IN THE MATTER OF the *Public Utilities Act*, RSN 1990, Chapter P-47 (the "Act"): and

IN THE MATTER OF a General Rate Application (the Application) by Newfoundland and Labrador Hydro 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 Industrial Customers; and under Section 71 of the Act, changes in the Rules and Regulations applicable to the supply of electricity to Rural Customers.

IN THE MATTER OF the *Electrical Power Control Act,* 1994, SNL 1994, Chapter E-5.1 (The "EPCA") And The Public Utilities Act, RSNL 1990, Chapter P-47 (The "Act"), As Amended; And

IN THE MATTER OF An Investigation And Hearing Into Supply Issues And Power Outages On The Island Interconnected System.

REQUESTS FOR INFORMATION

THE NEWFOUNDLAND AND LABRADOR PUBLIC UTILITIES BOARD

GRK-PUB-1 to GRK-PUB-20

GRAND RIVERKEEPER LABRADOR INC. (GRK)

Issued January 12, 2015

GRK-PUB-1

Re: Supply Issues and Outages Review ("the Liberty Report"), s. 6 (Conservation and Demand Management), pp. 27-30

Preamble: The referenced section indicates:

- that NP and NLH offered CDM programs from 2009 through 2013 that were largely successful (p. 28). It appears, however, that these programs ended in 2013;
- That the 3-year Industrial Energy Efficiency pilot program started in 2010, and was closed to new applicants in 2013 (p. 29);
- That a consultant found that the program had met or surpassed all 2012 participation and savings goals, and made recommendations to improve the programs;
- That Hydro and NP "Hydro and Newfoundland Power plan to retain a consultant to conduct a study of the current potential for conservation and demand management potential, in order to identify 'remaining achievable, cost-effective, electric energy efficiency and demand management potential.' The planned study scope includes modeling baseline consumption, identifying technology options, and assessing economical potential for all customer sectors. Hydro anticipates consultant selection by November 2014 and report completion by the end of 2015."
- That Hydro and NP "plans to retain a consultant in the fall of 2014 to review the marginal study last undertaken by an outside firm in 2006. The Company anticipates that a more comprehensive, 2015 marginal costs analysis will follow this initial review."

Please describe the steps which are normally required for the design, approval and implementation of new CDM programs, once the potentials study referred to in the fourth bullets of the preamble and the marginal costs analysis referred to in the fifth bullet have been completed.

GRK-PUB-2

Given Liberty's long experience with these matters, please provide its best- and worst-case estimates of the time required for carrying out these steps.

GRK-PUB-3

In Liberty's experience, is it normal for a utility to wait until its CDM programs have ended before initiating the types of studies mentioned in the preamble to GRK-PUB-1? If not, please describe a typical timetable for carrying out these types of studies during a 5-year CDM program.

GRK-PUB-4

Is Liberty aware of any explanation provided by NLH or NP as to why these studies or other planning efforts leading to a new CDM program to replace the one that ended in 2013 were not undertaken earlier? If so, please provide details.

GRK-PUB-5

Re: Table 2.8 (p.30 of Liberty Report)

Please indicate if the MWh savings indicated in the right-hand section of the table are cumulative, or represent year-by-year incremental savings. If the figures provided are incremental, please provide a table indicating cumulative MWh savings, with projections for the persistence of these savings for the period 2014-2019. If the figures provided are cumulative, please explain why the savings for Windows and Thermostats fell from 2012 to 2013, and why there was no persistence of the very substantial industrial savings achieved in 2012.

GRK-PUB-6

Please provide incremental and cumulative MW savings resulting from Hydro and NP's CDM efforts 2009-2013.

GRK-PUB-7

Re: Liberty Report, Conclusion 2.21 (pp.32-33)

Citation:

The focus to date has arisen through a transparent process that appears to have general stakeholder acceptance. Programs have had a reasonably well designed scope, results have been subjected to regular stakeholder scrutiny, and outside experts have reviewed both their design and implementation. Cost-effective savings have been achieved.

Thus, without being critical of efforts that have been undertaken ...

Please explain in detail Liberty's reasons for describing the process to date as "transparent".

Does Liberty have any constructive criticism to formulate with regard to the process by which 2009-2012 CDM was developed and carried out, that could be useful in preparing future programs?

GRK-PUB-8

Re: Liberty Report, Conclusion 2.21 (pp. 33)

Citation:

Thus, without being critical of efforts that have been undertaken, it is clear that a focus on demand (versus energy) reduction has particular importance. A variety of efforts planned for this upcoming year recognize the need to add that focus. We underscore the importance of promptly and comprehensively pursuing them.

Preamble: It appears that Hydro and NP do not have any experience with respect to CDM programs focussed on demand reduction.

Can Liberty provide any additional guidance to Hydro and NP that would assist them in developing aggressive and cost-effective demand reduction CDM programs as quickly as possible?

GRK-PUB-9

Re: Liberty Report, Conclusion 2.22 (pp. 33-34)

Citation:

2.22. History suggests that Hydro will consult with Newfoundland Power on the design and results of the coming analyses related to conservation and demand management, but it is not clear that Newfoundland Power will share "ownership" of the process.

Personnel from Newfoundland Power consider Hydro to have been open in discussing planned work, in sharing results, and in addressing use of analytical information in past program design and evaluation. It remains clear, however, that Hydro's system planners retain responsibility for program design, the range of assumptions analyzed, the nature of the analyses, selection of resources to assist in performing analyses, oversight of study and analytical work, and final reports.

••••

One can conclude that it is not necessarily certain that Hydro and Newfoundland Power (and perhaps other stakeholders as well) will agree on the range of schedule and cost assumptions that should be employed. Scope and methodological viewpoints may differ as well. The same is true of views about the time required to complete work that must serve as the foundation for assessing conservation and demand management potential. Full visibility into study work and management of those performing it and vetting results also has importance in our view. Therefore, while Liberty commends efforts to engage Newfoundland Power in discussions and while Liberty would expect Hydro to consider to listen carefully and respond to input, <u>a better</u> approach would be to approach the work not from the perspective of "ownership" by Hydro, but of "partnership" between the two and transparency of the work and its results to the Board and to all stakeholders. (underlining added)

Preamble: It appears that Liberty is recommending a joint decision-making process (a "partnership" approach) between Hydro and NP, as contrasted with a unilateral decision-making process implied by the "ownership" approach.

Please confirm or correct the statement in the preamble.

Does Liberty have any concerns that the partnership approach might result in a slower timeline to implementation than an ownership approach, given the time that may be required to negotiate and approve the partnership agreement, or the time required to resolved differences of opinion between the two companies? If not, why not? If so, please provide guidance as to how this approach can be best handled so as to minimize any such delays.

GRK-PUB-10

Re: Liberty Report, Conclusion 2.22 (pp. 33)

The added dimension of demand management this year, and in particular the very high importance that needs to be placed on it, <u>make work this upcoming</u> year different and particularly critical. For example, the range of assumptions made about the Muskrat Falls schedule and costs may have great bearing on what programs make sense from a reliability and cost perspective. The work to be undertaken must

proceed with dispatch despite <u>what Liberty would observe to be uncertain estimates of</u> <u>project schedule and cost</u>. Liberty does not make this observation on the basis of examination of actual plans or progress, but on the basis of what decades of experience says about megaprojects in the utility industry. (underlining added)

Please clarify to what "work this upcoming year" reference is made, which is "particularly critical".

Please elaborate on other information which is currently unavailable, in addition to the example provided of the range of assumptions made about the Muskrat Falls schedule and costs, which are also essential for this critical work to be carried out.

GRK-PUB-11

Re: Liberty Report, Conclusion 2.22 (pp. 33); Conclusions 2.9, 2.10 and 2.11 (p. 31)

Citation:

- 2.9. Despite nearly 200 MW of additional generation and demand-side resources, the supply situation is expected to remain tight until the arrival of Muskrat Falls.
- 2.10. Additional new generation does not present a good option, unless new load materializes or availability declines.

2.11. Despite improvement initiatives in 2014, availability remains a major challenge.

It represents the only remaining, practicable option for improving supply reliability in the near- term. Hydro needs to pursue availability aggressively, in conjunction with exploring demand- side potential.

2.22

... <u>The particular importance of supply considerations over the next few years, as they</u> relate to demand management, centers upon the question of pay-back periods for potential demand-side options. A program designed to reduce demand may not look effective if one assumes that Muskrat Falls and the link to the Island Interconnected System arrive as scheduled. The question in that event becomes how long a delay it would take to make a program a net effective contributor to supply adequacy. Clearly, a meaningful answer to that question requires a robust range of potential in-service dates for new capacity.

Preamble: The underlined sentences in Conclusion 2.22 in the Citation suggest that demand reduction programs should be justified on economic grounds, because their costs are lower than the costs a that they avoid. However, in the context described in Conclusions 2.9, 2.10 and 2.11, it would appear that demand reduction may be essential in order to maintain adequate supply reliability.

Please confirm or correct the statements in the Preamble.

Insofar as demand reduction is found to be the only practicable means for maintaining the desired level of reliability, please provide guidance as to the appropriate standards by which proposed programs should be judged.

GRK-PUB-12

Re: Liberty Report, Conclusion 2.22 (pp. 33)

Citation:

For the longer term, even if reserve adequacy questions are <u>mooted</u> for an extended period, analysis of demand management programs require a sound set of assumptions about what costs to customers who pay for electricity will be avoided for each block of capability that is avoided. It would appear that such an analysis requires at least two key inputs: (a) thorough knowledge about the <u>contract structure</u> that determines what costs and benefits will come to customers paying for demand management in utility rates, and (b) what range of cost estimates for new capacity should be used to apply that structure in calculating those costs and benefits.

Please clarify:

- The first sentence, and in particular the sense given to the term "mooted"; and
- To what contract(s) the term "contract structure" is meant to apply.

GRK-PUB-13

Re: Conclusion 2.5

Citation:

2.5. Liberty continues to consider the P90 forecast as the preferred planning base. (*Recommendation Nos. 2.4 and 2.5*)

Liberty believes the P90 forecast is the appropriate planning base, but Liberty also recognizes that the key issue is the extent to which decision-makers consider the P90 effect in their deliberations. Hydro's reports in this regard include the P90 case. Hydro and the Board must consider the P90 case in any consideration of supply availability. This transparency of inclusion by Hydro of the P90 case will make use of P50 as the base irrelevant.

In saying that the Board must "consider the P90 case in any consideration of supply availability," does Liberty mean that Hydro should simply plan for the P90 case? If not, in what way should it be "considered"?

Does Liberty's recommendation to use the P90 forecast as the planning base apply only to weather, or also to other aspects of its load forecast?

Please support your answer making reference to practice by other utilities.

GRK-PUB-14

Re: Conclusion 2.8

Citation:

The increased focus on reserve levels, as opposed to a sole focus on LOLH, represents a significant step forward. The consideration of the P90 forecast also comprises an important improvement. Hydro's approach, which involved a degree of "wait and see," in the past did not turn out well between 2012 and 2014. As that recent experience demonstrated, the strategy has significant risks and can get dangerous in a hurry. Given the addition of significant new capacity with Muskrat Falls in the near future there is little need to add new generation now <u>although reserves are still too low</u>. However the strategy must be enhanced vigilance over load growth and unit availability, <u>such that timely action can be taken if current reserves are jeopardized</u>.

Preamble: The Conclusion seems to suggest that, while reserves are "too low", they are not low enough to require "timely action" at the present time.

Please confirm or correct the statement in the Preamble.

How much lower would reserves have to be before "timely action" would be required?

If reserves are found to be too low to provide reliable service prior to integration of Muskrat Falls power, what economic criteria are to be applied to determine whether or not the most cost effective additional measures (whether additional generation, improved availability or demand reduction) should be undertaken to improve those reserves?

GRK-PUB-15

Re: Liberty Report, Conclusions 2.9, 2.10 and 2.11 (p. 31)

Citation:

- 2.9. Despite nearly 200 MW of additional generation and demand-side resources, the supply situation is expected to remain tight until the arrival of Muskrat Falls.
- 2.10. Additional new generation does not present a good option, unless new load materializes or availability declines.

2.11. Despite improvement initiatives in 2014, availability remains a major challenge.

It represents the only remaining, practicable option for improving supply reliability in the near- term. Hydro needs to pursue availability aggressively, in conjunction with exploring demand- side potential.

Has Hydro demonstrated that availability improvements sufficient to improve supply availability to acceptable levels can be obtained quickly and at reasonable cost? If so, please provide references. If not, on what basis do you conclude that this is in fact a "practicable option"?

GRK-PUB-16

Re: Liberty Report, Conclusion 2.11 (p. 31)

On what basis should options to a) improve resource availability and b) reduce demand, be compared?

GRK-PUB-17

Re: Recommendation 2.16 (Liberty Report, p. 36)

Citation:

2.16 Complete planned demand management analysis on a Hydro/Newfoundland Power jointly scoped, conducted, and developed basis and report to the Board a structured cost/benefit analysis of short term program alternatives by September 15, 2015. (Conclusion No. 2.21)

The most essential elements of this recommendation are:

- Ensuring, in the event that Hydro and Newfoundland Power do not agree on a range of new capacity timing and cost assumptions to consider, that the work planned incorporates a range of assumptions that is sufficiently broad to encompass those of both entities.
- Ensuring methods and perspectives broad enough to provide for a full identification and analysis of the short-term costs and benefits (both economic and with respect to improving reserves) of options for the period leading up to the introduction of Muskrat Falls

Can Liberty propose a timetable to allow Hydro and NP to develop a suitable framework, jointly scope, conduct and develop a demand reduction plan, and report it to the Board by September 15, 2015?

GRK-PUB-18

Re: Recommendation 2.16 (Liberty Report, p. 36)

Citation:

• Shortening what we understand to be Hydro's estimation of the time for completing required foundational work and generating a list and a structured evaluation of potential demand side options for the short term.

Please clarify and specify:

- what is included in the "required foundational work";
- Hydro's estimation of the time required for it (providing references when appropriate);
- Liberty's estimation of the time required for this foundational work.

GRK-PUB-19

Re: Recommendation 2.16 (Liberty Report, p. 36)

Citation:

- Shortening what we understand to be Hydro's estimation of the time for completing required foundational work and generating a list and a structured evaluation of potential demand side options for the short term.
- Making the study and analytical process and its resulting options and the analysis of them transparent and available to the Board and stakeholders as soon as possible, in order to expedite the process of instituting any short term demand side options that may prove beneficial.

Please clarify and specify:

- Hydro's estimation of the time required to generate a list and a structured evaluation of potential demand side options for the short term (providing references when appropriate);
- Liberty's estimation of the time required to generate a list and a structured evaluation of potential demand side options for the short term;
- Liberty's estimation of the time required before short term demand side options found to be beneficial can be implemented.

What steps does Liberty recommend that the Board take in order to reduce these delays?

GRK-PUB-20

Re: Recommendation 2.16 (Liberty Report, p. 36)

Citation:

• With respect to longer term options, ensuring that work now proceeds with as clear an understanding as possible of the costs avoided by and the benefits made available to customers who bear responsibility for new capacity costs and the costs of conservation and demand management costs, in order to provide a sound foundation for determining what measures and programs should be instituted.

Please specify what is meant by "short term" and "long term" in the context of Recommendation 2.16.

Can Liberty propose a timetable for steps to be taken by Hydro, by NP and by the Board in order to ensure that these resources are made available as promptly as possible?

DATED at Montreal, in the Province of Quebec, this 12th day of January, 2015.

Charles O'Brien

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