The Consumer Advocate

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Via Courier

Board of Commissions of Public Utilities
120 Torbay Road, P.O. Box 2140
St. John's, NL A1A 5B2

Attention: G. Cheryl Blundon, Director of Corporate Services / Board Secretary

Dear Ms. Blundon:

Re: Reference to Board on Rate Mitigation Options and Impacts

Enclosed please find the Submission of the Consumer Advocate in reference to the above.

Yours truly,

Dennis Browne, Q.C.
Consumer Advocate

/jl

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REFERENCE TO THE BOARD ON RATE MITIGATION OPTIONS AND IMPACTS CONSUMER ADVOCATE'S SUBMISSION

The Public Utilities Board ("The Board") has been requested by Government to undertake a review of electricity rate mitigation options and impacts in relation to the Muskrat Falls Project ("MFP") in accordance with the reference from the Lieutenant-Governor in Council under section 5 of the *Electrical Power Control Act* issued on September 5, 2018 ("the Reference"). Generally, the Board has been directed to review and report on:

1) Options to reduce the impact of the Muskrat Falls Project costs on electricity rates;
2) The amount of required and surplus energy and capacity from the project; and
3) The rate impacts of the identified options based on the most recent project cost estimates. [1]

The MFP was flawed in its original concept. Two independent reviews by entities that were not under contract to Nalcor – The August 2011 Federal-Provincial Joint Review Panel Report and the March 2012 Public Utilities Board Reference Report did not support the MFP at its original cost, let alone its current much inflated cost. In addition, its execution has been poor, being well behind its sanctioned time schedule at approximately double the cost estimate when first announced in November 2010.

The MFP is among three very troubled and controversial hydro projects under construction in Canada: the other two being Site C in British Columbia and Keeysak in Manitoba. The table below compares the three projects. In the comparison the MFP capacity and energy estimates are adjusted to account for the 35 year commitment made to Nova Scotia under the Energy and Capacity Agreement in exchange for Emera's construction of the Maritime Link. The table shows that the MFP cost is highest among the three projects, yet it delivers less capacity and energy. By these metrics, the MFP is the worst of the three projects.[2]

	Site C	***Keeysak***	***MFP***
Capacity (MW)	1132	695	650 (= 824-NS block)
Energy Per Year (Millions of MWh)	5.2	4.4	3.90 (= 4.9-NS block)
Estimated Completion Cost (billions)	$10.7	$8.7	$12.7

The MFP was undertaken by Nalcor, which is not a public utility project and did not receive regulatory approval. According to a CBC news article on the Muskrat Falls Inquiry, Nalcor's current CEO, Mr. Stan Marshall, was quoted as saying that if Nalcor Energy had been populated with experts in utility operations, as opposed to those with long historical in oil and gas, it would never have endorsed the highly controversial and massively over-budget hydroelectric project.[3]

[1] Reference to the Board of Commissioners of Public Utilities September 5, 2018 Office of the Minister of Department of Natural Resources.

[2] AJ Goulding, Dammed If You Do: How Sunk Costs Are Dragging Canadian Electricity Ratepayers Underwater, C. D. Howe Institute, Commentary 528, January 2019.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_528.pdf

[3] https://www.cbc.ca/news/canada/newfoundland-labrador/muskrat-marshall-utility-1.5197065

The Federal Government MFP loan guarantee requires that the Government of Newfoundland and Labrador ensure that Hydro's regulated rates for its customers will collect sufficient revenue to pay for the MFP.[4] The provincial government subsequently narrowed this cost assignment through OC2013-343 to a subset of the regulated ratepayers, namely the Island Interconnected ratepayers. Thereby Island Interconnected ratepayers were to be assigned costs in their regulated rates for an unregulated non-utility project that was conceptually flawed and poorly executed. This amounts to rate-setting by fiat and is inconsistent with widely accepted regulatory principles wherein ratepayers should pay only those costs prudently incurred for the services that they consume.

Project Sanction

How the MFP came to be sanctioned has been the result of a separate inquiry (the "Inquiry") established by Order in Council 2017-339 under the *Public Inquiries Act*. To differentiate between the objectives of the Inquiry and the objectives of the Board Reference a brief overview of the mandate of the Inquiry is worth noting:

1. The Commission of Inquiry Respecting the Muskrat Falls Project (the "**Inquiry**") is an independent commission set up by the Government of Newfoundland and Labrador (the "**Government**") by way of an Order-in-Council (O.C. 2017-339) (the "**Order-in-Council**") pursuant to the *Public Inquiries Act, 2006*, SNL 2006 c. P-38.1, as amended (the "***Public Inquiries Act***"), to inquire into: the decision to sanction the Muskrat Falls Project (the "**Project**"); the construction and oversight of the Project's progress and costs; whether exemption from oversight by the Commissioner of Public Utilities was justified and what impact, if any, such lack of oversight has had on the Project; and whether the Government was fully informed in relation to this Project at the time that it sanctioned the Project, and whether it kept appropriate oversight as regards the progress and costs of construction for the Project.[5]

The results of the Inquiry are due to be presented to the Government in December 2019.

The focus of the Inquiry was to investigate and determine *inter alia* whether the huge cost overruns of MFP were prudently incurred; the focus of the Reference is to address the rate shock arising from the MFP as the resultant unmitigated electricity rates for Island Interconnected ratepayers arising therefrom are expected to be double their current level.

The magnitude of the financial burden resulting from the failed MFP and placed on the province, taxpayers and ratepayers has no comparator in the province's history. For this reason, the Government requested the Board to undertake this Reference to assess and reduce the impact of the MFP costs on ratepayers.

The Reference Questions

The Public Utilities Board was directed to undertake the Reference as follows:

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[4] Appendix A of Agreement Providing Key Terms and Conditions For the
FEDERAL LOAN GUARANTEE BY HER MAJESTY THE QUEEN IN RIGHT OF CANADA
FOR THE DEBT FINANCING OF THE LOWER CHURCHILL RIVER PROJECTS, November 20, 2012.

[5] Source - Commission of Inquiry Respecting Muskrat Falls – Rules of Procedure – Rule 1.

"The Board shall review and report to the Minister of Natural Resources on:

1) Options to reduce the impact of MFP costs on electricity rates up to the year 2030, or such shorter period as the Board sees fit, including cost savings and revenue opportunities with respect to electricity, including generation, transmission, distribution, sales, and marketing assets and activities of Nalcor Energy and its Subsidiaries, including NLH, Labrador Island Link Holding Corporation, LIL General Partner Corporation, LIL Operating Corporation, Lower Churchill Management Corporation, Muskrat Falls Corporation, Labrador Transmission Corporation, Nalcor Energy Marketing Corporation, and the Gull Island Power Company (together the "**Subsidiaries**", and collectively with Nalcor Energy, "**Nalcor**");

2) The amount of energy and capacity from the MFP required to meet Island interconnected load and the remaining surplus energy and capacity available for other uses such as export and load growth; and

3) The potential electricity rate impacts of the options identified in Question 1, based on the most recent MFP cost estimates.[6]

In answering the Reference Questions, the Board was directed to consider the power policy of the province, as set out in the Electrical Power Control Act, 1994, and the following:

- "New and existing sources of Nalcor income that could be put towards reducing rate increases, including income from:
- Nalcor power exports, including those from generation assets it owns or controls, the MFP, and Churchill Falls recapture power, taking into account any export-related costs such as those relating to Nalcor Energy Marketing; and
- any other effective opportunities to find synergies, efficiencies and reduce duplication and costs within Nalcor and its subsidiaries.
- Whether it is more advantageous to Ratepayers to maximize domestic load or maximize exports. Depending on the Board's recommendation, provide options for:
    - increasing domestic load, such as:
        - The electrification of industrial facilities and oil-fueled boilers in heating plants; and
        - Incentives for increased electrification and usage by NL ratepayers, including increasing number of ratepayers, electric vehicles and electric heating; or
    - increasing exports, such as:

[6] Reference to the Board of Commissioners of Public Utilities September 5, 2018 Office of the Minister of Department of Natural Resources.

- Incentives for energy conservation, including for lowering system peak demand to maximize system capacity reserves, in order to increase availability of energy and capacity for export.

- Forward-looking cost savings and opportunities for increased efficiency related to operating and maintenance of MFP.
- What are industry best practices related to external market purchases and sales of electricity."[7]

REGULATORY JURISDICTION

The Board of Commissioners of Public Utilities (the "Board") is an independent administrative tribunal constituted under the *Public Utilities Act*, RSNL 1990, c. P-47 (the "Act"). The Board is responsible for, among other things, the regulation of and general supervision of public utilities in the Province and approves utility rates and capital spending. In carrying out its responsibilities the Board is required to implement the power policy set out in the *Electrical Power Control Act, 1994* SNL 1994, c. E-5.1 (the "EPCA").

The Board does not regulate Nalcor Energy ("Nalcor") which is exempt from the provisions of the *Public Utilities Act*, and the authority of the Board under s. 17(2) of the *Energy Corporation Act*, SNL 2007, c. E-11.01. Newfoundland and Labrador Hydro ("Hydro") is a subsidiary of Nalcor and, as a public utility, is regulated by the Board under the Act.

Section 4.1 of the Act may exempt a public utility from the Act's application where the public utility is engaged in activities as a matter of public convenience or general policy and in the best interest of the province.

By Order-in-Council OC2013-342, the Muskrat Falls Project Exemption Order was declared, exempting the Board from exercising its jurisdiction over Hydro in respect of any activity and any expenditures, payments or compensation, *inter alia*, related to the constructions and operation of Muskrat Falls and the transmission facilities of the Muskrat Falls Project (the "LTA"). This Exemption Order also applied to related Hydro companies enterprised in the Muskrat Falls Project.

Further, by OC2013-343 it was declared that until the project was commissioned MFP costs could not be charged to ratepayers.

> 3. *Notwithstanding sections 1 and 2, no amounts paid by Newfoundland and Labrador Hydro described in those sections shall be included as costs, expenses, or allowances in Newfoundland and Labrador Hydro's cost of service calculation or in any rate application or rate setting process, and no such costs, expenses or allowance shall be recovered by Newfoundland and Labrador Hydro in rates:*
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> a) *Where such amounts are directly attributable to the marketing or sale of electrical power and energy by Newfoundland and Labrador Hydro to persons located outside*

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[7] Reference to the Board of Commissioners of Public Utilities September 5, 2018 Office of the Minister of Department of Natural Resources.

the province on behalf of and for the benefit of Muskrat Falls Corporation and not Newfoundland and Labrador Hydro; and,

b) *In any event, in respect of each of Muskrat Falls, the LTA or the LiL, until such time as the projected is commissioned or nearing commissioning and Newfoundland and Labrador Hydro is receiving services from such project.*

OC2013-343 also mandated that the obligations of ratepayers to pay for the MFP was required regardless of the cost of MFP:

iii) **obligations of Newfoundland and Labrador Hydro in addition to those in paragraphs (i) and (ii) to ensure the ability of Muskrat Falls Corporation and Labrador Transmission Corporation to meet their respective obligations under financing arrangements related to the construction and operation of Muskrat Falls and the LTA shall be included as costs, expenses or allowances, without disallowance, reduction or alteration of those amounts, in Newfoundland and Labrador Hydro's cost of service calculation in any rate application and rate setting process, so that those costs, expenses or allowances shall be recovered in full by Newfoundland and Labrador Hydro in island interconnected rates charged to the appropriate classes of ratepayers.**

It must also be kept in mind that the EPCA regulates this province's electrical resources. The Act requires that all sources and facilities for the production, transmission and distribution of the province's power should be managed and operated in the manner that would result in reliable power being delivered to consumers in the province at the lowest possible cost. The Act also requires that rates to be charged should be reasonable.

BACKGROUNDER TO REFERENCE

The backgrounder to the Reference issued by Government on the 5th of September, 2018 stated that in its June 23rd, 2017 Muskrat Falls Project Update, Nalcor indicated that the capital cost and during-construction financing costs of the Muskrat Falls project had risen to $12.7 billion, which is more than double the estimated cost in 2011 when the Board was directed to compare that project with the isolated-island alternative. OC2013-343 places the financial burden of Muskrat Falls on Island Interconnected Customers. The obligations under the Federal Loan Guarantee dated November 30, 2012, placed the financial burden of the Muskrat Falls Project on Newfoundland and Labrador ratepayers. Under current pricing arrangements the price of electricity to be borne by residential customers on the Island Interconnected System would rise to 22.9 cents per kilowatt hour in 2021 and there would be further increases beyond this.

The enormous cost escalation in the Muskrat Falls Project and its resultant burden on Island Interconnected Customers dictates that it is in the best interests of the Province that energy policy and the complete process of electricity supply and delivery be examined and adjusted accordingly. The backgrounder further stated that it was Government's position that the projected rate increases associated with the Muskrat Falls Project are not acceptable. Without intervention, these projected rate increases would likely cause financial hardship for customers in all classes on the island portion of the province.

The backgrounder further stated that with the assistance of the Board the Government wished to examine options to reduce the impact of the Muskrat Falls Project on rates.

It is the Consumer Advocate's position that the primary focus of this Reference is to identify the ways and means for ensuring Island Interconnected Customers will be able to purchase electricity, in compliance with Section 3.1 (b) of the EPCA, in a manner that would result in power being delivered to consumers at the lowest possible cost consistent with reliable service. That should be the objective.

The Board filed an interim report to Government identifying preliminary findings on February 15, 2019. The Board has received Phase Two reports from its experts, The Liberty Consulting Group ("Liberty") and Synapse Energy Economics ("Synapse"). The Board conducted public hearings on the Phase Two reports during the period October 3 – 19, 2019; "*expert and non-expert evidence*" was filed by the parties in advance of the public hearings. This document is the Consumer Advocate's final submission on the Reference. It is understood that the final submissions by the parties will be considered by the Board for inclusion in its final report to Government which is expected to be filed by January 31, 2020.

Issues and Recommendations re: Reference and Rate Mitigation

In this section of the Consumer Advocate's submission, issues are identified for consideration by the PUB in its report to Government. Recommendations are based on these identified issues and all other reports and presentations which comprised the hearing.

Issue #1: Funding Rate Mitigation (Reference Question 1, options to reduce the impact of MFP costs on electricity rates)

The Provincial Government's OC2013-343 assigns all the costs of the MFP to Hydro's Island Interconnected customers for recovery through their rates. The purpose of OC2013-343 was to ensure financing for the MFP as required under the Federal Loan Guarantee Agreement. However, the rationale for this Rate Mitigation Options and Impacts Reference is a recognition that "*Without intervention, these projected rate increases would likely cause financial hardship for customers in all rate classes on the island portion of Newfoundland and Labrador*".[8] Consequently, the key objective of the Reference is to review and report on options to reduce the impact of MFP costs on electricity rates. With OC2013-343 still in place, rate mitigation would presumably be accomplished through (i) revenue transfers to Hydro to reduce its post-MFP revenue requirement in relation to its Island Interconnected customers, and (ii) internal economies within Hydro and other Nalcor units.

During the public hearing, there was discussion about subsidization of ratepayers by taxpayers to fund rate mitigation.[9] The opposite is true – Nalcor and its shareholder, i.e., the Provincial Government, made a bad investment choice by proceeding with the MFP. Although OC2013-343 places the full burden of the MFP's costs on Island Interconnected customers, it is more accurate to say that those ratepayers, without mitigation, are being forced to subsidize the project via Government-mandated unregulated monopoly prices. No matter how one views the MFP and regardless of commitments assigning its costs to Island Interconnected customers, the financial impact of the MFP should be the responsibility of Nalcor and its shareholder. That is what would happen in the private sector if an unregulated business were to undertake an investment project that turned out

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[8] Source Reference to the Board of Commissioners of Public Utilities September 5, 2018 Office of the Minister of Department of Natural Resources.

[9] Mr. Marshall states (October 8, 2019 transcript, page 97) "*Ultimately, like I say, if the government decides to subsidize, you can find a vehicle to do it.*" Further, Mr. Marshall states (October 8, 2019 transcript, page 7) "*The other two components we did a fair bit of work on was, you know, using other Nalcor cash flows to subsidize rates. We called it Nalcor Subsidization, and then there were cash flows that the province might have that could be used to subsidize rates.*"

to be uncompetitive. Any funds transferred by Nalcor and its shareholder to Hydro for rate mitigation are not a subsidy. Rather, such transfers are a means of reducing the excessive monopoly prices that otherwise would be unfairly imposed on Island Interconnected customers.

As for sources of rate mitigation funds, Nalcor, as the project proponent, should be the first and primary source. Liberty has identified Nalcor funds that could be used for that purpose. All the Nalcor related "financial sources," identified by Liberty, particularly the dividends from all the Nalcor entities engaged in the electricity sector, should be earmarked for mitigation. Also, but not considered by Liberty, Nalcor might potentially have significant earnings from greenhouse gas (GHG) credits or renewable energy credits (REC) on any electricity it sells. [10] These too should be devoted to rate mitigation.

There are other sources of Nalcor revenue that fall outside the scope of both this Reference and Liberty's analysis but are, nevertheless, available. One such source is Nalcor profits from its oil and gas operations. Nalcor itself in evidence states (page 35 of 38 of its September 20, 2019 report entitled "*Evidence of Nalcor Energy & Newfoundland and Labrador Hydro*) "*Oilco dividends received by Nalcor present a potentially valuable opportunity (approximately $2.4B) not considered by Liberty, similar to that of the other financial opportunities noted previously.*" Access to such funding and-if necessary-from privatizing OilCo for rate-mitigation purposes is a public policy choice to be considered by the Provincial Government.

In addition to funds from various Nalcor sources referred to above, the burden of paying for MFP can be eased by the Federal Government. Discussions are ongoing between the Federal Government and Nalcor's shareholder regarding the loan guarantee agreements. The Federal Government can assist rate mitigation in those negotiations in a number of ways, such as eliminating sinking-fund requirements and cancelling its loan guarantee fees. The Board or the parties are not privy to these negotiations.

Issue #2: Establishing Island Interconnected Customer Rates (Reference Question 1, options to reduce the impact of MFP costs on electricity rates)

The impetus for the Reference was a recognition that passing costs of the MFP through Hydro to its customers would lead to rate increases that are not acceptable. This raises the question as to what the target rates should be. The gap between those rates and the unmitigated rates determines the amount of mitigation that is required. Those target rates should not be determined by government fiat. There is an existing framework for setting rates in the Province and that should be respected.

Rates should be set according to established regulatory principles. Consistent with regulatory principles and current Provincial legislation, the cost of supply to Island Interconnected customers following in-service of the MFP would be the cost associated with capital and operating costs of electricity facilities on the Island Interconnected System plus the cost of purchases of power from off-island sources necessary to ensure demand is met consistent with reliability and socio-environmental requirements. In short, Island Interconnected customers ought to pay for the off-island services that they actually consume. Moreover, these Island Interconnected prices should be consistent with the lowest cost. Since the province will have access to the North American market, the lowest cost is the export cost. Therefore, in applying recognized regulatory principles, the cost for MFP electricity actually consumed by Island Interconnected customers would be based on a wholesale price equal to the market price.

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[10] Under questioning from the Consumer Advocate, Mr. Greg Jones of Nalcor Energy Marketing (October 10, 2019 transcript, pages 125-127) indicated that renewable energy credits have traded in the New York and New England markets at $15 per MWh and as high as $50 per MWh, and Nalcor was attempting to be qualified to trade RECs in those markets.

Therefore, rates should be based on the cost of supply as determined by an independent and informed regulatory commission, the Public Utilities Board. Basing rates on the cost of supply is a basic tenet of fairness and is needed if the province's energy resources are to be allocated in an efficient manner. The PUB was established for the purpose of providing "*independent*", defined as being free from Government influence, and "*informed*", defined as having a desired level of expertise in such matters, regulation. This approach in consistent with ensuring affordable electricity in compliance with Section 3.1 (b) of the EPCA which requires that all sources and facilities for the production, transmission and distribution of power in the Province be managed and operated in a manner that would result in power being delivered to consumers in the Province at the lowest possible cost consistent with reliable service.

In sum, rates should be set according to the normal process, which is cost-of-service regulation. That means that only electricity and services from the MFP actually consumed by Island Interconnected customers, with that electricity costed at the export market prices, should be included as a cost. The resulting rates are unlikely to generate sufficient revenue for Hydro to satisfy the OC2013-343. That revenue gap would determine the amount of funding needed for rate mitigation.

Issue #3: The Muskrat Falls Project and its Impact on Supply Costs, Adequacy and Reliability (Reference Question 2 on the amounts of MFP capacity and energy required to meet Island Interconnected load and remaining surpluses for other uses)

The last project update on the MFP was June 23rd, 2017 when costs had risen to $12.7 billion. As a result, we do not have up-to-date information on the costs of the project, the timing of commissioning of Muskrat Falls generation, or the timing of when the LIL will be fully functional with resolution of the software problem.[11] The status of the LIL software is troubling given its high cost impacts owing to the inability to transport low cost energy from Churchill Falls to the Island. Mr. Marshall stated (October 8, 2019 transcript, pages 57 and 58) "*If we had that LIL ready in the last several months, we would have saved 100 million dollars because there's all kinds of excess energy out there*". This sum equates to about a 1.5 cents/kWh impact on Island Interconnected customer rates. [12] The software issue has yet to be resolved. More worrisome is that Nalcor does not appear to have a suitable backup plan in the event the contractor fails to deliver the updated software.[13]

The MFP comes with another set of issues, in particular, the supply adequacy and reliability of the Island Interconnected System post Muskrat Falls commissioning. This issue is being addressed in *Hydro's Supply Adequacy and Reliability Study* expected to be submitted to the Board in late 2019. Concerns have been raised about the ability of the Maritime Link to provide reliable capacity during a bi-pole loss of the LIL. Further, the *2018 Marginal Cost Study Update* dated November 15, 2018 shows demand growth on the Island Interconnected System (Chart 1) and Capacity Additions and Retirements (Table 1). According to forecasts in this report, there will be no growth in demand and energy during the 2018 to 2028 time-frame. It also appears

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[11] Mr. Marshall states (October 8, 2019 transcript, page 151) "*my opinion is that we will get the LIL operating early in the next year, not in a fully functional manner, sort out the bugs through 2020 and we'll have a reasonable, good reliable system by 2021.*"

[12] Hydro has estimated that each 1 cent per kWh in rate mitigation would require approximately $70 million per year in funding (see PUB's Interim Report on Rate Mitigation Options and Impacts – Muskrat Falls Project dated February 15, 2019, page 21).

[13] Mr. Marshall states (October 8, 2019 transcript, page 63) "*GE is a company that's, if you're following the news, is in trouble. They're losing money on this project. That makes a very difficult situation.*"

that following commissioning of the MFP and retirement of Holyrood TGS and Hardwoods and Stephenville gas turbines there will be a net gain of 72 MW of capacity. If there is no demand growth and a net gain in capacity of 72 MW, one would expect that there would not be a need for new capacity and energy supply over the next decade on the Island Interconnected System. However, Nalcor Energy Marketing (NEM) is currently buying energy from off-Island sources to allow its reservoirs to fill for supply during the coming 2019/20 winter. Further, Hydro is considering the need for additional capacity, meaning that the Holyrood TGS, the generator that the MFP was supposed to replace, may need additional capital investments to maintain its availability to operate for several more years. Hydro is also considering capacity assistance agreements with Island Industrial customers, and may even need to build new peaking generation, e.g., combustion turbines, in order to ensure reliable power supply to the Island Interconnected System.

Therefore, rate mitigation might not end with the substantial $12.7 billion price tag of the MFP. The unavailability, late in-service dates and questionable reliability of its various components may add significantly to the cost of supply to Island Interconnected customers even before the first kWh of energy is delivered to the Island Interconnected System.

Issue #4: Reorganization of Hydro and Nalcor Power Supply (Reference Question 1, options for reducing the impact of MFP costs)

Liberty indicates that following completion of the MFP consideration should be given to combining Nalcor Power Supply and Hydro into a single organization which according to Liberty would result in operational cost savings of $12.7 million annually (Liberty Phase Two Final Report, page 6). We agree. The provincial power system is small relative to other jurisdictions and there is no justification for having two small organizations doing much the same business. There appears to be little work for Nalcor Power Supply following completion of the MFP, and the work that they have identified appears to be well into the future and could just as easily be handled by transferring the Nalcor Power Supply unit to Hydro.

Doing more electricity development, such as Gull Island, has been set forth by Nalcor to justify maintaining Nalcor Power Supply. The public has little appetite for more construction by Nalcor given the weak rationale, the huge cost overruns and poor project management of the MFP. In addition, any sizeable electricity project would have to be export-oriented but, according the evidence filed by Liberty and Synapse, the wholesale prices in export markets are expected to remain low for the foreseeable future. The public cannot afford another project like the MFP – in fact, ratepayers cannot afford the MFP as witnessed by the need for this Reference and the Muskrat Falls Inquiry. On top of this, Hydro's own load forecast for the Island system shows that load growth will remain flat, or even decrease, over the next decade through 2030.

There is simply no further need to build further hydroelectric projects in the Province for domestic use. Even if large-scale industrial customers come to the Province, such industrial customers should be required to pay for their own capacity or be willing to pay the incremental cost of new capacity. Domestic ratepayers should not bear the burden of subsidizing any further building given what has occurred.

In short, the arguments of Nalcor and its Consultant, Power Advisory, that Nalcor Power Supply remains a viable and needed entity beyond commissioning of the MFP are not convincing. After Muskrat Falls is in service, Nalcor Power Supply will have a staff with little to do. Liberty had full access to Nalcor staff during its study while Power Advisory appears not to have interviewed even a single Nalcor or Hydro staff member in person during the course of its study. In response to a question asking if Power Advisory had actually gone in and talked to people in various areas of Hydro or Nalcor to understand the functions they perform and how they inter-relate, Power Advisory responded "*We didn't get to that level of detail*" (October 9, 2019 transcript, page 67). Nalcor provided all staffing information requested by Liberty over the course of its study so the disconnect between Nalcor's figures and those of Liberty appears to rest with Nalcor rather than Liberty. Any utility is likely to believe that staff reductions are unnecessary because to say otherwise would be an admission by management that it is not doing its job.

Issue #5: Nalcor Energy Marketing (Reference Question 1 on options for reducing the impact of MFP costs on electricity rates)

Hydro marketed surplus recall power from Churchill Falls until handing the marketing activity over to Emera. NEM ultimately was formed and took over Emera's marketing activities for the recall power. With the completion of the Maritime Link, it is also handling external purchases and sales and that will extend to the exports associated with MFP when it is completed. It is understood that currently Hydro oversees NEM's power sales and its external purchases for the Island Interconnected System. This is appropriate given that Hydro is responsible for supply adequacy and reliability on the Island Interconnected System. It is also understood that Hydro determines what the power requirements are, and once NEM has found a buyer or seller of the power excess or deficiency, Hydro confirms the sale or purchase before the transaction is completed. Historically, Hydro has managed hydro-generation reservoirs as part of its strategy to ensure capacity and energy are supplied reliably and at low cost to Island Interconnected customers. The reservoirs are now being managed by Nalcor with staff who were transferred to Nalcor from Hydro (October 11, 2019 transcript, pages 42, 47, 48, 73 and 74). In the future, NEM will be charging Hydro a fee for its marketing activities, much like any other marketing organization. The nature and format of this fee has not yet been determined.

While NEM appears to provide value, it is not clear why this value has to be provided outside of Hydro and outside of PUB oversight. Neither is it clear if an outside entity might be in a position to provide greater value than NEM. Liberty states (page 43 of its Phase Two Final Report) "*However, the use of a market solicitation would provide a qualitative and quantitative means to identify whether there exist alternatives better designed to manage NEM operating costs, transaction risks, and, most significantly, the size of margins produced to offset Hydro revenue requirements. Absent outreach to the market, it will not be possible to determine whether those with very substantial North American market experience (particularly in the continent's northeastern region) will find the Province sufficiently economically attractive.*" In effect, Liberty is saying that Hydro should sound the market to determine if other marketers might be available who can provide greater value to Island Interconnected customers. Promoting competition among marketers might prove effective in ensuring NEM does provide value to Island Interconnected customers.

If it is determined that NEM does provide value to Island Interconnected customers following the market sounding, NEM should be moved to a unit/subsidiary within Hydro and be subject to "*light-handed*" regulatory oversight by the PUB. Regulatory oversight might include an audit every one or two years by an independent entity with expertise in power marketing activities to determine if NEM continues to meet its mandate and provide optimum value to Island Interconnected customers. Further, management of the reservoirs should be transferred back to Hydro since these reservoirs are assets that have been paid for and maintained by Island Interconnected customers consistent with the regulatory process, and owing to their importance in providing low-cost and reliable electricity supply.

With NEM transferred to Hydro, the dubious rationale for continuation of Nalcor Power Supply after completion of MFP is further weakened.

Issue #6: Revenues from Export Sales (Reference Question 1 on options for reducing the impact of MFP costs on electricity rates)

Liberty states that if Island Interconnected customers are required to pay all costs of the MFP, they should likewise receive all benefits of export sales from the MFP. This is a fair approach and consistent with regulatory practice elsewhere. However, if Island Interconnected customer rates are based on the cost of supply including purchases of power from off-island sources at market prices, Nalcor, and its shareholder can choose to manage power sales from the MFP in any way it desires and costs and revenues can be handled outside of the regulatory process similar to Churchill Falls generation. Nevertheless, such Nalcor revenues should serve as a source for funding rate mitigation.

If any portion of the costs of Muskrat Falls generation and the LIL and LTA assets are to be included in the revenue requirement for the Island Interconnected customers, only the capital and O&M costs of the portion being used by Island Interconnected customers should be included in the cost of service and all such costs should be subject to regulatory oversight by the Board in spite of how the financial instruments for the MFP are drafted.

Issue #7: Legal framework of Provincial Electricity Sector (Reference Questions and direction given to the Board to consider the power policy of the Province as set out in the Electric Power Control Act, 1994)

The purpose of the PUB is to provide independent and informed regulatory oversight of the power sector. There has been far too much interference by Governments in the electricity sector, in particular, relating to the MFP itself and OC2009-063 establishing Hydro's return at the same level as Newfoundland Power's return, an entity that is in a much different business with a much different risk profile, much different capital structure and much different performance. OC2009-063 should be rescinded and Hydro's return should be determined by the PUB based on the merits of Hydro's General Rate Application. In addition, Hydro's debt-equity ratio should be reviewed in the normal GRA process. In that regard Liberty indicated that maintaining Hydro's equity ratio at its current 20% rather than going to its target of 25% would free up cash-flow for mitigation in the first years after Muskrat Falls in-service. That seems advisable in the current circumstances where Government is seeking available rate mitigation sources.

More broadly, the structure of the Province's power sector should be subject to a detailed review upon commissioning of the MFP. As Newfoundland Power states (October 15, 2019 transcript, page 12) "*It's Newfoundland Power's view that once Muskrat Falls is operational and these important questions are resolved, then the Government should undertake a comprehensive reassessment of how the sector is structured and operated, and the assessment would be aimed that ensuring the sector delivers least cost reliable service to customers over the long term.*" At this point in time the successful commissioning of the MFP is the top priority, so the review should be conducted post MFP commissioning. The review should include an examination of legislation that grants Hydro the exclusive right to sell power in the Province, and restructuring the market to incorporate an element of wholesale competition.

The Province should also pursue formation of a Regional Transmission Organization among Eastern Canadian Provinces including the Island of Newfoundland, New Brunswick, Nova Scotia, Prince Edward Island and potentially Quebec as a means for reducing the cost of operations and ridding the region of current rate pancaking practices which reduce competition and increase the cost of supply.

Issue #8: Capital Spending (Reference Question 1 on options for reducing the impact of MFP costs)

Liberty found "*striking*" the nearly $0.5 billion dollars in five-year capital spending that has been identified by Hydro and Newfoundland Power. Hydro states (October 10, 2019 transcript, page 73 "*we are taking the steps to send a very strong signal internally to all of our asset-holders, is that we are interested in lowering the annual capital spend and then we're going to have to prioritize better than we ever have before.*" They go on to say (same reference) "*we want to invest less and we want to look very closely at the cost and reliability balance.*" What is not clear is the specific actions that are being taken and when, or why this hasn't been a priority all along given that Muskrat Falls rate impacts have been known for many years. There is no evidence of any capital spending cuts in Hydro's 2020 Capital Budget Application. Neither is there evidence of any spending cuts in Newfoundland Power's 2020 Capital Budget Application. Because of this, the Consumer Advocate has requested a Technical Conference on both Capital Budget Applications.

The 2020 Capital Budget Applications of Newfoundland Power and Hydro combined exceed $200,000,000. In the past these expenditures have been approved through so-called paper filings and requests for information and, with few exceptions, without a technical conference or a hearing. This process and procedure is unacceptable. The Board has a responsibility to the ratepayers of the Province given the magnitude of these expenditures. In short, the ratepayers require Capital Budget approval standards commensurate with the expenditure of $200,000,000; there should be either a hearing and/or a technical conference which is open to the public and transparent.

Both Hydro and Newfoundland Power have continued to plan Capital Budget expenditures without regard to the purpose of the Reference or the Liberty Consulting Group comments, or to the reality in which ratepayers find themselves following Muskrat Falls commissioning. Newfoundland Power's 2020 Capital Budget Plan boldly states (section 1.0 – Introduction) [14]:

> ***Newfoundland Power's 2020 Capital Plan provides an overview of the Company's 2020 capital budget, together with an outlook for capital expenditures through 2024. The 2020 Capital Plan is consistent with the Company's obligation to provide least-cost reliable electrical service to its customers as required by the Public Utilities Act and the Electrical Power Control Act, 1994.***
>
> ***Newfoundland Power's 2020 capital budget totals $96,614,000. The Company's annual capital expenditure for the next 5 years is forecast to average approximately $116 million.***
>
> ***The Company's 2020 capital budget reflect the capital investment required to maintain the condition of the electrical system.[15] Consistent with previous capital budgets, it focuses primarily on***

[14] Newfoundland Power's 2020 Capital Budget Plan, Section 1.0

[15] In its report titled *Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power*, December 17, 2014, page #S-2, Liberty Consulting Group found that Newfoundland Power's effective maintenance and capital programs, that appropriately recognize the age of its assets, have contributed materially to improve reliability.

expenditures related to plant replacement. Expenditures on plant replacement account for 60% of total expenditures over the next 5 years.

For many years the Consumer Advocate has been concerned about the significant level of capital spending by Hydro and Newfoundland Power and has expressed the same at Capital Budget and General Rate hearings. Some of our concerns relate to a failure to prioritize projects or to state which are optional or subject to deferral and other concerns focus on an inability to determine if the appropriate amount of labour is being capitalized versus expensed as an annual operating cost, if the approach to transmission line maintenance/repair is appropriate, and importantly, if reliability improvements are consistent with the value customers place on such improvements.

Liberty suggested that the PUB consider placing a cap on capital spending in light of the significant rate increases on the horizon. Liberty states (October 4, 2019 transcript, page 97) "*A cap is a good start and then you look at the one off from there*". The Consumer Advocate supports a cap on capital spending but notes that Newfoundland Power is opposed to such caps as documented in the October 15, 2019 transcript (pages 44-45) "*Newfoundland Power doesn't believe a cap is in the best interest of our customers. All of our capital projects that we put forward are consistent with the power policy of the Province; that is to provide least cost reliable service, and I think that we do that and we provide – we justify all those capital projects on those basis to the Board and we think that that works for our customers.*" In spite of the enormous burden the MPF project is placing on their customers it appears Newfoundland Power believes it is business as usual. This is why the Consumer Advocate favours the imposition of an immediate cap on current and future capital spending.

Alternatively, performance-based regulation ("PBR") could be pursued which would place a cap on rates, thus providing an incentive for the utility to cut costs in order to improve profit margins. The rate cap in a PBR mechanism replaces the need for a cap on capital spending as it incentivizes the utility to prioritize its projects, carrying out only those projects necessary to meet its regulatory obligations relating to such things as reliability, safety and the environment. In order to ensure that a utility does not cut costs too aggressively, the PUB would monitor its performance in areas that are of importance to customers such as reliability and customer satisfaction to ensure there is no deterioration in service. Following the regulatory term which is typically 3 to 5 years, the rate cap is reviewed by the PUB, and the benefits of any programs that the utility has implemented to cut costs and improve efficiency are returned to customers through an adjustment to the rate cap for the subsequent regulatory period.

Fortis (Newfoundland Power's shareholder) has distribution companies that are subject to PBR in Ontario, Alberta and British Columbia (October 15, 2019 transcript, page 49). According to the Enerknol-Wood Mackenzie Power and Renewables June Market Report, "*PBR has now been used or considered in 19 states and the District of Columbia since 2015*. PBR is used extensively in both Canada and the United States, and is particularly relevant in a mature setting such as that Newfoundland Power finds itself in with stable, and perhaps declining, sales.

Any PBR scheme should be reviewed and approved by the Public Utilities Board as it has the necessary expertise, information and processes in place to decide the appropriate mechanism for the Province. A cap on capital spending and PBR may both require a change in legislation.

The Consumer Advocate does not support PBR for Hydro because it is a crown-owned utility with social obligations, and has less of a profit motive than a privately-owned entity such as Newfoundland Power.

Following commissioning of the MFP, a spending cap may be a desirable approach for regulating Hydro's capital spending in the post MFP era.

Issue #9: Rate Design (Reference Question 1 on options for reducing the impact of MFP costs and whether it is more advantageous to maximize domestic load or exports)

The Consumer Advocate understands that Hydro is in discussions with Island Industrial Customers and Newfoundland Power on wholesale rate design. We also understand that Newfoundland Power is undertaking a rate design review for its customers. The Consumer Advocate supports these studies and plans to be a part of the discussions.

The Consumer Advocate recommends that all potential rate designs be considered in these studies, including seasonal, time-of-day rates as suggested by Synapse, declining/inverted multi-block rates, real-time pricing, surplus power rates (i.e., discounted rates when there are power surpluses), etc. The price signal in all cases should promote efficiency by reflecting marginal costs while taking into consideration Bonbright's other rate design criteria; i.e., recovery of the revenue requirement, fairness, simplicity, ease of understanding, etc.

Like Synapse, the Consumer Advocate supports electrification efforts such as electric vehicles and conversion of oil heating systems to electric heat pumps. However, we are generally not in favour of promotional rates because they tend to favour customers who are better off financially. Neither is there any guarantee that those customers receiving the promotional rates would put the electricity to better use than those who are not so favoured. However, we are open to promotional rates in certain situations but they must not be less than potential export prices and such promotions have to also benefit non-participating customers. Further, they must not be given for electricity consumption that would have taken place anyway, and should not interfere in business competition. We believe that if rates are properly designed electrification will be pursued by customers without the need for promotional rates. Correctly designed rates promote correct consumption decisions by customers and send the correct signal to the market, forgoing the need for promotional rates. Promotional rates should not be pursued unless approved by the Board.

As already discussed, the Consumer Advocate supports electricity rates in the Province that reflect the cost of service. We believe this to be a legal requirement in the province. The MFP does not meet this criterion as its cost of power is far above the market price of electricity; i.e., a lower cost scenario than Muskrat Falls generation would be to purchase power from off-Island sources over the Maritime Link. As emphasized earlier in this submission, Island Interconnected customers should be charged only for the component of the MFP that they use, and the cost of that power should reflect market prices such as the price of power in the New England market or the average price of export sales of Muskrat Falls power.

Further, with respect to the need for rates to reflect the cost of service, it is important to understand that the rural rate subsidy is not related to the cost to supply Island Interconnected customers. The rural rate subsidy has been a long-standing regulatory issue. That subsidy is to help pay the cost of electricity in isolated diesel communities, which are served by Hydro, as well as Hydro's rural island interconnected and some Labrador customers. At present, the cost of the subsidy is embedded in the rates of Newfoundland Power's customers and Hydro's rural interconnected Labrador customers. Our position is that the rural rate subsidy should be paid by the Provincial Government. The rural rate subsidy places a significant burden on the interconnected customers. Since the rural rate subsidy represents a Government social program, the Government should pay for it, as was the practice before 1990. This would also encourage Government to push Hydro to consider alternatives to diesel generation in the isolated rural systems. It is also consistent with cost-of-service regulation.

The Federal Government has announced a new plan to ensure indigenous communities that currently rely on diesel are powered by clean reliable energy by 2030. The plan states that the Federal Government will work with indigenous communities to move forward with investments that will see all indigenous communities off diesel and instead powered by clean renewable and reliable sources of energy such as hydro, wind and solar. There is no reason that this plan could not be extended to all diesel communities in this province.

Finally, if the revenue requirement for the Island Interconnected System results in a significant rate increase, for example greater than 10% in one year, then consideration should be given to spreading the burden over multiple years to avoid rate shock. This issue also relates to the timing of rate mitigation and General Rate Applications. It would be irresponsible and would simply exacerbate an already difficult and uncertain situation for Island Interconnected customers if Hydro or Newfoundland Power were to propose rate increases for Island Interconnected customers in a General Rate Application before all rate mitigation issues are resolved. The priority for all parties is to work together on rate mitigation resolution.

Recommendations

1) **The PUB have continued responsibility for determining Island Interconnected customer rates on the basis of regulatory principles reflecting the lowest cost of supply consistent with reliability and socio-environmental considerations.**

2) **Rates recover the revenue requirement based on the true cost of supply – not the cost of the MFP. In this regard, the revenue requirement recovered in rates based on the capital and operating costs of facilities used to supply the Island Interconnected System plus any power purchases from off-Island sources needed to supplement supply. Off-island purchases might be made from Muskrat Falls or other sources, whichever is lowest cost. Presently, off-Island purchases appear to be much lower cost than the MFP.**

3) **If any portion of the costs of Muskrat Falls generation and the LIL and LTA assets are to be included in the revenue requirement for the Island Interconnected customers, only the capital and O&M costs of the portion being used by Island Interconnected customers should be included in the cost of service and all such costs subject to regulatory oversight by the Board.**

4) **The difference between the costs of the MFP and the revenues generated from cost-based Island Interconnected customer rates be made up from sources of funds for rate mitigation.**

5) **Sources of rate mitigation funds include, but not be limited to, the sources identified by Liberty, and other sources such as Nalcor oil/gas revenues, privatization of Oilco and elimination of sinking fund requirements in the agreements with the Federal Government. Revenues from**

greenhouse gas (GHG) credits or renewable energy credits associated with sales of hydro-power from the MFP also be considered as a source of funds for rate mitigation.

6) **The need for rate mitigation does not end with the $12.7 billion price tag for the MFP. The unavailability, late in-service dates and questionable reliability of the various components of the MFP will add significantly to the cost of supply to Island Interconnected customers. Rate mitigation initiatives need to consider all costs brought on by the MFP including those unknown at this time.**

7) **Following completion of the Muskrat Falls project, Nalcor Power Supply and Hydro be combined into a single organization within Hydro to achieve savings in operating costs estimated by Liberty to be about $12.7 million annually.**

8) **A market sounding be undertaken to determine if there are other marketers willing to manage Hydro's off-Island sales and purchases and if they are able to provide greater value than NEM.**

9) **If NEM is shown to provide optimum value, NEM be transferred as a separate business unit into Hydro and subject to light-handed regulatory oversight by the PUB (e.g., annual audits).**

10) **Management and control over the hydro-generation reservoirs be transferred back from NEM to Hydro and subject to regulatory oversight by the PUB.**

11) **If Island Interconnected customers are required to pay all costs of the MFP, they should likewise receive all benefits of export sales from the MFP. However, if, as we recommend, Island Interconnected customer rates are based on the cost of supply including purchases of power from off-island sources at market prices, Nalcor and its shareholder can choose to manage power sales from the MFP and costs and revenues can be handled outside of the regulatory process. Such revenues should be considered as a source for funding rate mitigation.**

12) **Government involvement in the power sector be limited to policy only. Financial and operational aspects of the electricity sector be the responsibility of the PUB, with the PUB taking into consideration Government policy in renderings.**

13) **OC2009-063 be rescinded and Hydro's return on equity should be determined by the PUB.**

14) **Hydro's debt ratio be maintained at its current value of approximately 20% for the foreseeable future including after the MFP is commissioned unless the Board orders otherwise following due process.**

15) **Following commissioning of the MFP, there be a detailed review of the structure of the Province's power sector including an examination of legislation that grants Hydro the exclusive right to sell power in the Province, and restructuring the market to incorporate an element of wholesale competition.**

16) The Province pursue the formation of a Regional Transmission Organization among Eastern Canadian Provinces as a means for reducing the cost of power sector operations.

17) The PUB implement a capital budget spending cap. Such a cap be placed on capital spending until after the MFP is fully commissioned and until a rate mitigation plan has been fully implemented.

18) It is recommended that in 2020 a performance-based regulatory scheme be designed and implemented for Newfoundland Power as approved by the PUB following due process.

19) The Consumer Advocate does not support performance-based regulation for Hydro. A cap is the preferred approach to control Hydro's capital spending in the Muskrat Falls era.

20) Rate design reviews undertaken by Hydro and Newfoundland Power and all potential rate designs be considered by the parties in studies and hearings before the PUB.

21) There is general support for electrification efforts with limited support for promotional rates. If rates are properly designed customers and the market will respond correctly to the price signal in any case.

22) Since the rural rate subsidy represents a Government social program, the Government pay for the subsidy consistent with previous practice.

23) Our Government pursue with the Federal Government in 2020 efforts to replace diesel communities to ensure these communities come off diesel and are powered by clean, renewable and reliable sources of energy such as hydro, wind and solar.

24) Neither Hydro nor Newfoundland Power propose rate increase applications for Island Interconnected customers before rate mitigation issues which are the subject of this Reference are resolved.

25) The Public Utilities Act be amended as required to ensure the above recommendations are jurisdictionally compliant.

26) Finally, there is urgency. These recommendations and those of Liberty and Synapse and all other rate mitigation initiatives require immediate attention if ratepayers are to receive the benefits of rate mitigation prior to the commissioning of the Muskrat Fall Project. Timelines are required and much work will have to be undertaken in the next 12 months at the Public Utilities Board, Natural Resources, the Government and the Legislature to bring rate mitigation initiatives to a successful completion.

Dated at St. John's, Newfoundland and Labrador, this 1st day of November, 2019.

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