydro and BlockLAB agreed upon a Temporary Service Agreement of up to 7.75 MW of capacity when it was available; that contract has been extended and will expire once a Board Order regarding the proposed Non-Firm Rate has been received. At that time, BlockLAB will not be entitled to firm service. OC2022-266 states that the exemption ". . . shall not apply to cryptocurrency mining applicants who were approved for and receiving service as a cryptocurrency mining customer at the time of the issuance of the Order in Council for as long as they continue to receive that service, and that any changes to such a customer's service, including an increase in connected load, would result in the customer being subject to the exemption." The expiry of the temporary service agreement will result in BlockLAB being subject to the OC2022-266 exemption.

Legislative Mandate

BlockLAB alleges that the proposal runs contrary to Hydro's legislated mandate in that it is discriminatory and not reasonable and would impede or preclude industrial activity in Labrador because of the price increases. As Hydro notes in its responses to BKL-NLH-075 and BKL-NLH-076 of this proceeding, this application is consistent with Hydro's obligation to supply power at rates that are "reasonable and not unjustly discriminatory." The rates that Hydro proposes to charge for non-firm service are reasonable. Hydro has an obligation to treat all customers seeking access to non-firm power in a fair and equitable manner⁴ and Hydro believes that its proposal for allocation of the non-firm power meets that obligation. Additionally, the rate that is established for the sale of firm power to Labrador Industrial customers was established pursuant to the Labrador Industrial Rates Policy, intended to meet Hydro's statutory obligation to promote the development of industrial activity in Labrador. The approval of the proposed non-firm rate will have no impact on the firm electricity rate charged to Hydro Industrial customers in Labrador. Hydro does not expect the proposed non-firm rate option to have any detrimental impact on the development of industrial activity in Labrador.

BlockLAB also submits that the proposal to transition the regulated marginal energy costs on the Island to the market value of exports is a matter best considered in a general rate application. Hydro believes that this issue was presented to the Board and parties with the level of detail that would be provided in a general rate application and there has been ample opportunity for review, discussion, questions

⁴ Public Utilities Act, RSNL 1990, c P-47, s73(1): All tolls, rates and charges shall always, under substantially similar circumstances and conditions in respect of service of the same description, be charged equally to all persons and at the same rate, and the board may by regulation declare what shall constitute substantially similar circumstances and conditions.

through requests for information, and submissions from the parties similar to that in a larger general rate application. Hydro believes this forum of review is fully appropriate.

Labrador Interconnected Group

The LIG expressed concern regarding the allocation of the non-firm revenues generated in Labrador. They submit that while utilizing the revenues to subsidize rates on the Island may be reasonable while existing energy demand in Labrador is satisfied with Recapture Energy, when non-firm revenue is generated using energy other than Recapture, the revenues should be directed to offset rates in Labrador. Hydro notes, as it did above, that the Recapture Block cannot be exhausted by non-firm sales, only through utilization to serve firm load. At present, there is sufficient recapture to meet firm load with additional amounts remaining to serve non-firm customers. There may also be further options to serve non-firm customers in Labrador that do not have implications for Labrador rates; however, Hydro will consider this request if there is future investment in generation, the cost of which would be recovered from Labrador Interconnected customers, that would become a source of energy for the provision of non-firm service.

Newfoundland Power

Newfoundland Power advised that it is supportive of the proposed amendments to the Island Industrial Customer rate sheets to reflect the market value of exports; however, they submit that the Island Industrial Customer non-firm rate should include both a per-kWh adder and a minimum price. Hydro confirms that the non-firm rate for the Island Industrial Customers does have a minimum price as proposed for Labrador customers. Hydro's comments regarding the adder are set out above.

Island Industrial Customer Group

The IIC Group similarly supports Hydro's attempts to make the non-firm rates for Labrador customers and the Island Industrial Customers consistent; however, the IIC Group submits this is a first step and there are other issues to discuss and consider, including the notion that at times the Island Industrial customers and Labrador customers may require different treatment. The IIC Group requests that Hydro continue consultation with the IIC Group members and to include non-firm energy rate offerings as an issue for consideration in the next general rate application. Hydro commits to continuing consultation with the IIC Group and all parties regarding next steps and the development of non-firm rates.

Consumer Advocate

The Consumer Advocate advised that it supports the application. The Consumer Advocate's concern about the frequency of price updates has been addressed above. With respect to the suggestion that a similar program be offered to other large customers in the province, Hydro notes that industrial customers or customers who can connect at voltages of 46 kV or more are those that could best avail of a non-firm rate and have the flexibility to do so.

Hydro believes that its proposals for a non-firm rate in Labrador, amendments to the Island Industrial Customer Non-Firm Rate, and the discontinuance of the Secondary Energy Rate on the Labrador Interconnected System generally reflect accepted utility practice in other jurisdictions. Hydro respectfully requests that the Board approve Hydro's Revised Application as submitted.

Cheryl Blundon
Board of Commissioners of Public Utilities

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Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/sk

ecc:

Board of Commissioners of Public Utilities
Jacqui H. Glynn
PUB Official Email

Labrador Interconnected Group
Senwung F. Luk, Olthuis Kleer Townshend LLP
Nicholas E. Kennedy, Olthuis Kleer Townshend LLP

Newfoundland Power Inc.
Dominic J. Foley
Lindsay S.A. Hollett
Regulatory Email

Island Industrial Customer Group
Paul L. Coxworthy, Stewart McKelvey
Denis J. Fleming, Cox and Palmer
Dean A. Porter, Poole Althouse

Consumer Advocate
Dennis M. Browne, KC, Browne Fitzgerald Morgan & Avis
Stephen F. Fitzgerald, Browne Fitzgerald Morgan & Avis
Sarah G. Fitzgerald, Browne Fitzgerald Morgan & Avis
Bernice Bailey, Browne Fitzgerald Morgan & Avis

Blockchain Labrador Corp.
Paul D. Dicks, KC, Benson Buffett
Megan S. Reynolds, Benson Buffett

Iron Ore Company of Canada
Gregory A.C. Moores, Stewart McKelvey

Envoum Corp.
Ali Amadee, DentonsCanada LLP