

# MUSKRAT FALLS INQUIRY PUBLIC CONSULTATION



# Summary of the Public Consultation Sessions Regarding the Muskrat Falls Project

Submitted to the Commission of Inquiry Respecting the Muskrat Falls Project

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September 6, 2019

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# Background to the Public Consultation Sessions

The Commission of Inquiry Respecting the Muskrat Falls Project was established by the Government of Newfoundland and Labrador on November 20, 2017, in accordance with Part I of the *Public Inquiries Act*, 2006. Justice Richard LeBlanc was appointed Commissioner.

The Inquiry has been divided into three phases, with the third phase ending in July 2019. During the three phases, the Commissioner has heard from 134 witnesses over 140 days of testimony. Given the importance of this issue, the Commissioner wanted to ensure that members of the public who did not have official standing at the Inquiry, had an opportunity to voice their concerns and options and share information as part of the Inquiry process.

The Commission invited Memorial University of Newfoundland's Harris Centre to organize and moderate two public events, one to be held in St. John's and the other in Happy Valley-Goose Bay (this latter community located adjacent to the Muskrat Falls hydroelectric dam). In discussions between the Commission and the Harris Centre, it was determined that the first event would be held in St. John's on July 30<sup>th</sup> and the second in Happy Valley-Goose Bay on August 8<sup>th</sup>.

The deliverable would be a report that summarized the presentations made by the members of the public at these two events, as well as comments submitted to an online platform, to be submitted to the Commissioner for his consideration.

# Organization of the Events

It was decided early on that the public consultation should be as accessible as possible. As such, it was decided to advertise the two events widely to inform the public about the opportunity to comment. The two sessions would be webcast live so that persons not living in either of the two communities where the sessions were being held could still observe the proceedings; the video of these webcasts would then be archived on the websites of the Harris Centre and the Commission so that they could be streamed at leisure.

In addition to the two public meetings, the public would also be provided the opportunity to submit written contributions via the Harris Centre's website. This would allow persons who were not available or who did not wish to speak in public the opportunity to submit their thoughts to the Commission. It would also allow speakers to complement their oral presentations with diagrams or more written information.

The appendix includes the press release announcing the sessions and the text of a newspaper ad that appeared in local newspapers, as well as the website to which interested persons were directed to register for the events. This website also included a summary of the terms of reference that guide the Inquiry.

There were a number of factors that made it difficult to estimate the number of participants who would attend the two public meetings. On the one hand, there is a great deal of interest and emotion surrounding the project, and it was felt that the sessions would attract a high number of participants. On the other hand, there are many people who, while concerned and knowledgeable about the project, expressed the fear that an appearance in public might put their careers or connections at risk. Others might have strong

opinions but might not feel qualified to comment on an issue as complex as this one. And still others might be reluctant to miss out on a pleasant evening during our too-short summer.

However, an estimate was necessary in order to plan for the size of the room, the length of the session, the number of handouts, catering, etc. An estimate was also necessary to decide on a time allocation to each speaker; this was critical information for the invitation, as speakers needed to know how much time they had to deliver their message. Speakers in St. John's were allotted 5 minutes to make their presentation and those in Labrador (with fewer speakers) were allotted 10 minutes. A count-down clock was projected on the screen to ensure that speakers adhered to their time allocation.

The three conditions by which the speakers were asked to abide were:

- 1. That the presentation address issues that fell within the terms of reference of the Commission.
- 2. That the presenters did not have standing at the Inquiry or had not had the opportunity to appear as witnesses at the Inquiry.
- 3. That the presentations respected the time allocations (5 minutes in St. John's and 10 minutes in Happy Valley-Goose Bay).

Persons who wished to submit a written comment could do so on the Harris Centre's website. Submissions would be limited to two thousand words (4 typewritten pages) or 10 pages of diagrams, or a combination of the two, not to exceed 10 pages.

Consistent with the Inquiry's operating procedures, entry into the public sessions was subject to screening by the Sheriff's Office.

# Registration for the Public Events

For the St. John's session on July 30<sup>th</sup>, 20 people had requested to speak and another 21 had signed up as observers. On the evening of the event, six of the speakers did not attend; given that there was time remaining, an open invitation was issued to anyone in the room who wanted to speak, and another two individuals took the opportunity, for a total of 16 presenters in all. There were approximately 60 persons in attendance at the event.

For the session in Happy Valley-Goose Bay on August 8<sup>th</sup>, nine persons had requested to speak, and another person had registered as an observer. At the event, all nine showed up, and three more asked to speak, and were allowed. There were about 30 observers at the event.

Twenty-five persons submitted written comments on the Harris Centre's online commenting platform.

The two public sessions were well covered by the media. The Telegram covered the event in St. John's, while the Happy Valley-Goose Bay event was covered by CBC-TV's *Here and Now, APTN News* and *The Telegram*.

### What We Heard at the Public Sessions

### St. John's Session, July 30, 2019

This evening event took place in the Emera Innovation Exchange, located at the Signal Hill Campus of Memorial University. The video of the session is archived on the Harris Centre and Muskrat Falls Inquiry websites and can be viewed at the following link: <a href="https://youtu.be/Oxuc6RMrmlU">https://youtu.be/Oxuc6RMrmlU</a>.

The evening featured sixteen speakers, who are listed in the order in which they spoke:

Kerri Neil

2. Lea Movelle

3. Travis Inkpen

4. Steven Wolinetz

5. Greg Malone

6. Elizabeth May

7. Bob Hallett

8. Stephen Tomblin

9. Lori Lee Oates

10. Zheng Li

11. Donald Hutchens

12. Steve Parsons

13. Michelle Worthman

14. Don Blackmore

15. John Seary

16. Gerry Skinner

Given that there was some overlap and repetition among some speakers, the comments below are not attributed to individual speakers but instead have been gathered into themes.

It became clear from the presentations that there is a great deal of anger, frustration and fear associated with the high cost of the Muskrat Falls project, with its impact on the Provincial debt and with the higher costs of electricity to consumers. Some of the speakers indicated a loss of faith in the leadership of the province, whether directly associated with the project (Nalcor, the Provincial Government and the Federal Government) but also with big business, investors and other "elites", citing greed, incompetence and negligence. One speaker asked if a forensic audit had been done for the project; another felt that those responsible for putting the province in the situation it currently finds itself should be prosecuted or sued.

Another noted that the way in which the project was structured privatized the benefits and socialized the risks. A properly run public utility would not have exposed the public to the level of risk associated with the Muskrat Falls project. In fact, the way the project was structured seemed to increase the risks, for example, by hiring a company with no experience of construction in a Northern climate, or by hiring another company under investigation for international corruption.

One speaker asked whether the board of Nalcor had signed off on the project. If they did, did they have all the facts? Does the communication trail between the senior executive and the board of Nalcor clearly show that the board was aware of the costs and the risks associated with the project before signing off on it? In any event, a couple of speakers questioned why the senior executive of Nalcor received generous severance packages and/or bonuses — to loud applause from the audience. Another speaker stated that it was time for the public utility to hire public servants instead of executives who require financial incentives to perform their duties.

Several speakers spoke about the impact of methylmercury on fish harvested in the Churchill River and Lake Melville, an important source of food for local residents. The issue of the safety of the North Spur was also mentioned by a few speakers. Some speakers related these two topics to a disrespectful

relationship between government and business on the one hand and Indigenous groups on the other: stating that concerns as important as water pollution and the security of downriver habitations were not listened to by Nalcor and government, referencing that some opponents of the project were arrested and jailed for their activism. One speaker stated that the Federal Government should have done more to protect the interests of the Indigenous peoples of the region.

Several speakers also questioned the role of the Federal Government in enabling the project with the offer of a loan guarantee without which the project would likely not have gone forward.

Three professors from Memorial University's Department of Political Science diagnosed the same governance problem and offered three different perspectives on it. The problem, as they all see it, is a government executive that is unhampered by institutional checks and balances. The Premier at the time was allowed to side-step the Public Utilities Board (the main regulatory agency that oversees the electricity grid) in the absence of strong opposition in the provincial legislature.

Another decision of the government of the day was to prohibit other forms of electricity generation in order to transform Nalcor into a monopoly for electricity consumers in the province. One speaker related how he had been working on developing wind generation for several years, investing millions of dollars, only to be told by the then-newly elected government that he would no longer be eligible for the necessary approvals to connect to the province's electricity grid.

A speaker argued that the government at the time (headed by Premier Danny Williams) and subsequent Conservative governments brooked no dissent: "You were either with us or against us." The speaker expressed that the government and Nalcor behaved arrogantly and denigrated the concerns brought against the project. But, according to the speaker, this brings up an important point: concerns were brought forward by informed citizens, many with extensive expertise in energy policy, electricity regulation and government operations, and these concerns were covered by the province's media, but they did not gain traction with the public. And so, the speaker continues, while Nalcor and various governments should indeed shoulder the blame for the way the project turned out, the public should remember that it did not question its leaders and insist that they justify their decision in light of the concerns expressed by the critics of the project. In particular, they continued, the public should have questioned the wisdom of entering into a project, one of whose main objectives was to settle a historic wrong with a neighbouring province. The objective facts of the project should have carried more weight than the desire to show Quebec that Newfoundland and Labrador wouldn't be bullied.

One professor noted that the Muskrat Falls Project is a local example of poor judgement exercised by governments all over the world. The conditions that led to Muskrat Falls are symptoms of failing democratic institutions that are occurring on a global scale, they explained. Political leaders exhibit a lack of transparency in decision-making, keep poor records of decisions made, do not hold decision-makers accountable and simply go through the motions of seeking public input into decision-making.

Several speakers alluded to the impact that the higher electricity prices will have on consumers, especially seniors and low-income households; they will have to make tough decisions among rent, food, electricity and other necessities. Speakers suggested that the Provincial Government's rate mitigation strategy is not transparent and seems highly dependent upon the Federal Government – with an election coming this fall. A couple of speakers stated that the high cost of electricity – and the surrounding negativity about the economy – is encouraging young people to leave the province.

Another noted that, back in the 1960s, the Government of Quebec insisted that the electricity from the Upper Churchill hydroelectric project would not be wheeled freely through that province, but instead had to be sold to Hydro Quebec, who would then resell it to the Central Canadian and American markets. This led to Hydro Quebec earning most of the profits from the sale of Labrador electricity. The Federal Government had refused to intercede in the dispute, even though they had interceded to push through the construction of a pipeline from Alberta to Ontario a few short years earlier. At the time, the Federal Government had not wanted to antagonize Quebec, where talk of separation was rife. One speaker suggested that the Government of Canada could remedy this historic wrong by assuming the interest of the Muskrat Falls debt and by transferring to the province 3 cents per KWH, both payments to be made until 2041, for a total of approximately \$1.3 billion.

A couple of speakers adopted the motto: "If life gives you lemons, make lemonade!" One commented that the project makes Newfoundland and Labrador 94% reliant on renewable energy (although an earlier speaker had stated that large hydroelectric projects like Muskrat Falls are not considered "green" by the US Environmental Protection Agency because of the heavy use of cement, clearcutting of forests and flooding that releases methane and methylmercury). Another outlined the opportunity to transition to electric cars; with an abundance of electric power, the province could become a world leader (like Norway) in moving away from the internal combustion engine to the battery-powered car. This would require some investment on the part of the Government of Newfoundland and Labrador; however, the speaker also noted that no one in the government has so far engaged in this discussion.

### Happy Valley-Goose Bay Session, August 8, 2019

This evening event took place at the Lawrence O'Brien Arts Centre. The video of the session is archived on the Harris Centre and Muskrat Falls Inquiry websites and can be viewed at the following link: <a href="http://csg001-harmony.sliq.net/00307/harmony/en/PowerBrowser/HLSPlayer?url=http://csg001-live.sliq.net/00307-vod/definst/mf/2019-08-08\_MF.mp4/playlist.m3u8">http://csg001-live.sliq.net/00307-vod/definst/mf/2019-08-08\_MF.mp4/playlist.m3u8</a>

The evening featured thirteen speakers, who are listed in the order in which they spoke:

- 1. James Learning
- 2. Kirk Lethbridge
- 3. Robin Goodfellow-Baikie
- 4. Curtis Saunders
- 5. Beatrice Hunter
- 6. Eldred Davis
- 7. Linda Saunders-McLean

- 8. Overton Colbourne
- 9. Jamie Felsberg
- 10. Jerry Skinner
- 11. John Chase
- 12. Denise Cole
- 13. Diane Kirby

Given that there was some overlap and repetition among some speakers, the comments below are not attributed to individual speakers but instead have been gathered into themes.

Twelve of the presenters spoke on one or several of four themes:

The first referred to methylmercury in the water and to questions about the stability of the North Spur and accused the leaders of the project of trying to "poison" and "drown" the people of the region. Speakers expressed a lack of trust in Nalcor's studies as these have been challenged by independent

experts who are very knowledgeable about landslides and the effects of mercury on fish and humans. Local residents were not informed about the possible negative impacts of the dam; as one speaker said, "No one came to us and asked if they could poison us." There is a fear that methylmercury will affect children's ability to learn in school. One speaker stated that the province needs more stringent environmental regulations.

The North Spur is cause for concern and local people speaking at the event maintained that it is a real threat. The province says there is no need to worry but, as one presenter stated, "How can we trust the government when they betray us over and over?" Speakers expressed that Government has not proven beyond a reasonable doubt that the North Spur is safe and there needs to be effective monitoring of the river. One presenter also stated that, should the North Spur fail, residents would not have time to evacuate. Also, failure of the North Spur would render the dam useless.

The second theme addressed the discounting of local knowledge in favour of the findings of consultants from outside the region, whose knowledge of local conditions is considered inadequate by local residents. One speaker stated that the damming of the river has already made much local knowledge obsolete; it is no longer possible to predict the behaviour of the river – something which local residents could do with confidence until recently.

Another speaker spoke about the many landslides he had seen along the river, and how their frequency had increased since the construction of the Upper Churchill dam back in the 1960s. This brings into question the confidence that Nalcor has in the stability of the North Spur. He also stated that an aquifer surfaces just below the North Spur, creating a hole that is 40 metres wide and 70 metres deep, and that this adds to the instability of the structure.

Relevance of Indigenous knowledge was also raised as a concern. Indigenous peoples have always been researchers and they know a lot about their land, one speaker expressed. Throughout the Muskrat Falls project, hardly any Indigenous or local knowledge was incorporated into the planning for the project; despite locals attempting to freely give this knowledge, very little of it was accepted.

Speakers also noted that only one study done by the government and Nalcor has claimed to be peer-reviewed. This is in contradistinction to the reports of research done by independent outside parties (such as Sutherland at Harvard) that are all peer-reviewed to ensure they are unbiased. The speaker also noted that these reports are also more in-depth and more up to date than the studies done by the crown corporation.

The third theme consisted of the inability of local people to be heard by the authorities, leading many (as a last resort) to break the law which they considered to be biased in favour of the project proponents: Nalcor and the Government of Newfoundland and Labrador. According to some speakers, people who respect the law and love their land were forced to break the law in order to be heard by the authorities, and even then, they weren't listened to. The lack of success is creating guilt on the part of some, who fear that their children will one day ask them, "Why didn't you do more to protect us?"

One speaker claimed that ironically, the only reason that an Inquiry had been called is because of the resistance of Labradorians to the project. Even then, she hesitated to take part in this public session because the terms of reference for the study were limited to the economics of the project. But she added that "the economics" also includes the long-term negative impacts of the dam, such as to the health of locals and the environmental devastation.

Indigenous people make decisions based on next generations, not next elections. One speaker stated that the elected Indigenous leadership has also failed locals by making decisions without consulting their members. Several of the speakers praised the President of the Nunatsiavut Government for not accepting that Government's \$10 million share of the fund that had been set aside for the capping of the reservoir but that had remained unspent as the work had not been done.

The fourth theme was related to the loss of a way of life that was cherished by residents. Speakers indicated that in some cases, the river is essential to residents because it provides food security to persons on a low income. The frozen river is also a means of transportation in the winter; it is anticipated that the dam will change the process of ice formation and render the river unusable for travel in the winter. One speaker stated that she wanted to teach her grandson how to fish, to hunt seal and to pick berries, but she doesn't think that will be possible any longer.

Another presenter spoke about how a co-operative could be created by citizens to assume the debt for the project. More details about this particular presentation is included in Overton Colbourne's written submission to the consultation process.

## Summary of Written Submissions

The following provides a summary of the 25 written submissions to the Harris Centre. The full submissions follow the summaries.

A writer who has requested anonymity states that many people in Newfoundland and Labrador have limited knowledge of how public utilities operate in other North American jurisdictions, and therefore do not appreciate the extent to which the Muskrat Falls project offends key principles of utility regulation that exist to protect the ratepayer. The Muskrat Falls project exists only because government gave itself and its Crown utility a blank cheque to proceed, ostensibly motivated by public policy considerations that had little to do with delivering least-cost power to ratepayers. The 2012 amendments to the Electrical Power Control Act prohibit any third-party generator from competing with Newfoundland and Labrador Hydro ("Hydro") in the supply of electrical power; this provision effectively means that no third-party generator is permitted to compete with Hydro, regardless of how cheaply that third-party generator could provide power for provincial ratepayers. Logically, such statutory protections would not be required if Muskrat Falls represented the province's actual least-cost power option. It is not inconceivable that in 20 years' time, many North American homeowners will be able to produce much of their own power from small-scale wind and solar generation; there is a real possibility that distant large-scale generation projects like Muskrat Falls will become less critical to grid operation, and therefore less viable. Arguably, the timing for construction of a massive capital project that must be amortized over 70-100 years could not be worse. The province's load centre is located on the Northeast Avalon approximately 1,100 kilometres from Muskrat Falls, and the transmission line connecting the two crosses several climatic zones. If you tried to design a system to maximize the potential for weather-related disruption you would be hard-pressed to find one with more risk than the Muskrat Falls project. This begs the question whether the prudence of the Muskrat Falls project was considered from a reliability perspective.

Mr. Benjamin Turpin argues that hydroelectric projects are uneconomical in the current market, given the predominance of shale gas and oil in the United States. Furthermore, Muskrat Falls was approved despite a number of red flags that should have been heeded.

Mr. Gerry Skinner, President of Avalon Wind Power Inc., regrets that the Provincial Government rejected a formal proposal from an internationally recognized firm in 2003 to establish wind power generation to meet the Island's energy requirements, in order to reinforce the case for hydroelectric developments on the Churchill River. The locked-in cost to complete the Avalon Wind Power project, including a new transmission line to Holyrood and an overhaul of the Holyrood substation, would be \$4B today, much less than the estimated \$20B cost of building Muskrat Falls and paying the debt over a 57-year period. The taxpayers of this province will have to pay for this catastrophe and the individual/individuals that caused it will face no financial or legal responsibility for their actions.

Mr. George Murphy, a Member of the House of Assembly when the discussions about Muskrat Falls were taking place, recalls that there was plentiful information at the time that called into question the high oil prices that were being used to justify the need for hydroelectric power in the province. However, the Provincial Government did not follow up on this line of inquiry. Mr. Murphy further states that the approval of the Muskrat Falls project points to the failings of the House of Assembly. Issues should be fully vented through the use of standing committees of the House and there needs to be a new spirit of co-operation where evidence is weighed on its merits rather than along political lines.

Mr. Andy Wells, raises a number of issues and asks a number of questions:

- 1. Nalcor should be required to provide a revised Levelized Unit Energy Cost for the \$12.7B revised cost, the calculation of which is used to evaluate project economics for competitive projects.
- 2. Political leaders and Nalcor have attested that the economics of the project get better over time. But the reverse is true; the revenue structure represents a huge transfer of costs to future rate-payers and imposes a huge financial burden on the future to the benefit of the present.
- 3. The Maritime Link was promoted as an insurance policy for the Island, in case the Labrador-Island Link was interrupted. However, there was never any research done by Nalcor to ascertain that power would be available to flow from Nova Scotia in such an eventuality.
- 4. Surplus power from the Upper Churchill project was promised to meet peak demand (in the winter months) on the Island. Yet that same surplus power had already been committed to mining developments in Labrador, and therefore not available to the Island.
- 5. The Inquiry must consider whether there was a deliberate attempt by Nalcor to artificially inflate the costs of the Isolated Island System (to make MF look better in comparison) beyond what was necessary for efficient system operation. Included in IIS costs was \$680M for the costs of scrubbers to be installed at the Holyrood Generating Station, improvements which were not deemed necessary.
- 6. Why did Nalcor not pursue the use of run-of-river hydro integrated with wind and peak capacity expansion of Baie d'Espoir and Cat Arm in 2011?
- 7. What will be the impact of higher electricity rates on consumption? By how much will it decrease, and by how much will rates need to increase to meet revenue requirements?
- 8. Stan Marshall, CEO of Nalcor, stated in 2018 that the Holyrood Generating Station or equivalent would be required for "a few years". What will happen in a few years to make the HGS no longer

- needed? What was the rationale for the MF project and the expenditure of some \$14B if HGS or equivalent remains a necessity?
- 9. What will be the net increase in capacity after MF comes online and the HGS is closed? Taking into consideration the recall power that is not available from Labrador, the answer could be zero.
- 10. Why was Derrick Sturge, the Vice-President (Finance) for Nalcor, out of the loop during discussions on financing the project?
- 11. Why was Astaldi selected as the main contractor for the project after it had been disqualified for a similar project in British Columbia?
- 12. Nobody in a position of responsibility or influence at the provincial level asked Fortis for an opinion on the project. Fortis did not offer an opinion. Why did Fortis, parent company to Newfoundland Light & Power, not express its skepticism of the project in public, although it did so in private? Had it done so, it would have precipitated a much-needed public discussion about the project.

Mr. Phil Helwig wants Nalcor to explain how they interpreted the Canadian Dam Association Guidelines and whether the particularities of the North Spur justified a higher safety factor than recommended under the guidelines; he would like Nalcor to reveal the value of the minimum safety factor calculated along the critical failure surface for the final geometry of the structure. He also asks the Commission to rule that Nalcor's assessments of the "Isolated Island" and "Muskrat Falls" options were biased in favour of the latter. Finally, he asks that the Commission emphasize the need to adhere to the principles of good practice in power systems so that engineers, public servants, politicians and the public at large better understand these processes.

<u>Tom Beckett</u> asks whether Commissioner Leblanc is completely satisfied with the stability of the North Spur. If he is not, will he place a stop-work order on the filling of the reservoir until the stability issue is resolved to the Commissioner's satisfaction?

Mr. Tom Fowler asks Commissioner Leblanc to consider that the Project Management Team (PMT) likely did not have the competency to prepare a business case, given that it was composed of experts in the hydrocarbon sector, not the hydroelectric or public utility sector. The PMT publicly distanced themselves from the Project Risk Assessment, explaining that it was not a document or process that was key to decision making. One of the benefits of a Project Risk Assessment is that it forces the PMT to distribute the decision making around risk so that the departmental leads, at a minimum, have an opportunity to document their concerns. Large publicly-financed projects need to be managed based on risk, with increased management oversight for high-risk projects, with the bar raised especially high for a public utility. Comments from the provincial government, particularly the Minister of Natural Resources, show the depth and breadth of the chasm that separated what Nalcor knew and what they were sharing with those responsible for regulating them. The government of Newfoundland and Labrador needs to be more holistic in its considerations of cost and benefits: financial and environmental, but also including the relationship between Labrador and the Island.

A writer who has requested anonymity argues for a more rigorous selection process for public servants. Since it is these government employees who provide continuity when cabinet ministers are shuffled or when the governing party becomes the opposition, it is critically important that all employees have been properly vetted through a fair and open job competition process. People who lack appropriate experience and training today become the high-ranking bureaucrats of the future, making decisions about projects that could be the next Churchill or Muskrat Falls. When political and personal connections are given more weight than actual training and ability, yet another boondoggle is just around the corner.

<u>Dr. Stephen Tomblin</u> argues that a weak democracy in Newfoundland and Labrador does not provide a sufficient check to the executive branch of government, and that this situation is likely to remain into the foreseeable future. Citizens are spectators only. Unless or until democratic/Federal reform occurs and the dominant power, capacity, and autonomy of the executive is reined in and contested, bad decisions and risky behaviour, as exemplified in the Muskrat Falls project, will continue.

Dr. Steven Wolinetz asks why we were rich for only a short time? What went wrong? Recent testimony indicates that it was not only Nalcor and the people who led the project, but also civil servants, who failed to keep notes, as well as ministers and premiers, who failed to ask questions and could no longer remember advice that they received. But the public also bears responsibility; no one wanted to engage the counter-arguments or criticize a strong leader who was going solve everything and, in the process, settle ancient scores. Settling ancient scores is not a sound basis for public policy. Politicians and civil servants need to do much better, not only assessing policies, but also in shaping debates so that the public can participate in them, and the public must demand more so that leaders cannot get away with implementing policies or projects that squander public money.

A writer who has requested anonymity argues that, going forward, no governing party should be allowed to interfere in power system design or reliability decisions. The infrastructure is too expensive and too important to have decisions based on jobs and winning elections. The PUB involvement and an independent scientific approach to meeting demand is the only approach to building a robust power system. As well, electricity should not be a source of revenue generation for government but should be provided as cheaply as possible to ratepayers. The revenue, all of it, should be used to pay for power infrastructure and keep costs to consumers low.

Mr. Dave Lough makes the case that in Labrador, the Churchill River is viewed as a great historic and special place that is an integral part of a deep and spiritual attachment to the land. But from the outside it is viewed as a remote uninhabited river that is solely a provincial economic asset. He asks, "Would residents in Western Newfoundland stand quietly by if the Province decided to dam the Humber River?" Mr. Lough would like the Inquiry to recognize those who for no personal gain provided good critical analysis and advocacy and acted in the public interest: the 2041 Group, the Muskrat Falls Concerned Citizens Coalition, and the Labrador Land Protectors (some of whom were arrested for protesting). He states that the Province demonstrated it cannot be an owner and developer of a major project, and at the same time have the responsibility for managing the natural and social environment. He concludes with the hope that the Inquiry will help recommend a new direction for future major project management which will include a higher value placed on environmental stewardship and real partnerships with Indigenous organizations.

Ms. Robin Goodfellow-Baikie asserts that the noise and activity associated with the Muskrat Falls development will have a deleterious impact on the caribou population of Labrador. Industrial noise prevents caribou from detecting ambient sounds, such as the approach of predators, and this will cause stresses upon the population, likely reducing its size. Caribou are an essential staple of the Innu diet and their absence forces the Innu to rely more on store-bought foods, leading to higher incidences of diabetes, cardiovascular disease and cancer. Ms. Goodfellow-Baikie also asks why the option of wind power on the Island was not considered and worries that residents of Central Labrador will end up losing the preferential electricity rates that they have enjoyed for decades; Labradorians feel that they have given up more than enough.

Mr. Matthew Barrett states that it will take years for the impacts of methylmercury to reveal themselves. What will monitoring of the chemical solve? What can actually be done once mercury levels have risen to an unsafe level? What will the \$30 million allocated to NunatuKavut and the Innu Nation do in 30 years when the mercury levels have increased to an unsafe level?

Mr. Gabe Gregory states that "rate mitigation" is a dishonest term being used to yet again mislead the NL public that there is some magical way to reduce the burden of the Muskrat Falls project — unless the Government of Canada intervenes to reduce costs to the NL ratepayers/taxpayers. Taking public money to subsidize the costs of Muskrat Falls means higher deficits or reduced public services on healthcare, education, etc. The capital investment has to be written down to its real market value; the public needs an objective assessment as to what additional revenue can be generated from higher electricity pricing without driving down demand, and this would then form the basis for a market-based assessment of the value of the investment and the determination of how much of the capital cost has to be written off.

Mr. George Power asks if there is any recourse in law against the Government of Canada for not having done its due diligence before agreeing to provide a loan guarantee to a project that was fraudulently promoted and that has put the province's financial situation in jeopardy.

Vaughan Hammond states that small and medium-sized businesses can expect an increase in their electricity rates of as much as 32-36%. A large number of SMEs will find it difficult to lower their electricity use by switching to another reliable energy source or adopting conservation measures. SMEs already subsidize electricity consumption by residential customers; SMEs currently pay between 8% and 9% more for electricity than the cost of providing them with service. From the small business perspective, rate or tax increases will likely be passed on to the consumer (who is, for the most part, also a ratepayer and a tax-payer). The Canadian Federation of Independent Business therefore recommends that: (1) The provincial government provide a full, transparent and independent analysis of rate mitigation in Newfoundland and Labrador. (2) The Public Utilities Board review its prior decision to have SMEs subsidize electricity consumption by residential customers. And (3) government reform the legislative and regulatory framework to provide greater oversight on large development projects in hydroelectricity. Government can immediately rescind the exemptions provided to the Lower Churchill development project as well as the exemptions adopted specifically for the Muskrat Falls development project and ensure that Nalcor is more transparent and can be held more accountable by the public.

A writer who requested anonymity suggests three ways that a significant reduction of electricity rates can be achieved by exploiting the future value of electricity produced by Churchill Falls (that is two-third owned by Nalcor) after 2041. The first would resolve the winter peaking of Muskrat Falls and water management issues. It would consist of "borrowing" electricity from Hydro Quebec and returning it (with interest) after 2041. This would be estimated to save Nalcor about \$100 million per year by allowing the immediate closure of the Holyrood Generating Station. The second would be to sell electricity to Hydro Quebec but only deliver the power after 2041; revenues totalling about \$200 million per year would be generated beginning immediately, but the electricity would not be delivered to Quebec until after 2041. The third way would be to sell some equity in the Churchill Falls project that would take effect only in 2041. This third option may not be necessary if the first two are successful.

Mr. Overton Colbourne proposes that the powerhouse at Muskrat Falls be sold for \$5B, leaving a debt of approximately \$7.7B, close to the original estimate of \$6.2B, which should be repayable as originally proposed. The powerhouse would be purchased by a Co-op, whose 5,000 members would each contribute \$100,000. This money could come from RRSP annuities converted into shares in the Co-op (the approval

of the Federal Department of Finance would likely be required for this conversion) or from other sources. The deal can be structured such that it is neutral to shareholders as well as to governments (i.e., shareholders do not lose out on investment income and governments collect the same amount of income tax).

Mr. William Brown believed until recently, based on his limited knowledge of the various contractual obligations that had been made concerning the different parties involved, that there were "no negative financial attributes" in existence. But learning certain details of those contracts, he has found that such was not the case and that there were negative financial attributes in existence. However, he has great confidence that, if these facts became known to the participants involved, they would be quite willing to modify the contracts to be less negative and afford an opportunity to yield a positive overall result for all involved.

Ms. Fatima Hammond makes three points: (1) Labradorians, many of whom depend upon the land for their livelihoods, will be negatively affected by methylmercury poisoning. (2) Persons living on low incomes in the province will suffer hardships because of the high electricity rates. (3) The people who are responsible for creating these hardships should be prevented from benefitting from government contracts in the future and fines should be levied against them and their businesses.

Mr. Paul T. Dunphy states that someone must be held accountable for the unacceptable behaviour that led us down a path of paying more than twice what was estimated for this project. Penalties must be imposed on those that reaped huge financial gains at the expense of the taxpayers of this province and that does not rule out claw-back of severance and fees for service that are above a reasonable rate of compensation for work performed.

Mr. Keith Hollahan's message reads, in its entirety, "I would like to personally thank those responsible for Muskrat Falls for the wonderful legacy that has been left to the taxpayers of NL."

Mr. Winston Fiander applauds the Commission of Inquiry Respecting the Muskrat Falls Project and argues in favour of a similar commission to explore the state of the province's fishing industry.

### **Full Written Submissions**

Comments have been lightly edited to promote clarity of the text where necessary.

### An author who has requested anonymity

Many people in Newfoundland and Labrador have limited knowledge of how public utilities operate in other North American jurisdictions, and therefore do not appreciate the extent to which the Muskrat Falls project offends key principles of utility regulation that exist to protect the ratepayer.

In the writer's opinion, the Muskrat Falls project exists only because government gave itself and its Crown utility a blank cheque to proceed, ostensibly motivated by public policy considerations that had little to do with delivering least-cost power to ratepayers. Muskrat Falls was built for the wrong reasons, and without appropriate regard for the impacts on ratepayers.

The Regulatory Compact

Regulated utilities serve a unique role in our society and hold privileged positions. They generally operate monopolies, and have an obligation to provide safe, reliable and affordable power in exchange for the opportunity to recover their costs and earn a fair return on invested capital (the "Regulatory Compact"). Ratepayers generally don't have a choice where they purchase their energy, rather they are forced to buy from the local monopoly utility; essentially a captive market. Oversight by an independent regulator is therefore essential to balance the various interests represented in the Regulatory Compact, and to protect the ratepayer.

To understand why Muskrat Falls ever came to be, one should consider the statutory framework that the Government of Newfoundland and Labrador ("GNL") created to facilitate it. In particular, 2012 amendments to the *Electrical Power Control Act* generally prohibit any third-party generator from competing with Newfoundland and Labrador Hydro ("Hydro") in the supply of electrical power. This provision effectively means that no third-party generator is permitted to compete with Hydro, regardless of how cheaply that third-party generator could provide power for provincial ratepayers. Even if a third-party could generate and sell power at a fraction of the cost of Muskrat Falls power, the GNL prohibits this from occurring.

Logically, such statutory protections would not be required if Muskrat Falls represented the province's actual least-cost power option. What this statutory protection effectively means is that the province's ratepayers will pay for Muskrat Falls regardless of whether others can provide lower-cost power. In the writer's opinion, this shows arrogance and a sense of entitlement on the part of government and the Crown utility and demonstrates contempt towards ratepayers. When wholesale electric power sells in parts of North America for as little as \$0.03 per kilowatt hour, a *carte blanche* statutory protection to force provincial ratepayers to purchase Muskrat Falls power at exorbitant rates is unconscionable if not negligent on the part of the GNL and its Crown utility.

### Technological change could further undermine Muskrat Falls feasibility

Outside Newfoundland and Labrador, the electric utility industry is rapidly changing. Distributed renewable generation and energy storage are becoming both more efficient and lower cost. It is not inconceivable that in 20 years' time, many North American homeowners will be able to produce much of their own power from small-scale wind and solar generation. Indeed, we will likely become less reliant on large-scale generation as the grid becomes more distributed, interconnected and automated.

There is a real possibility that distant large-scale generation projects like Muskrat Falls will become less critical to grid operation, and therefore less viable. Arguably, the timing for construction of a massive capital project that must be amortized over 70-100 years could not be worse. Particularly when our province has an aging population and net out-migration, reducing forecast peak load. These risk factors would be critical considerations in assessing the business case for any privately-owned generation project. However, with the statutory protections that were put in place to guarantee recovery of the unknown Muskrat Falls' costs, one wonders if these risk issues were even considered.

### Distant generation and reliability

Our province is known for its extreme weather. Global warming and climate change are expected to make our weather even more unpredictable. The province's load center is located on the Northeast Avalon approximately 1,100 kilometers from Muskrat Falls, and the transmission line connecting the two crosses several climatic zones. If you tried to design a system to maximize the potential for weather-related disruption you would be hard pressed to find one with more risk than the Muskrat Falls project. This begs the question whether the prudence of the Muskrat Falls project was considered from a reliability perspective.

### What can be learned from Muskrat Falls

It is too late to avoid the crippling financial cost of the Muskrat Falls project. Whether the province will sink or swim in this mess of our own making is yet to be determined. However, some very important public policy lessons can be learned from this fiasco. The writer urges the Inquiry to consider the following recommendations in its Final Report:

- The jurisdiction and work of the independent regulator must be fully protected from political interference – if the PUB had been allowed to do its job, it is quite likely the Muskrat Falls project would never have been built;
- The province should allow competition in electric generation to ensure true market-based lowest-cost power for ratepayers;
- Crown utilities should be held to the same regulatory scrutiny and standards as are investorowned utilities;
- In light of the excessive costs that will be imposed on provincial ratepayers, all reasonable steps should be taken to eliminate duplication and seek synergies in the generation, transmission and distribution system of the province.

All of which is respectfully offered for your consideration.

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### Mr. Benjamin Turpin

Can Romaine River shed light on Muskrat Falls? Tom Adams wrote: Hydro-Québec is constructing a comparable hydroelectric complex on the Romaine River, 350 kilometres closer to southern markets. It will produce about twice as much power but require a total investment less than the current estimate for Muskrat Falls. Romaine will start up before Muskrat Falls construction can begin in earnest. For all its competitive advantages relative to Muskrat Falls, Romaine will need a massive turnaround in electricity markets to break even. In response: Adams does not state that Romaine River is a sound business venture, he merely highlights areas where it is more economical and strategic than MF. The focus of the article is MF. This is why the man agreed to speak with you about MF. I took this phrase, "comparable hydroelectric complex", as a comparative reference to the same ecological, economic and strategic flaws existing in both projects. Both are examples of an unnecessary disregard for nature at the expense of the public, for the profit of our business, construction and political leaders. Both are examples of... My main point is that he has no better overall opinion of Romaine River than MF, merely states that Romaine River is better in the only ways we can (or are allowed to) measure. He does this to show how flawed MF is by contrast. He does not say Romaine River is good or better, just less flawed, but still uneconomically practical in the current market. What is his unsubstantiated point of view? Its not like he called in to proclaim...a little bit of my opinion on it. Usually I keep it to myself, but the end of the world is at hand, and I feel like going into the afterlife unburdened. You will likely not get a chance to read this anyway... This project will give us a debt of four billion dollars, plus cost overruns, ignoring the only independent, and unfavorable, review (The Joint Review Panel), dismissing the PUB outright, not even considering demand management technology to get us to 2041, nor natural gas options, yet taking 50-year demand projections on faith as well as the existence of a U.S.A. market which is satisfied by economical shale oil and gas. Muskrat Falls project is driven by the propaganda of employment promises (despite the lack of local skilled labour and longterm negative effect of temporary, high-wage jobs), environmental stewardship (without considering the GHG emissions created by watershed flooding and intense construction) and long-term stable electricity rates (predicted in times of global economic instability and accelerating change). The 2041 group will

never be right. Even if Cabot Martin was a time traveler, returning from 29 years time to tell us how we...Metis are trespassing on their own land, just like the Innu Nation did in Voisey' Bay in 1995... The government of Newfoundland and Labrador advertises that the power is in our hands. Is this a polite, energizing way of saying the average resident will be left holding the bag as our collective credit is...

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### Mr. Gerry Skinner

The Holyrood diesel plant now has 590 MW of fuel-fired power generation, consisting of 490 MW & 100 MW. If this system was running at peak capacity of 590mw for 24 hours a day during the 90 days in Dec, Jan and Feb, the total power production would come in at 1,274,440 MWH. The maximum amount of power that would be available from Muskrat Falls would not be suitable to match that.

The wind farm proposed for the Trepassey Barrens would have the ability to provide 1,557,608 MWH for the same three months, 283,208 MWH more than muskrat or the diesel plant.

Muskrat Falls or the Holyrood plant could not really accomplish the estimates that I referred to.

My calculations reveal a total cost to commission the Muskrat Falls project would not likely be less than \$20 billion. The locked-in cost to complete the Avalon Wind Power project, including a new transmission line to Holyrood and an overhaul of the Holyrood substation would be \$4B today. This same system was estimated to cost \$3B when it was originally presented in 2003 and did not increase until the USD increased to where it is today, at C\$1.31.

The Avalon Wind Power project would have been commissioned in 2007 and the cost per kwh to NLH would have been 4.5 cents. Imagine this: No up-front cost. No risk. No liability & A bonus of reducing GHG by 1.92 million tonnes annually.

Another tragedy: Enercon, one of the world's top wind turbine manufacturers from Germany was in the final discussions to consider opening a manufacturing plant in North America. This facility would require 2,500 full-time jobs. The facility would operate 24/7. Portland, Oregon, and Pincher Creek, Alberta, were being considered. After consulting with them they were going to consider NL.

I approached Ed Byrne, the Minister of Natural Resources for NL, and John Efford, the Minister of Natural Resources Canada, to travel to Germany with me and meet with Enercon. Efford & Byrne were excited but at the 11<sup>th</sup> hour, Ed Byrne advised me that he was not allowed to travel to Germany with John Efford.

Renewable energy (i.e., wind & solar power) has been completely rejected by the provincial government in NL since Nov. 23, 2003.

The taxpayers of this province will have to pay for this catastrophe and the individual/individuals that caused it will take no financial or legal responsibility for their actions.

The Avalon Wind Power theory was presented at the Holiday Inn during one of the public meetings that were held at various locations in the province. We were told by Minister Ed Byrne that when the final proposals were being considered, our complete financial presentation would be given a fair opportunity to compete. The Avalon Wind Power project proponent was never given the opportunity to present its case after the energy plan fiasco, obviously the decision was fate.

The most energy we could expect to arrive here in NL from Muskrat Falls would be 600 MW continuously and maybe as low as 74 MW if Quebec enforced its legal rights.

If NL Hydro were to receive 15 cents per kilowatt hour from the public and Newfoundland Light & Power, the monthly revenue could be as high as \$64,800,000 (-\$200,000/ month) or at 74 MW, \$7,992,000 (-57,008,000); the monthly payments would still be \$65,000,000 per month either way.

These figures are based on a 50-year amortization and do not include operating costs, basic maintenance, long term replacement of turbines, transmission lines, substations and transformers.

The power purchase agreement to buy the required energy from Avalon Wind Power project in 2008 would have been \$19,440,000 per month.

The savings would have been \$45,760,000 compared to the 600 MW from Muskrat or in the case of 74 MW, the savings would be \$102,568,000, plus all the operating costs, basic maintenance, long term replacement of turbines, transmission lines, sub-stations and transformers, cost of approx.,\$10,000,000, a very conservative estimate. The total savings would have been approx. \$60,000,000 or \$112,568,000 monthly. No up-front cost, no risk & no liability.

The revenue would represent approx. \$60,000,000, a 60% profit, or \$112,568,000 monthly, approx. 120% profit.

The current energy prices to the public could remain at approx. 11 cents per KWH and the profit would be reduced from \$36,000,000 per month to \$20,000,000 and doubled compared to the 74mw restriction.

New cost to purchase energy from the 900 MW Avalon Wind Power corporation in 2016 will increase from 4.5 cents to 4.95 cents. The power could start to flow in 2020. Every kilowatt could be utilized by taking all the government buildings, schools, universities & hospitals off oil-powered heating and retrofitted to electric heat. More millions of savings every year.

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### Mr. George Murphy

What I do remember of my time in the House of Assembly and centering around the Muskrat Falls debate was coming to the House with incontrovertible evidence on the effect of growing world domestic production of oil and gas, particularly from the US, that was damaging to any "theory" on where oil prices were going to be — the chief evidence that supported the economic case for Muskrat Falls. I have twenty-two years' experience in watching and researching the world oil markets on a consumer perspective that served me well in the House of Assembly at the time of the debate. What stands out to me is how many others out there also predicted a collapse in oil prices at the time that should have been heard. There was a mass of evidence out there that didn't support the oil price case that was used to support the Muskrat Falls project.

In 2008, the U.S President at the time, George Bush, stood before his people at the annual State of the Union address and announced a new policy to openly explore uncharted areas of the country and to allow new extraction methods previously outlawed. That chief method of extraction was "slickwater fracking", a process that allowed a higher production of oil and gas from shale formations. This same process worldwide now is referred to as allowing for "democratic oil", because any country out there has a degree of

shale underground, and hence, a secure supply of oil and gas. U.S domestic production of oil has grown since 2008, from 5.8 million barrels of oil per day, to today's production of 12.3 million barrels a day.

There never was any support for the oil case of US\$127 a barrel. And with natural gas also being a byproduct of drilling, there also was a major hit on the support for the \$12 per million BTU price as projected as a reason why to build Muskrat. Simply put, fracking itself in 2008 killed any prospect of Muskrat Falls working. Today, there is an abundance of natural gas in the US, so much so, that it is being flared off 24 hours a day. What isn't is being used to generate electricity with more natural gas electrical generation coming online every day, erasing what was the "gravy" from electrical sales in the US market. Natural gas has averaged roughly \$3 per million BTU over the last few years, making the Bruneau¹ case for electrical generation as an option the more promising project based on the need for power.

World oil prices and the case for their support of high prices has also been ground to dust. Oil markets have been irrevocably changed as a result of shale oil resources, so much so, that news from the Middle East that had a tendency to move prices simply doesn't anymore. My thought here is that in spite of the evidence as presented both publicly and in the House of Assembly at the time of the debate, is how much the government of the day actually ignored incontrovertible evidence that changed the arguments in support of Muskrat Falls that I presented. Government had its chance to review the changing world conditions for support of the project, but in the end, brushed it all under the rug. To say that they don't know the conditions were changing around world oil and gas and their availability and effect on prices simply can't be believed. Someone didn't do their job of analysis.

Finally...The sittings and proceedings of the House of Assembly have to change as a result of Muskrat Falls. They have to evolve. Not paying attention to presented evidence of Members of the House through the use of debate or the use of Standing Committees of the HOA had led to the problem we see today. There has to be a new spirit of co-operation where evidence is weighed on its merits rather than on its political lines, and the committee process has to be used more often when evidence suggests that it be done. The greater loss of Muskrat Falls may be the citizen's role in democracy, let alone his/her loss of choice over the price we all pay for electricity.

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### Mr. Andy Wells

### 1. LUEC - LEVELIZED UNIT ENERGY COST

In 2012 Nalcor estimated the total cost of Muskrat Falls (MF) at \$0.361 per kwh with a capital cost of \$6.2B. This number represents the total cost of project capital and operating costs spread over 50 years. It is used for comparative purposes to evaluate project economics for competitive projects.

Nalcor was requested for a revised LUEC with a capital cost of \$12.7B and responded on February 12, 2018 (PB-31-2018) that it "does not compute LUEC on an ongoing basis and therefore has no comparable LUEC for the \$12.7B cost update."

Simple extrapolation produces a revised LUEC in the range of \$0.70 per kwh. Nalcor should be required to provide a revised LUEC for the \$12.7B revised cost.

<sup>&</sup>lt;sup>1</sup> Dr. Steven Bruneau, in a public lecture hosted by Memorial University's Harris Centre in 2012, had made the case for offshore natural gas being a lower-cost option to the Muskrat Falls proposal.

### 2. PROJECT ECONOMICS GET BETTER OVER TIME

This is false. Revenue Requirements (RR) increase over time. The RR in the first full year of operation is approximately \$726M (NL Government Press Release – April 15, 2019). The RR rises to \$2.5B in 50 years as a consequence of the back-end-loading of the Power Purchase Agreement (PPA). The PPA covers the financing costs of the Muskrat Falls Dam and Labrador Transmission Assets.

RR	2021	2069
PPA	\$345M	\$2.2B
LIL	\$380M	\$0.3B
TOTAL	\$726M	\$2.5B

Note that under the PPA the RR for the MF/LTA increases by a factor of 6.4. The increasing RR is a result of the deferral of return on equity (ROE) and associated interest payments under the PPA from current to future ratepayers. This will result in a huge transfer of costs to future ratepayers. It is unfair. It imposes a huge financial burden on the future to the benefit of the present.

RR should be allocated fairly over time such that consumers do not pay in the future for present consumption. The PPA is an extremely regressive attempt to "sell" the project to present voters vs. future voters. It is also a requirement under the Federal Loan Guarantee. Those who have said that "it gets better," (Williams, Ball, et al.) should be called to account for misleading the public as to the reality of what we are facing as a consequence of the approval of the MF project.

### 3. RELIABILITY ISSUES

A number of Nalcor witnesses testified at the Inquiry that reliability on the system would be enhanced by the Maritime Link (ML). This is false. Here is the reality of what we are facing after spending some \$14B on MF.

An October 30, 2011, System Planning Report from Nalcor stated that; "the Maritime Link is equivalent to a 300MW generator with high availability for the Interconnected Island System. The Maritime Link is thus a critical feature for the operation and reliability of the LIL. Approximately 70% of the island power demand is on the Avalon Peninsula. Outages of one month or greater in remote areas are possible."

On December 1, 2018, an ATIPP request was filed with Nalcor requesting answers to the following questions and reports:

- 1. Provide the reports from Nalcor which show the 300MW of Nova Scotia backup power via the Maritime Link is available for NL if needed in an outage.
- 2. Has Nalcor asked Emera directly if they can supply the 300MW of backup power over the ML to NL if the LIL has an extended outage of over one month?

The Nalcor response contained in PB-946-2018 stated inter alia "there are no reports specifically addressing 300MW of backup supply via the Maritime Link in the event of an extended LIL outage." And "No, Nalcor has not asked Emera directly if it can supply 300MW of backup power over the Maritime Link in the event of an extended LIL outage."

A related issue concerns the matter of transmission capacity into the Avalon Peninsula for Nova Scotia power transmitted to NL by the Maritime Link. In response to an ATIPP request of December 15, 2018,

the Nalcor response (PB-947-2018) stated "please note that there are currently no records responsive to your request."

In response to an ATIPP request of October 29, 2018, as to why the matter was only under study now, the Nalcor response of PB-812-2018 stated "that with the retirement of generation on the Avalon Peninsula, the remaining capacity provided by the 230KV transmission network will not be adequate to supply peak loads on the Avalon Peninsula with the Labrador-Island Link bi-pole out of service. In such a scenario, load shedding would be required to ensure stable system operation." In other words, this means rolling black-outs in the event of a prolonged outage.

The following questions must be answered by the Inquiry if we are to get a full understanding of the monumental waste that is the MF project:

- 1. Why was the 300 MW included in the 2011 Report if there was no agreement or discussion with Emera, their partner on the Labrador-Island Link, with respect to the provision of same?
- 2. How was it possible that the System Planning Department did not know that there was no transmission capacity into the Avalon Peninsula for Nova Power?
- 3. Why did Nalcor witnesses (Clift, Martin and Harrington) testify that reliability would be enhanced with the Maritime Link?
- 4. Why did Harrington testify that Dark NL would not have happened if there had been a Maritime Link in 2014?

### 4. THE MISSING 76MW OF FREE POWER ON THE LABRADOR-ISLAND LINK (LIL)

Nalcor has stated that no-cost Churchill Falls recall power was assumed for 50 years (PB-30-2018) for 76MW to fill the LIL to 900MW capacity (MF 824MW plus 76MW recall.) However, this recall power is committed to economic development in Labrador. The Dunderdale Government promoted the availability of this power as attraction for prospective mineral development in Labrador (Dr. Wade Locke, Economic Impact Analysis of Iron Ore Mining in Labrador, September 23, 2012-CIMP). Clearly it was not available for both activities. And with the revival of economic activity in Labrador it will clearly not be available when needed for winter peak consumption. In response to an ATIPP request as to whether the cost to purchase the 76MW to fill the LIL has been costed in MF power rates, Nalcor responded in PB-972-2018 that "There is no public report which is responsive to your request." (December 12, 2018)

- 1. Why was the public not informed of the use of this free 76MW in the original MF estimate?
- 2. By what amount was the original estimate reduced as a consequence of the usage of this free 76MW?
- 3. How does Nalcor propose to replace this 76MW deficiency when it will be needed for winter peak demand?
- 4. Will Nalcor be forced to buy power from Hydro-Quebec to meet winter peak demand?
- 5. Will export sales be adversely impacted by this till now hidden supply deficiency?

### **5. INFLATED ISOLATED ISLAND COSTS**

The Inquiry must consider whether there was a deliberate attempt by Nalcor to artificially inflate the costs of the Isolated Island System (IIS) beyond what was necessary for efficient system operation. Included in IIS costs was \$680M for the costs of scrubbers to be installed at the Holyrood Generating Station (HGS).

Manitoba Hydro noted in an earlier report to the Public Utilities Board that with the switching to a low-sulphur fuel at HGS, it met provincial environmental standards for Sulphur Oxide and the \$680M was

therefore an unnecessary expense. However, in its Decision Gate 3 (DG3) CPW analysis for Nalcor (CIMP-P00121), Manitoba Hydro did not exclude this \$680M from its analysis.

Why did MH deliberately omit any reference to this unnecessary expense in its DG3 report which concluded that MF was the preferred option when compared to the IIS?

### 6. SMALL HYDRO/PEAKING CAPACITY/WIND/23KVBDE TL 267

A 1986 study identified a total of some 235MW in 30 locations (run of river hydro) as economically viable because it could be used as peak capacity addition to reservoirs at Bay d'Espoir (BDE) and Cat Arm (CA), which had been designed to handle a total of 222.9MW of peak capacity at a cost of \$329M. Integrating wind (a discontinuous energy source) with this additional peak capacity would contribute substantial cost saving on the system in fuel savings at HGS and would also contribute to more efficient hydraulic (water) usage as spilling water (money) would be avoided.

Stored peak hydraulic capacity can be used when peak demand is highest (i.e., winter) resulting in lower thermal costs or when the wind is not generating.

Additional further savings can be found in the application by NL Hydro for a new BDE TL to the Avalon filed with PUB on September 29, 2017. Originally filed on October 4, 2013, but subsequently withdrawn, it "can transmit 176MW of existing hydro generation to the Avalon where it is needed...allows for improved fuel efficiency at HGS...and reduces the potential for spills at hydro sites." (Report to PUB September 2011) This 176MW represents 22% of the rated capacity of MF at 824MW and at current cost estimates for the latter is a \$1.3B asset. This power is now wasted, i.e., "spilled" while fuel is being burned at HGS.

Why did Nalcor not pursue the use of run-of-river hydro integrated with wind and peak capacity expansion of BDE and CA in 2011?

Why did NLH delay construction of the 230kV BDE TL-267 to the Avalon?

What would the estimated cost vs. savings of these projects have been as compared to MF costs?

### 7. INCREASED CONSERVATION/RISING CUSTOMER RATES

Nalcor has forecast an island residential rate of \$0.2632 kWh (GRA-2017 GRA V.1.P1.11). It estimates that a reduction of 10% of energy demand would increase customer rates by a further 8%. The Inquiry must examine the implications of the relationship between conservation measures and consequent rate increases.

### 8. SYSTEM RELIABILITY/CLOSURE OF HGS/RATE MITIGATION

Stan Marshall, in testimony to the Inquiry on July 2, 2019, said, "The best way to deal with uncertainty over MF is to keep HGS operating for a few years." The Inquiry must document the additional costs to ratepayers every year that HGS remains open.

As well, Marshall must explain how concerns about system reliability will disappear after "a few years" and HGS is closed, as the issue of a prolonged outage is a permanent concern re: the LIL and do not disappear after "a few years."

The reality of our electric power system is that in order to ensure reliability on the system and avoid the drastic consequences of a prolonged outage, 400-600MW of reliable fossil fuel backup power is required on the Avalon Peninsula, in other words, an HGS or equivalent.

This begs an obvious question: What was the rationale for the MF project and the expenditure of some \$14B if HGS or equivalent is a necessity?

### 9. INCREASE IN CAPACITY

A final question arises in the context of the matters raised above. What will be the increase in capacity on the system when MF comes online? On February 15, 2018, Stan Marshall in a media report stated, "So replacing a thermal plant with a hydro plant. Net you're probably only getting about 100MW in terms of capacity." Together this thermal replacement and the 76MW deficiency on the LIL may well result in a zero increase in capacity. A simple question arises. What is the increase in capacity? The Inquiry must provide an answer. It may well be zero.

### 10. THE ABSURDITY OF THE MUSKRAT FALLS PROJECT

Nothing illustrates the absurdity of the MF project better than the statement by Derrick Sturge to the Inquiry (October 31, 2018) that he "was out of the loop on MF cost estimates." Mr. Sturge was/is Vice-President of Finance and was responsible for negotiations related to the Federal Loan Guarantee.

### 11. ASTALDI DISQUALIFIED IN BRITISH COLUMBIA

Nalcor AGM 2014 questions Astaldi:

- Q2 and is Nalcor aware that they did not qualify to bid on a hydro project in BC?
- A2. Astaldi Canada Inc. was selected as the contractor for this work based on the best technical
  execution plan, combined with the best commercial bid, which ultimately provides the best overall value for the Muskrat Falls Project and Newfoundlanders and Labradorians. Nalcor does not
  get involved in the procurement decisions made by parties that are not directly associated with
  the Muskrat Falls Project. Procurement decisions made by other parties in other jurisdictions are
  the sole business and discretion of those entities.

### 12. THE STAN MARSHALL BOONDOGGLE - TOO LITTLE TOO LATE

In 2015/2016 Marshall made a public statement that the MF project was a "boondoggle." This is too little too late. He knew right from the start of the announcement and associated approval process for the project, that it was a boondoggle.

I know from personal re-collection that this was the case, because on two occasions during this period I was told by Fortis executives that they thought it was a "crazy project" (2011/2012).

If Stan Marshall knew the "story" in 2011/2012, then so did Newfoundland Light & Power, and so did its President and CEO, Peter Alteen.

He also stated on July 4, 2019, "A Nalcor populated by utility experts would not have approved the Muskrat Falls project."

This is important because if the President of Fortis had taken a public stand against the project, it probably would have stopped the approval process immediately. It certainly would have precipitated a badly

needed public debate on the project. Instead, Fortis like all the other organizations which should have called for a robust public debate on the project were silent. Narrow corporate self-interest took precedence over manifest concerns regarding the cost implications of MF.

### 13. THE SILENCE OF THE LAMBS

Nobody holding elected office in the provincial government, the opposition, the civil service and Nalcor, thought it worthwhile to ask Fortis for their opinion on the economic viability of the Muskrat Falls project. Fortis is one of the foremost electric utility companies in North America which has increased its dividend some 43 years in a row. It is the most outstanding corporate success story in the history of this province. It is listed on the NY Stock Exchange. Nobody in a position of responsibility or influence at the provincial level asked Fortis for an opinion on the project. Fortis did not offer an opinion.

This is simply astounding.

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### Mr. Phil Helwig

### ISSUE 1: CHOICE OF THE SAFETY FACTOR FOR NORTH SPUR DAM

This follows-up on my letters about the design of North Spur Dam that were published, as opinion pieces in the Telegram in September 2014 and September 2015. The gist of these articles was to point out the risks posed by the presence of sensitive clay in the foundation of this structure and the need for special care in the design and construction of this work. Among the points I raised was the issue of the choice of the factor of safety for design. I got no responses from Nalcor to these letters. This question was later addressed to Nalcor as "Questions on North Spur". This time Nalcor replied. In their reply they stated: Safety factors in (the) geotechnical industry are calculated based in the physical and mechanical properties of the soils/embankments and the hydrogeological conditions of the site/embankment.

The designer's choice of a safety factor of 1.5, steady state at FSL (LCP: Design Criteria – Geotechnical, SLI, 2013) is believed to be taken from the Canadian Dam Association Guidelines. Guidelines should not be considered as a mandatory code but as guidance to the designer who would be expected to reflect on the special site conditions, beyond the purely technical aspects of design. Of particular concern is the uncertainty of the properties of the soils of the natural spur.

To complete my argument, I am inserting excerpts from the 7th Spencer J. Buchanan Lecture: Factors of Safety and Reliability in Geotechnical Engineering by J. Michael Duncan (1999):

"It is proposed that probability of failure should not be viewed as a replacement for factor of safety, but as a supplement. Computing both factor of safety and probability of failure is better than computing either one alone. Although neither factor of safety nor probability of failure can be computed with high precision, both have value, and each enhances the value of the other."

"Reliability analyses provide a logical framework for choosing factors of safety that are appropriate for the degree of uncertainty and the consequences of failure. While the factors that enter the relationship among probability of failure, consequences of failure, and the added cost of increased factor of safety cannot be evaluated with a high accuracy, the relationship does serve to distinguish conditions where lower-than-normal factors of safety are appropriate, or where higher than normal factors of safety are needed."

What do I want?

- 1. I want Nalcor to explain how they addressed uncertainties regarding in-situ materials in the existing North Spur in their choice of the factor of safety.
- 2. Nalcor, please advise the value of the minimum safety factor calculated along the critical failure surface for the final geometry of the structure.

I am scandalised that to date no presentations on the design of the North Spur have made to local technical societies or at PEGNL Chapter events, whereas numerous presentations have been made at various national conferences. It is time that this subject is presented locally and the ideal venue for such an event is the Geo St. John's Conference (72<sup>nd</sup> Canadian Geotechnical Society Conference) on September 29 to October 2, 2019. I have asked members of the organizing conference committee if there will be a paper on the North Spur. To date they have been unable to find anyone to speak on this topic (shameful). I request that Nalcor sponsor someone to take up this challenge; may I suggest Regis Bouchard, P.Eng. the designer of record or someone else who is familiar with the studies and design?

### ISSUE 2: STATEMENT POSSIBLE BIAS IN THE COMPARISONS BETWEEN THE ISOLATED ISLAND AND INTER-CONNECTED (MUSKRAT FALLS) OPTIONS

I would like to preface my comments by recalling my introduction to power systems planning as a junior engineer working for Shawinigan Engineering Company in 1966. We were involved in evaluating options for system expansion, typically, comparison of hydro versus thermal expansions or sometimes whether to build or buy power from another utility. Our work was guided by the principles designed to weigh options fairly and avoid bias; as listed below:

- 1. The costs of competing options should be developed to similar levels of accuracy.
- 2. All options should be developed to meet system load requirements optimally, that is at least cost for the system configuration proposed.
- 3. Our studies typically involved comparisons of systems having differing characteristics, typically hydro versus thermal somewhat like comparing "oranges versus apples". To address this challenge, life-time costs were estimated by simulating operation of competing systems to meet the utility's forecast demand and these costs were then discounted to present value totals. All system costs were considered in these calculations. Competing options were then compared on the basis of present values of life-time costs.
- 4. Typically, system expansions for mature systems are in increments of 5% to 10% of capacity. This approach assumed new system additions would be fully integrated into a system within about 5 years. Larger steps and longer periods for integrating new plants were generally viewed as more risky.
- 5. We usually included sensitivity analyses in our studies to assess the impacts of plausible variations in assumed input data. These analyses gave us indications of the robustness of our analyses and informed our final conclusions.
- 6. Utilities should also develop a long-term plan, say 20+ years into the future, to identify resources/ potential projects that could be called upon to meet future system growth.

I believe that Nalcor's analyses were biased because they did not follow the sound planning principles, as given above, with sufficient rigor. The following shortcomings are noted below in summary form.

Conflict in objectives.

- Lack of equivalence in project preparation efforts between "Isolated Island" and "Muskrat Falls" options.
- Inconsistency in approaches to project scheduling and costing between options.
- If Nalcor was truly committed to developing a least-cost solution they should have developed a
  more credible Isolated Island Option, utilizing more available Island wind and hydro energy
  resources. I believe if the evaluations of the Isolated Island and Muskrat Falls options by Nalcor
  had been done in a rigorous and unbiased manner that the Isolated Island Option would have
  been preferred.

### What do I expect from the Inquiry?

- 1. That the inquiry comment on the question of bias in Nalcor's analyses and findings: notably, the possibility that a properly conceived Isolated Island Option may have been the least-cost option.
- 2. That the principles of good practice in power system (or other infrastructure) planning be emphasized in the Inquiry's final report so that planning engineers, government bureaucrats, politicians and the public at large better understand these processes.

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### Mr. Tom Beckett

Is Commissioner Leblanc completely satisfied with the stability of the North Spur? If he is not, will he place a stop-work order on the filling of the reservoir until the stability issue is resolved to the Commissioner's satisfaction?

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### Mr. Tom Fowler

The lack of participation at recent hearings, and the suggestion by some speakers that Newfoundlanders and Labradorians are in part to blame for the problems with the Muskrat Falls project for not making their views known, and for not holding their elected officials responsible, have prompted me to submit these comments.

Were the business case and assumptions reasonable, and were the alternatives considered? I would expect Commissioner Leblanc to consider that the project management team likely did not have the competency to prepare a business case, given the Project Management Team (PMT) was composed of experts in the hydrocarbon sector, not the hydroelectric or public utility sector. Their understanding of the alternatives would have been prejudiced towards what was in the best interest of their companies, their shareholders, and their profits. Public utility experts among the PMT would have explored alternatives that would safeguard the public interest. The fact that we have now realized the worst-case scenario for the province and for its residents, and the lack of any meaningful explanation apart from finger-pointing, is evidence that alternatives were not sufficiently examined.

How did Nalcor assess risk and communicate the results of risk assessments? The PMT publicly distanced themselves from the Project Risk Assessment, explaining that it was not a document or process that was key to decision making. This means that no staff were dedicated to performing meaningful risk assessment. Rather, the Project Risk Assessment was completed as a paper exercise. One of the benefits of a Project Risk Assessment is that it forces the PMT to distribute the decision making around risk so that the departmental leads, at a minimum, have an opportunity to document their concerns. Once those concerns are documented, it raises the bar and can compel PMT to change course or postpone making a decision

until the concerns have been resolved or at least investigated. The fact that Project Risk Assessment was not part of the Muskrat Fall Project culture is direct evidence that the PMT deliberately excluded critical knowledge from the decision-making process.

Similarly, the communication of the risk assessment findings was deliberately sabotaged by the directive from the PMT to disallow written briefings and/or require verbal briefings. And comments from the provincial government, particularly the Minister of Natural Resources, show the depth and breadth of the chasm that separated what Nalcor knew and what they were sharing with those responsible for regulating them.

How should governments manage large publicly funded projects in the future? They need to be managed based on risk, with increased management oversight for high-risk projects, with the bar raised especially high for publicly funded and for a public utility. This one has many risk factors to consider – financial, environmental, impacts on Indigenous persons, and others.

Mr. Leblanc should also consider reputational impact. I am concerned that no respectable multinational company would be encouraged to do business in Newfoundland and Labrador after this.

I would also expect the government to thoroughly investigate the ethical behavior of all companies applying as subcontractors, which does not appear to have been done. I would want the government of Newfoundland and Labrador to be more holistic in its considerations of cost and benefits. For example, any benefits that might eventually accrue from this project should be weighed against the obvious costs (e.g., financial, environmental) as well as the perhaps less obvious but long-lasting consequences, such as further alienating Labradorians from Newfoundlanders, and further sending the message to Indigenous Newfoundlanders and Labradorians that their well-being is not a priority.

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### A writer who has requested anonymity

I have followed the Inquiry closely and feel as though elected officials in this province, particularly those who were responsible when Muskrat Falls was initiated, are so influenced by political partisanship that they are unable to meaningfully represent the electorate. I fail to comprehend what, other than political partisanship, could lead witnesses such as Danny Williams and Kathy Dunderdale to stand by Muskrat Falls still, even though it is so utterly over-budget and will have a very real financial impact on every resident of this province. Does a potential long-term benefit truly outweigh the financial burden faced by a generation of ratepayers in this province?

The whole debacle is reminiscent of the Churchill Falls contract under Joey Smallwood and how that project has also failed this province. All elected officials should have feared being linked to a project that had the slightest chance of repeating history and being another Churchill Falls, especially since that litigation was ongoing until November 2018. Newfoundlanders and Labradorians continue to suffer because of the lack of due diligence and political willful blindness by their elected representatives. I fear for the future here when political faithfulness seems to trump common sense.

A rampant problem is nepotism and political partisanship influencing hiring within the provincial government. Holding a public job competition can be avoided entirely if a position needs to be filled "urgently", so there's no incentive to hire fairly and promptly when a delay guarantees the ability to hire a relative/friend/political crony. This province hands careers to people who are under-qualified and with limited

experience but connected. A public competition for job openings is a rarity in some government departments. Anyone who regularly visits the Human Resources Secretariat Job Portal can see for themselves that some departments almost never post job ads and yet new employees continue to be hired. These hires may seem innocent enough, but people who lack appropriate experience and training today become the high-ranking bureaucrats of the future, making decisions about projects that could be the next Churchill or Muskrat Falls. Since it is these government employees who provide continuity when cabinet ministers are shuffled or when the governing party becomes the opposition, it is critically important that all employees have been properly vetted through a fair and open job competition process. The people of this province should want to ensure that fair job competitions have occurred for government positions and that the best candidate will get the job based on their skills and experience, not just people who have volunteered in an election campaign or have been born with the last name Crosbie or Wells. When political and personal connections are given more weight than actual training and ability, yet another boondoggle is just around the corner.

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### Dr. Stephen Tomblin

Since the start of the Muskrat Falls project, I have had concerns about a bad project that should never have been put into play, but these concerns were ignored in a political system that was never designed for citizens or good policy practice based on evidence. This is not a rare event, but rather yet another casestudy on the challenges posed by too much province-building autonomy and executive power. Unless or until this is recognized or acknowledged and old path dependencies are contested, such policy failures and outcomes will persist. Crisis and policy failure bring opportunities if seized. But that will depend on political will and pressure to bring about real change through democratic reform. The prospects given the power of the status quo is weak but there needs to be an attempt to pressure for fundamental reform and transformation based on policy as opposed to old risky political behaviours that have brought us to where we are today.

For the past 40 years, much of my research has focused on province-building and physical infrastructural development. In my view, Muskrat Falls is the tip of the iceberg for a system that is dominated by the political executive, where territoriality and politics matters more than open forms of knowledge construction based on needs of citizens and informed by evidence and good policy practice. For further details, I would recommend my book called *Ottawa and the Outer Provinces*, published by James Lorimer in 1995.

### MAIN POINTS:

- Muskrat Falls is tip of the iceberg and not an accident
- To understand and prevent again we need to focus on inherited path dependencies associated with the power and autonomy of the provincial state and associated energy/natural resource interests that are key to anchoring the power of this regime
- Knowledge construction and gaps were the product of restricted pathways of decision-making controlled and manipulated by various premiers and the agencies they created and relied upon
- In the current system of problem definition, resolution, and analysis citizens are spectators only
- Unless or until democratic/federal reform occurs and the dominant power, capacity, and autonomy of the executive is reined in and contested, these patterns of bad decisions and risky behaviour will continue.

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### Dr. Steven Wolinetz

I cannot help thinking of a book by a University College Dublin professor, Tom Garvin, about Ireland's delayed economic development. Its title was *Preventing the Future: Why was Ireland poor for so long?* (Dublin: Gill & Macmillan, 2004). Its subtitle intrigued me. When I commented on it to a colleague, he quipped that it might well have been subtitled, "Why were we rich for so short?"

That question could be applied to Newfoundland and Labrador. The Muskrat Falls project was launched during an oil-fed boom when our province was enjoying unprecedented prosperity. The question that the Inquiry has been addressing is "Who dropped the ball?" or, differently put, what went wrong?

Recent testimony indicates that it was not only NALCOR and the people who led it, but also civil servants, who failed to keep notes, as well as ministers and premiers, who failed to ask questions and could no longer remember advice that they received. However, they are not the only ones who dropped the ball.

We – members of the public – also bear some responsibility: All of the arguments against and questions that should have been asked were out there, in the media, and in particular, in the much-maligned *Evening Telegram*. To its credit, *The Telegram* printed the detailed critiques that people like Ron Penney, David Vardy, and to a lesser extent, Cabot Martin, wrote, as well as questions that I raised.

However, no one wanted to engage the arguments or criticize a strong leader who was going solve everything and, in the process, settle ancient scores.

I don't want to go into the rights and wrongs of the Churchill Falls agreement, but it is not as one-sided as some think. Joey Smallwood had no other source of funds for Churchill Falls and in 1964 there was little reason to imagine the hyperinflation that took hold after 1973. Instead, we tripped blindly into a project whose costs and mounting debts will drain public finances and private savings for years to come.

Public debate is not something at which our political leaders excel. To be sure, politicians monitor and respond to what is open line radio shows, but much of what masquerades as public debate and debate in the House of Assembly is bereft of content because, among other things, politicians and MHAs don't have the information they need to properly critique or evaluate policies they are considering.

Nor is settling ancient scores is not a sound basis for public policy. Our politicians and civil servants need to do much better, not only assessing policies, but also shaping debates so that the public can participate in them, and we --members of the general public – must demand more so that leaders cannot get away with implementing policies or projects that squander public money.

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### A writer who has requested anonymity

The fact that Government has continued spending at high levels leading up to the second election, shows their sole intentions of securing a mandate. The clear message of waiting for oil prices to rise, shows that neither party can make educated decisions with the public interest in mind. No long term plans. Period. Going forward, no governing party should be allowed to interfere in power system design or reliability decisions. The infrastructure is too expensive and too important to have decisions based on jobs and winning elections. The PUB involvement and an independent scientific approach to meeting demand is the only approach to building a robust power system. We need to continue to build power plants and transmission infrastructure. It cannot be done willy-nilly. The purpose of the Power commission is to provide a

service to the public of Newfoundland, not to raise profit. The revenue, all of it, should be used to pay for power infrastructure and keep costs to consumers low. Do not use electricity revenues to build roads. That's what gas taxes and vehicle registration fees are to be earmarked. Do not build hospitals with electricity revenues. That's what tobacco and cannabis taxes are designed for. Government should be handing out parcels of land for free at this point, to attract industrial electricity customers. That's the kind of planning they should be driving. Not waiting for oil. Those revenues will be wasted on Avalon services and blown on silly greenhouses soon enough. We've been wasting breath on tourism dreams since Brian Tobin's Cabot celebrations. Ottawa is only interested in Quebec and that has not and will not change in this Confederation without an elected equal representative senate. So, give up dreaming. Only the people in this province can make decisions and help this province. Stop spending. Cut costs. Sell the big trucks and bikes. Now. We've lost independent governing twice already. With blind dependence on oil and pipe dreams, no pun, we will continue the downward spiral. Roll up our sleeves and start working. There's a lifetime of hard work needed to right this ship.

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### Mr. Dave Lough

The Churchill River (formerly the Hamilton River and known locally as the Grand River by trappers and by the Innu as Mishtashipu) is one of the great sub-arctic rivers of Canada and the largest river in Atlantic Canada.

The dreams of provincial politicians to harness power from the Churchill River have dominated our history since the 1950's. Ironically in Labrador the Menihek Dam built in 1954 and Twin Falls project in the early 1960s (both to support iron ore development) were economic development success stories of how to build small low-impact hydro generating facilities. Menihek still generates power.

As we know, in 1975 an initial start on the Lower Churchill project was delayed because of marketing and financing issues. In 1978, the Lower Churchill Development Corporation was established, owned 49% by the Government of Canada and 51% by the Province. In 1980, the Joint Federal-Provincial Environmental Assessment Panel for both Lower Churchill projects recommended the project proceed subject to conditions outlined in recommendations mainly around monitoring and compensation related to the natural environment. However, the project still did not have marketing and financing arranged and did not proceed.

The river has long been identified provincially as a major economic resource asset for the Newfoundland and Labrador economy much like Labrador West's iron ore, Voisey's Bay nickel and the offshore petro-leum reserves. In contrast and less understood by decision makers is that in Labrador, the river is viewed as a great historic and special place that is an integral part of a deep and spiritual attachment to the land. However, from the outside it is viewed as a remote uninhabited river that is solely a provincial economic asset. One can only ask, "Would residents in Western Newfoundland stand quietly by if the Province decided to dam the Humber River?"

We now know thanks to the Inquiry the details of the sanctioning and development of the Muskrat Falls portion of the Lower Churchill Project and the negative impacts. I recognize the Commission of Inquiry does not have the mandate to examine the environmental or social justice issues around the project.

I will touch however on two items which I think are worthy of consideration in final recommendations by the Inquiry and in my opinion could help ensure we do a better job of managing our resource development projects in the future.

I submit that we need to look ahead to the future of the Churchill River and the generating power capacity we now have and the river as an important eco-system which we must manage more responsibly in the future. We hopefully now live in a new era of accountability, respect for the environment and Indigenous rights at the same time balancing good resource development projects.

Recommendation # 1: "Not everyone is to blame for the failure of the Muskrat Falls Project" Firstly, recognition of those who for no personal gain provided good critical analysis and advocacy and acted in the public interest is needed.

The 2041 Group and the leaders of the Muskrat Falls Concerned Citizens Coalition who have for many years dedicated time and expertise to informing us all through solid fact-based critical analysis and asking legitimate questions. There would have been no Inquiry if they had not persisted. They deserve to be recognized for ensuring democracy works in NL and for leading an informed dialogue on very important issues on our behalf.

Secondly, we need to recognize the Labrador Land Protectors who had no motive other than a love of Labrador and the protection of a great historic river and the well-being of those who lived along it. Senator and former Judge Murray Sinclair expressed his extreme disappointment about the unjust incarceration of protestors. One protestor, artist Billy Gauthier, jeopardized his own health to protest and ended his hunger strike when he was promised action. An independent Expert Advisory Committee resulted. It is a sad commentary that the only people who risked their lives or who were incarcerated were those local residents standing up for the environment and their homeland. The Land Protectors were clearly not a threat to anyone, and they represented a real concern in Labrador that the process was flawed. The Justice system, the Province and Nalcor failed them and all of us in responsible handling of legitimate protesting.

Recommendation # 2: "Good Environmental management cannot fall through the cracks"
We now have a better understanding through the Inquiry process of both the Upper Churchill and Lower
Churchill Projects. However not enough has been said about the responsibility of governments Federally
and Provincially to manage and protect the river and its watershed in partnership with the Indigenous
residents and communities of Labrador.

The signing of the New Dawn Agreement was a positive step that recognized the negative impact of the Upper Churchill and flooding on the Innu population. The Innu protesting of low-level flying in Labrador had also established their concern for the interior of Labrador. The New Dawn Agreement guaranteed economic benefits for the Innu from Muskrat Falls. However, the issue of land claims and environmental management remain. The other stakeholder groups in Labrador were deemed wrongly to be minimally affected by the Project and were only informed and not meaningfully engaged until they initiated political pressure around the downstream impacts.

A key flaw has been that it was deemed acceptable practice to only cherry-pick a few recommendations of the Environmental Assessment Panels. This is despite the fact that as far back as 1980, the Lower Churchill Environmental Assessment Panel recommended in the key areas of reservoir clearing, mercury levels, monitoring and mitigation. The Panels only recommend and the agencies responsible often claim not to have the financial resources to implement key recommendations. In the efforts at cost control, environmental protection spending is seen as discretionary and this is especially evident when the developer is a public agency.

The result is the complex ecosystems of the large subarctic Labrador Rivers are not being carefully monitored and managed and residents have no reason to be confident that their special places are protected, and their concerns are considered.

Newfoundland and Labrador has two designated heritage rivers: the Bay du Nord River and the Main River. The responsibility in this Province to present nominations to the Parks Canada-administered National Heritage Rivers Board rests with the Government of Newfoundland and Labrador. Being a designated Heritage River in Canada provides an opportunity to help determine the river's future and improve the quality of life of people living near it. With designation comes a commitment by managing governments to work with river stakeholders — residents, local governments, landowners, business groups, indigenous organizations and interested parties to carry out actions detailed in a management strategy.

None of the spectacular rivers of Labrador — including the Pinware, the Eagle, the Adlatok and the Churchill — have the stewardship they need. There are no management plans for these rivers and no recognized system for the communities to participate in management and stewardship of the rivers. Governments and the Labrador stakeholders need to start a new process to systematically study these river systems and engage in a process of developing comprehensive management plans.

In Newfoundland and Labrador, there is a strong sense of place and attachment which has translated into creativity, pride and resilience. In Labrador the attachment to the land is especially strong as told so well in Harry Martin's song "This is my Home". It can be said those who do not respect the land in Labrador do so at their own peril.

We are all responsible for the management of the great rivers of Labrador and the well-being of those adjacent to them. We need to do better and if we don't the gap will widen between Labrador and Newfoundland. Unfortunately, the experience to date is clearly that the only champions for the environmental stewardship of Labrador are its residents. The Province demonstrated it cannot be an owner and developer of a major project and at the same time have the responsibility for managing the natural and social environment. We may have learned through the Inquiry how we must ensure better decision-making and management of major economic projects, but we have not yet demonstrated how to be responsible caretakers of the land around the developments. With good planning new projects can move forward with communities as full partners. No future major developments should occur in Labrador without a new approach and partnerships to ensure there is a funded commitment to environmental research, planning and management. It may be part of the cost of projects, but it is also a winning solution for real sustainable development. I hope the Inquiry will help recommend a new direction for future major project management which will include a higher value placed on environmental stewardship and real partnerships with Indigenous organizations.

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### Mr. Matthew Barrett

I am very concerned to hear that the flooding at Muskrat Falls is currently going ahead without any clear-cutting of the flood zone or wetland capping. All indications suggest that despite prior agreements to mitigate methylmercury, the current government will do nothing of the sort. I know that the Liberal Government has promised to monitor mercury levels, but I really don't know what this will solve or prevent.

We all know from past hydro projects (Churchill Falls) that mass flooding of an area with vegetation will increase mercury levels in the water. It has also been said that mercury levels have yet to increase much

but the area is only partially flooded, and it takes time for vegetation in the area to break down (increasing methylmercury levels). In actual fact, once the area is flooded, the mercury levels will only gradually increase over time. I'm curious as to what the monitoring will solve. What can actually be done once mercury levels have risen to an unsafe level? I know that wetland capping will only somewhat prevent mercury levels from rising but I think it is important to do anything and everything possible to prevent mercury levels from rising in our waters.

I have lived in Labrador most of my life and I consider myself a proud Labradorian. I know that the most important resources in Labrador are the land, water, and wildlife, yet the government continues to move forward with the flooding of the Muskrat Falls project without any attempts to mitigate methylmercury levels in the beautiful Grand River (Churchill River). I understand that projects like this are important to Goose Bay, Labrador, and the province as a whole. It's important to move forward, create jobs, and work toward a strong economy, however we shouldn't sacrifice the health of our land and waters in doing so.

At the beginning I was a supporter of the Muskrat Falls project. As the project progressed and moved along, I was on the fence about a lot of it and tried to trust that our government would do what was best for the people of Labrador and the province. Recently hearing that the government is going to go ahead with flooding without any clearcutting or wetland capping has me completely mystified. All because it's too late and they missed the deadline.

I'm also shocked to hear that instead of using the \$30 million allocated for wetland capping that the money will be going to Nunatukavut and Innu Nation. I'm glad to hear that money is going to these groups but what will this money do in 30 years when the mercury levels have increased to an unsafe level? I'm also glad to hear that the Nunatsiavut government hasn't agreed to a deal to go ahead with flooding without wetland capping. We should be using the resources we have, in our beautiful wildlife instead of poisoning the food we eat as Labradorians. I know the area will be flooded and Muskrat Falls will go ahead and I'm okay with that but at least take the proper measures to prevent the waters, fish, and wildlife from being sacrificed for our future populations.

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### Ms. Robin Goodfellow-Baikie

The financial costs to the province of on-going health effects caused by the impact on the surrounding environment of noise generated by the construction of the Muskrat Falls Dam and transmission lines are substantial. In my 1989 thesis "Effects of Low-Level Military Overflights as Perceived by the Sheshatshiu Innu" (Master's in Environmental Studies thesis, Dalhousie University, 1989), the drastic effects that noise can have on wildlife (in particular caribou) in the Labrador wilderness became apparent. Traditionally, caribou meat has been a staple of the Innu diet. Modern-day Indigenous people are more and more dependent on store-bought foods. This change in their diet has produced a sharp rise in the incidence of diabetes and other health issues (cardiovascular disease and cancers, for example). The resulting extra demand on the province's health care system is considerable.

Dr. Fred Harrington of St. Mary's University, in "Short-Term Impacts of Low-Level Jet Fighter Training on Caribou in Labrador", (Arctic; Volume 44, No. 4, December, 1991, pp. 318-327) did a public presentation prior to the release of his study. A map of the long-term movements of two collared George River caribou showed that when they reached the edge of the northern low-level flying zone, they would "bounce off" like a table tennis ball on a table. Herds that can avoid noisy areas will. Herds whose ranges are constrained by mountain ranges (like the Redwine or the Mealy Mountain herds) won't.

For my thesis, I measured a day-night background noise level (DNL) of 26 dB(A) at Redwine Lake, Labrador. When I relayed this to a noise expert at Bolt, Beranek and Newman (noise experts in Boston, Mass.), at first, he didn't believe it – until one of his associates claimed to have measured a similar level at a national park near Jackson Hole, Wyoming. In northern Saskatchewan in the 1970's, there was much controversy about proposed uranium exploration. When exploration did start, it was the Northern Saskatchewan Trappers' Federation that immediately complained that noise from the exploration had driven wildlife out of the area.

The extreme quiet of rural northern areas in Canada allows low-frequency noise and vibration to fill the noise "vacuum". Wildlife use the extreme quiet to "hear" from some distance the approach of prey and predators alike. Noise from construction of a hydroelectric dam, for instance, would "blind" animals in the area, and they would disperse.

Although the construction of the Muskrat Falls Dam and transmission lines was supposedly conducted far south of the migration route of the George River Caribou Herd, in the past decade, I have myself witnessed large numbers of the George River Herd close to the Trans Labrador Highway east of Churchill Falls. The Ungava Peninsula Caribou Aboriginal Round Table, in its 2017 report studying the George River Herd, diagrams its population "cycle" in a circle: low and increasing, high and increasing, high and decreasing, and low and decreasing. Their report suggests that at each critical stage of the process, the herd could be highly dependent on the use of different essential areas. So, although an area like around the Trans-Labrador Highway east of Churchill Falls might only be used once or twice in 20 years, without it the possibility to use it at critical times the herd could face serious population decline — even more drastic (and permanent) than normally occurring remarkable declines.

Noise from the Muskrat Falls development would seriously affect wildlife, especially caribou from the George River Caribou Herd, leading to eventual serious population decline and loss of a traditional food source for First Nation communities. Resulting jumps in diabetes and other health issues present a significant ongoing financial expense for the province.

I wish to add the following three comments to those that I made in my presentation at the Lawrence O'Brien Centre in Labrador August 8, 2019:

- 1. I referred in my presentation to a 2003-2007 Ventus wind energy proposal for Churchill Falls. In response to my presentation, engineer Overton Colbourne (who also presented Aug. 8) told me that there were up to six engineering companies that responded on the island with wind energy proposals (between 2003 to 2007). They did so at their own expense, and that they seemingly were also good proposals, and they were turned down. I continue to fail to understand why the choice was Labrador-Island Link or Isolated Island System couldn't a compromise of LIL without Muskrat Falls, coupled with enhanced island supply, such as wind, have been considered?
- 2. It appears to me that the Order-in-Council that indicates that East/West Labrador would not be paying the Muskrat Falls rate could be vulnerable to change. We are aware in Central Labrador that a \$20 Million connection between the Churchill Falls/Muskrat Falls AC connection can and will be put into Happy Valley-Goose Bay (thereby replacing the present, older 72 MW AC line from Churchill Falls). However, we worry that the industrial pressure from Bitcoin activity (e.g., Godwin's Great North Data) will use up this AC power. I fear that Labradorians would 'rise up' if the lower power rates were to be substantially changed for whatever reason. Labradorians, with the Muskrat Falls project, 'have given up more than enough', they say.

3. I did say that the Government of Newfoundland and Labrador had the courage to hold the Muskrat Falls Inquiry; I now say that it was of great value to citizens of the province – we have virtually met people, learned how things do and do not work, and, through this process, we retain this passion for the province and its affairs! Thanks for all for all this.

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### Mr. Gabe Gregory

Much discussion regarding public policy has now centered on rate mitigation. I think it is most important that Inquiry clarify for the public that mitigation is a term that may apply if the Federal government intervenes to reduce costs to the NL ratepayers/taxpayers, otherwise it is a dishonest term being used to yet again mislead the NL public that there is some magical way to reduce the burden of the Muskrat Falls project.

Revenues from Nalcor, our government from other NL public agencies cannot mitigate our electricity costs. This is a fallacy. These revenue sources may subsidize electricity costs, but they cannot mitigate them. Taking public money to subsidize the costs of Muskrat Falls means higher deficits or reduced public services (health, education, etc.), no matter the NL source of such funds. The public deserves to be told the truth that Muskrat Falls cannot support itself financially; the capital investment has to be written down to its real market value.

Market value can only be determined by the true market rate that the NL public should pay for the power produced. The incremental market revenues borne by ratepayers should be the guide for the determination of the real market value of the investment. In other words, if the market for electricity has no ability to bear any incremental cost, then the investment is virtually worthless. This is the extreme, of course the investment has some value, but it is substantially less than the capital cost. It is clear that the equity NL has invested is worthless and the entire investment must be added to general debt of the NL public to the extent that some outside source of funds is not available to mitigate, i.e., reduce the cost.

Much of the capital cost has to be written off just as the so-called investments in Labrador Linerboard and the Sprung Greenhouse — public investments that had no value. These conclusions are now obvious, and the Inquiry must tell the people the truth. Muskrat falls is only worth what the market can bear as a cost or as an investment to replace Holyrood power for the realistic cost of that replacement, and that assumes that reliability is so good that we do not need Holyrood or some replacement as backup.

The other important points that the inquiry should address relate to informing the public what it is responsible for. The Government needs to be advised to have an objective analysis done as to whether Nalcor has to be subsidized by the public or we should let it default on its obligations. It is apparent that Nalcor cannot recover its costs by charging the public for power at the theoretical rate that pays its costs because this rate will cause the demand and economy to collapse. It is not real. The current fallacy of rate mitigation is an outright admission that Nalcor cannot recover its costs to service its debts and obligations.

The public needs an objective assessment as to what additional revenue can be generated from higher electricity pricing without driving down demand and this would then form the basis for a market-based assessment of the value of the investment and the determination of how much of the capital cost has to be written off. An acknowledgement of reality is required. A significant write-down is the only realistic outcome. Then we can get on with dealing with the real economic problems we face as a society.

Rate mitigation is a red herring unless of course, we know that the federal government is going to subsidize the cost of the power to the extent required. There is no means for NL or any public agency of our government to reduce or mitigate costs. Let's not mislead the public any further on the reality of Muskrat Falls.

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### Mr. George Power

After reading the editorial in *The Telegram*, Saturday, July 6<sup>th</sup>, "Another chapter, another blank cheque" outlining the date that this province officially signed away a key piece of its fiscal stability, I have a few key questions. Can a provincial government sign beyond its fiscal capacity? Does a corporate law agreement require that it is supported by business principles or can it simply bind the recipients (ratepayers) based on the financial strength of a guarantor (Federal Government)?

What if the project was all based on a fraud? Would only the recipients (i.e., ratepayers) be the ones holding the bag? Do low-balling construction estimates and failing to report updated overrun budgets or risk reports with a 97% chance of overruns constitute fraud? Does failing to even ask the management team for written confirmation of the most recent budget constitute a failure in basic due diligence for the corporate law team and banks? Can a bank collect on a loan guarantee without demonstrating that it had actually done any fundamental due diligence prior to executing the loan? If not, was the Federal Government or the legal team negligent in not inputting such standard clauses into the Muskrat Falls (MF) agreement?

Note that loan guarantees are not standard practice for the Federal Government and those in practice such as the Canada Mortgage Housing Corporation insurance and Farm Credit Corporation all require bank due diligence prior to executing loans or the guarantee is not paid out. Are there any terms in the *Canadian Bank Act* requiring basic business principles prior to executing loans and particularly in relation to multi-billion-dollar loans?

The answers to these questions can help in determining whether the agreements signed on December 10, 2013, are legally enforceable. Mitigation strategies for the ratepayers can include a combination of the following:

- Federal share in the costs;
- A write-down of the loans;
- A reduction in the bank interest on the initial \$5 Billion loan from 3.8% which is 100 basis points higher than a top federal government rate;
- A reduction of Emera's 8.4% return on equity on the Labrador infeed line or its replacement with much cheaper debt.

The citizens of this province have to bear a portion of the consequences for a bad decision made by its democratically elected government in signing the MF loans. However, these same citizens only make up 1.5% of the electorate for the federal government which also made a bad decision in granting a guarantee which made this difficult fiscal situation possible.

The citizens should also have some basic protection from financial ruin through reasonable governance laws of Canada. Please dedicate some resources to determine whether the above questions can yield a practical result. If there is any protection for the citizens through the Canadian Constitution (to rephrase

Churchill's words), "Why can so much damage be done to so many by so few?" Especially from those who benefited greatly from their actions.

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### Mr. Vaughan Hammond

The Canadian Federation of Independent Business (CFIB) is a non-partisan and not-for-profit organization that represents independently-owned small- and medium-sized enterprises. We represent 110,000 members across the country and have approximately 2,000 members in Newfoundland and Labrador.

When the Muskrat Falls development project ("the Project") is completed, there will be potential to produce 824 MW of electricity for use inside and outside Newfoundland and Labrador. Given the concerns associated with cost over-runs and the delayed completion of the Project, the provincial government announced the Muskrat Falls Commission of Inquiry ("the Inquiry"), with established terms of reference, in 2017. The Inquiry has commissioned the Harris Centre to conduct public consultations as part of its deliberations. The Canadian Federation of Independent Business (CFIB) is submitting its views on behalf of its membership.

Currently, Newfoundland and Labrador has some of the lowest electricity rates (depending on the class) in Atlantic Canada, despite a significant increase in 2018 (see Table 1). Even if the provincial government is able to keep electricity prices at the Atlantic Canadian average, as it has suggested, ratepayers in the province could expect a significant increase. Assuming other jurisdictions increase their current electricity prices by two per cent a year to 2021, the following increases could occur in Newfoundland and Labrador: Residential – 21 per cent; Small Power – 32 per cent; Medium Power – 36 per cent; and Large Power – 10 per cent.

Table 1
Forecasted Atlantic Canadian Average for Electricity Prices (2018-2021)

	Residential (\$)		Small Power (\$)		Medium Power (\$)		Large Power(\$)	
Province	2018	2021	2018	2021	2018	2021	2018	2021
NL	13.52	16.35	12.47	16.44	13.04	17.68	8.91	9.77
NS	16.41	17.41	15.44	16.39	17.15	18.20	10.26	10.89
NB	12.97	13.76	13.49	14.32	14.50	15.39	7.86	8.34
PE	16.83	17.86	17.54	18.61	18.32	19.44	9.51	10.09
Average	15.40	16.35	15.49	16.44	16.66	17.68	9.21	9.77

Source: CFIB analysis using Hydro-Québec's annual report titled, Comparison of Electricity Prices in North American Cities, April 2018. Small- and medium-sized enterprises could be categorized as Small Power or Medium Power customers for the most part.

We know from our research that the use of electricity is most prevalent by SME owners for their operations. However, some do use oil often to complement electricity use. Intuitively, electricity is an inelastic service for small business owners. Due to the nature of business operations, we know the vast majority of business owners cannot reduce their electricity consumption easily. Regardless of how high the rates may go, a large number will find it difficult to lower their electricity use by switching to another reliable energy source or adopting conservation measures. This is different than the industrial customers who have the resources to find ways to reduce their electricity consumption or even remove themselves from the electricity grid and produce their own energy.

In 2012, the Government of Newfoundland and Labrador sanctioned the Project at a forecasted cost of \$6.2 billion (excluding financial costs) with first power by 2017. However, the Project is currently estimated to cost at least \$10.1 billion (excluding financial costs) and full power is expected by 2020. The structure of the project, including agreements with the federal government, means the customers of Newfoundland Power will bear full responsibility of the Project's cost. In various submissions to the provincial Board of Commissioners of Public Utilities (PUB), Nalcor has estimated electricity rates will have to rise to 22.9 cents per kilowatt hour (kWh) to generate \$744 million in 2021.

Essentially, without mitigation, electricity costs for customers are expected to almost double. In 2017, CFIB conducted research that showed an effective doubling of electricity rates will mean a collective increased cost of \$179 million per year. To reduce the effect of Muskrat Falls development on electricity rates, there is a substantial amount of focus being placed on rate mitigation. This simply means that rather than the ratepayer paying, revenues will be generated, in whole or in part, through taxation. The Inquiry's Terms of Reference allows the Commissioner to consider "the need to balance the interests of the ratepayers and interests of the taxpayers in carrying out a large-scale publicly-funded project." However, the focus on rate mitigation has been largely centred on revenue generation. What is being discounted is the need to find savings within provincial government departments, agencies, boards and commissions and the implications on public service delivery.

Regarding the discussion on rate mitigation, comments made by Professor Brandon Schaufele to the Inquiry on July 16, 2019, were particularly striking as it relates to the balance between the ratepayer and taxpayer. He provided some economic background on the economic effects of having the ratepayer or taxpayer bear the burden. His conclusion is the provincial government and the PUB have to consider the rate and tax implications of any decisions and there will likely be a trade-off between paying for the Project and how to apply that cost to all groups in society equally. Professor Schaufele recommends the government should allow for higher rates to be raised to offset the potential increases in taxation and associated costs.

Professor Schaufele's presentation to the Inquiry raised the concept of Ramsey pricing. Under this concept, different customer classes would be charged different rates depending on their price elasticity of demand. In this regard, industrial and commercial customers will pay less and residential customers will pay more. Cross-subsidization in the Newfoundland and Labrador market currently exists, but it is different than what the Ramsey pricing rule would suggest. Most SMEs are classified as General Service 2.1 or General Service 2.3 customers. According to Newfoundland Power's 2019-2020 General Rate Application, customers in those classes will respectively pay 8.4 per cent and 9.2 per cent more than the cost to provide them with service (page 5-6). This is inherently unfair to SME owners, but the PUB has accepted this since 1997.

The Inquiry's Terms of Reference requires the Commissioner to look into "whether the determination that the Muskrat Falls Project should be exempt from oversight by the PUB was justified and reasonable and what was the effect of this exemption, if any, on the development, costs and operation of the Muskrat Falls Project." It is clear that regulatory oversight has an important role to play in ensuring a large-scale project is completed on time and on budget. For comparative purposes, the Maritime Link portion of the Muskrat Falls project underwent review by Nova Scotia's Utility and Review Board (UARB). According to Emera Newfoundland and Labrador's October 2018 quarterly report to the UARB (the latest available publicly), the Maritime Link is forecast to come in on budget, if not under budget.

Regulatory oversight in the energy sector is very important, but yet, the Lower Churchill project (which includes Gull Island) has been exempt since 2000. It is interesting to note the PUB did not review the Maritime Link project because it was exempted from review in 2013, as were the other components of the Muskrat Falls development project. These exemptions are allowed as per section 5.2 of the *Electrical Power Control Act*. In addition to them, Order-in-Council 2013-343 disallows the PUB from reviewing any future changes in electricity rates associated with the Muskrat Falls project to ensure appropriate cost recovery. Further, subsection 5.1(2) of the *Electrical Power Control Act* gives the provincial government the authority to direct the PUB to implement any policies, procedures and directives related to the Project.

Nalcor is also treated differently than other government bodies as it relates to access to information. Section 5.4 of the Energy Corporation Act outlines the process by which information deemed to be commercially sensitive can be obtained; it is highly restrictive. As CFIB noted in its submission during the 2014 review of the provincial access to information legislation, there should be an appropriate balance between transparency and business practice. However, commercial entities have to recognize that transparency within government bodies is a necessity and the release of some commercially sensitive information is a cost of doing business with government. To add to the lack of transparency at Nalcor, subsections 5.4(6) and 5.4(7) of the *Energy Corporation Act* allows the chief executive officer to determine what information can be released publicly should the provincial Auditor General conduct a review within Nalcor.

Based on the above, CFIB recommends the following for consideration by the Commissioner:

- The provincial government should provide a full, transparent and independent analysis of rate mitigation in Newfoundland and Labrador. Despite the work of the PUB on rate mitigation, it is only providing options to mitigate rate increases due to the Project and the provincial government is not bound to adopt any recommendations presented by the regulator. The provincial government's rate mitigation plan presented in April 2019 is unrealistic because it is unknown whether the options will generate sufficient revenue and there is a requirement to negotiate the involvement of the federal government. Further, the plan does not address the growing costs of Muskrat Falls beyond 2021. In addition, the presentation by Professor Schaufele raises doubt that full rate mitigation (ie. allowing rates to grow to 13.5 cents/kWh in 2021) is the best option for Newfoundlanders and Labradorians. There has also been very little discussion on where the provincial government can find savings to ensure rates and/or taxes do not have to increase to the fullest extent being contemplated.
- The PUB should change its 1996-1997 (Order No. P. U. 7) to allow for a revenue-to-cost ratio of zero per cent (i.e., 100). It is unfair that small business owners pay more for electricity than it costs to deliver it to them. As they face higher costs for an inelastic service, in conjunction with other initiatives, reducing the revenue-to-cost ratio can help lessen the effect.
- The provincial government should reform the legislative and regulatory framework to provide greater oversight on large development projects in hydroelectricity. The lack of government oversight is a key contributor to the cost over-runs and schedule delays experienced with the Muskrat Falls development project. The provincial government can immediately rescind the exemptions provided to the Lower Churchill development project implemented on 2000, as well as the exemptions adopted specifically for the Muskrat Falls development project (including related Orders in Council). At the earliest opportunity, the Minister of Natural Resources should seek approval from the House of Assembly on amendments to the *Electrical Power Control Act* rescinding subsections

5.1(2) and 5.2. The Minister of Natural Resources should also, at the earliest opportunity, introduce into the House of Assembly amendments to the Energy Corporation Act, specifically section 5.4, ensuring Nalcor is more transparent and can be held more accountable by the public.

In conclusion, the costs of the Project have to be paid and small business owners are likely to bear the brunt of any increases, whether in rates or taxes. From the small business perspective, rate or tax increases will require owners to analyze and decide how much any costs can be passed on to the consumer (who is, for the most part, also a ratepayer and a taxpayer) as part of the business adjustment process. The Inquiry's value has been in creating an understanding of how the Muskrat Falls project has been managed. Its conclusions and recommendations should be beneficial in the future if the provincial government decides to undertake another large-scale development project like Gull Island hydroelectric development or an underground tunnel linking the island of Newfoundland to Labrador.

We trust the views and information presented in this letter will be helpful to the Inquiry and would be happy to discuss further if necessary.

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### A writer who has requested anonymity

A significant reduction of electricity rates can be achieved by exploiting the future value of electricity produced by Churchill Falls after 2041 that is two-third owned by NALCOR. Attached is a report describing how this can be achieved. Churchill Fall's production can bring a regular stream of approximately \$300 millions per year of revenues to Newfoundlanders, reducing the foreseen rate and tax increases.

### Executive summary of a 59-page report:

NALCOR and the government of Newfoundland & Labrador (NL) will be facing major financial stresses resulting from delays and cost overruns on the Muskrat Falls project and associated power lines. This text describes three methods to ease those financial stresses from now and up to year 2041. The methods used all convert the future value of electricity produced at Churchill Falls (CF) after 2041.

The first method would involve the delayed exchange of electricity with NALCOR receiving electricity from Churchill Falls once the Labrador Link (LIL) is operational in mid 2018. Before Muskrat Falls (MF) operates, an estimated 6.2 TWh could be supplied to the LIL at no immediate cost to NALCOR. Once Muskrat Falls enters operation in 2020, up to 1.3 TWh could also be supplied on the LIL annually. The accumulated quantities of electricity transferred over the years would be accrued with a mutually agreed interest rate. The electricity owed would be returned after 2041. This method is calculated to bring an average value of a maximum of approximately \$100 millions per year to NALCOR. The electricity received would power Newfoundland Island at lower cost, help close some units of Holyrood earlier, optimize (fill up) the water levels in hydraulic reservoirs and potentially start sending contractual quantities of electricity to Nova Scotia using the recently operational Maritime Link. This resolves the winter peaking of Muskrat Falls and water management issues.

The second and principal method involves HQ purchasing future electricity produced at Churchill Falls with deliveries made only after 2041, but with payments made immediately to NALCOR. The accumulated quantities of electricity purchased over the years would be accrued with a mutually agreed interest rate. This method can be applied quickly, even before the LIL is operational. Large revenues to NALCOR of typically up to \$200 millions to \$300 millions per year can be generated. The magnitude of those revenues is mainly limited by the number of years required to return the electricity after 2041. For the above revenues and the above quantities of electricity exchanged, approximately 10 years of Churchill Falls' production

would be necessary. For more funds, the borrowed energy can be increased, and the return period increased accordingly.

The third method would involve selling some equity in the CF facilities that would take effect only starting September 01, 2041. With full use of the first two methods described above, selling of equity may not be necessary. Selling equity in CF can generate large immediate revenues to the province and would be used mainly to remove a specific higher interest debt. Selling assets or shares is a broadly accepted method of generating revenues for companies encountering short term financial difficulties. However, the difficult historic negotiations between the two provinces may make this option politically sensitive compared to exchanging or selling electricity. Selling of equity in Muskrat Falls or the LIL may not be as appealing to a buyer, compared to Churchill Falls' assets.

The value of the future CF's production after 2041 is very significant. Using this asset, NALCOR and the province of NL can elegantly resolve the current financial difficulties generated by MF. This would mitigate hardship to the population and industry. It would also demonstrate the Government of Newfoundland & Labrador's capability to elegantly resolve an acute financial situation.

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### Mr. Overton Colbourne

With such short time, I will get immediately to my point. The utility ratepayers of the Island of Newfoundland and the taxpayers of the whole provinces are facing the largest financial problem this province has ever had.

Although we have heard a lot about the low budget and cost overruns, the aggressive schedule and actual schedule slippage, poor management decisions and a litany of concerns of special interest groups, I have heard no discussion of the actual cost of repayment of the 12.7 Billion dollars (or whatever the number is) in loans, over a term of 57 years.

My comment is not on the fact of a term of 57 years, a number, that fifty years ago, my engineering economy textbooks warned against in decision making.

The mistake is made. It's done. We have to live with it or try to change it.

Besides the amount of the loan, and the repayment period, the other part of the problem is that there is insufficient revenue generated from the project, to meet the annual payments. So, that's the problem.

If you look at two numbers, the annual repayment of \$576 Million is short by about \$350 Million. So, the revenue is actually less than half of what is needed.

So, there are only two alternatives. One, increase the revenue, and two, decrease the debt.

To be honest, I would have accepted the 22 cents per kilowatt hour on my utility bill, if I thought that would have solved the problem. It wouldn't have.

That was a number thrown out there, to justify the so-called "rate mitigation plans", and deflect attention from the real problem which I have described, although very briefly. That's not my discussion, either.

The only solution is to decrease the debt, and consequently the repayment period.

The only way to decrease the debt is to sell off some of the assets.

I propose, SELL THE POWERHOUSE. I will buy it. For the rest of this discussion I will use the first person, "I" and "my" to refer to the purchase, but I can assure you I don't have Five Billion dollars. But imagine if someone did. Take five billion dollars off the debt, today. Now the debt becomes much more manageable.

What I don't advocate, and I want to very strongly emphasize, don't sell it to private utility company. It is, and will be even more so, much too valuable. It must remain in our own hands, as taxpayers and rate payers.

Some people have naively commented to me that we already own it. Well we don't, really. The banks do. And I don't want to own it the way it is said I own the highways and bridges. Highways and bridges don't make any money for me, and they wear out quickly.

I want to own the Powerhouse, just like I own my house. It will make money for me, and my heirs, directly, for a long time, while providing an immediate solution to the Province's debt problem in the bargain.

It can be done, quite easily.

With \$5 Billion taken off the Muskrat Falls debt, the \$12.7 Billion is immediately reduced to \$7.7 Billion, which is fairly close to the original estimates. In the early analysis it was understood that the project could pay for itself, with its own revenues. (I will not confuse the numbers with the so-called "equity" that the government claims to have in the project. "Equity" with borrowed money is equity in name only. The result on the province's debt is the same.

Similarly, I will not take into account savings on Holyrood oil consumption or operating costs of the Powerhouse. When comparing alternative solutions, there is no need to waste time on components that are common to all alternatives.

Therefore, in the forthcoming analysis, only the differences need to be compared. That is \$12.7 Billion debt versus a \$7.7 Billion debt.

So, by reducing the debt, it stands that the repayment period can also be reduced. I have used 25 years just to provide a number for annual payments. Perhaps 30 years is also appropriate. But the concept remains the same. It will still be a far cry from 57 years.

With a \$7.7 Billion debt, over 25 years, revenues from the sale of power, the shortfall in the annual payment in the first year is \$153 Million.

With the \$12.7 Billion debt, over 57 years, in the first year, the shortfall is \$350 Million.

The so-called "rate mitigation plan" presented to the public few months ago, assured the public the \$350 million shortfall could be accommodated. With that as a fact, then the \$153 Million should be all that more simple. I have not made the calculation, but it is likely that this can be accommodated through the oil savings, and "profit" from Bay d'Espoir, without having to affect the normal expenditures of the province.

With annual increases in power purchase price, similar to that seen in the past few years, the annual shortfall will decrease each year. By Year 15 the revenue should be able to meet the annual debt repayments, and by Year 20, will exceed it.

Which brings me to the question, "Why would anybody want to invest in the Power House, if not to immediately start turning a dividend?"

Although, it might be argued perhaps a few people will want to invest out of a sense of duty, or patriotism, described by Samuel Johnson as "the last refuge of a scoundrel," I prefer the definition of patriotism, as "holding elected officials accountable for their actions."

By investing one's own money, voluntarily, in the project we are telling he government we are not satisfied with how the project has been handled, or even their plan for handling it in the future, and that the investor/shareholder will be responsible for it, and pay for it.

I propose that for the first ten years, there will be no dividends paid on the shareholders' capital. That will make more money available for the repayment of the Transmission Line debt.

For the second ten years, dividend will be accumulated, but not paid out.

For the next ten years, the gross revenue will be split 50/50.

Thirty years is as long as any contract should be negotiated. Hydro projects are known to last much longer and are often referred to as having a perpetual life. Therefore, the original contract must have a re-negotiation clause. It would be easy to say, for the basis of an initial calculation, but a bit foolhardy to rely on it, that the 50/50 arrangement continue forever.

Where's the advantage?

First of all, the advantage accrues to all the taxpayer/ratepayers of the province. Instead of repaying a total of \$29 Billion to the banks, the amount is more like \$12 Billion, a considerable savings.

At the same time, over the first thirty years, the ratepayers will have paid the equivalent of the bank's interest to the shareholders, who are also ratepayers.

My calculation show that the amount paid to each shareholder, on a \$100,000 share will be about double an annual utility bill, for an electrically heated home.

An analogy would be that for a \$100,000 initial investment a shareholder will purchase a generator, which uses water for its fuel, requires almost no maintenance, will last a hundred years, and will provide electricity for two houses. Would you buy that generator?

Some people will question "no dividends for the first ten years?"

My suggestion for the source of this \$100,000 share is from a RRSP annuity. There is approximately a Trillion dollars locked up in RRSP's by about six million Canadians.

In the year that a Canadian turns 71, he is required to "unlock" the RRSP's and convert them to annuities. Of course, if he is foolish enough, he can cash it all in, and then pay the taxes as if it were earned income.

There are rules concerning the annuities, such as minimum annual withdrawals, which generally favour the recipient, assuming he lives a normal Canadian lifespan, and beyond. After age 90 the rules are not so favourable, as the government is getting itchy about its taxes, and wants you to die.

There are about 30,000 Newfoundlanders between the ages of 65 and 70. There are more than a million other Canadians in that age bracket.

If a person went to a bank today, and asked to withdraw \$100,000 from a RRSP, the bank would give him \$70,000 only, as the bank is required to withhold a 30 % tax. When tax time comes around, the recipient will likely pay more, depending on his tax bracket.

If he should die, without having withdrawn the RRSP's, the RRSP funds is considered income in the deceased's final year, which, if there are considerable funds in the account, puts him in a high tax bracket, leaving little for his heirs.

If you converted the \$100,000 to an annuity, and withdrew it over ten years, the tax paid will still be about the same, and the bank will have made money off your money, in the meantime. The government would still have waited ten years for the tax.

So my proposal is that the annuity be immediately converted to a share in Muskrat Falls Power House. With a stroke of his pen, Bill Morneau can change the annuity rules to allow this investment, just as the RRSP Home Ownership rules were recently changed to benefit the banks and CMHC.

The government will still collect its tax in the form of the dividend deferred on the shares for the first ten years.

The debt can be wiped out, meaning no interest to the banks. Revenue from Day1 of operation can be directed to the Transmission Line debt.

People willing to put their own money upfront, to pay for the Power House, and eliminate the massive interest payment that would be paid over the next 57 years, can do so by setting up a Co-op, under existing NL legislation, and pay their money forward to the project.

Hydro would continue to be the legal owner of the project, and the revenue would immediately accrue without paying it to the banks.

It might be possible to raise funds to pay off the entire debt, though I am not suggesting it now. Instead of all the revenue, and more, being paid to the banks, it would immediately start paying returns to those who paid off the debt.

Setting up a Co-op is a simple thing.

An added benefit to having Co-op shareholders is that if force the government to be open and transparent about its future dealings concerning Muskrat Falls. No more "done deals". The date 2041 is going to be a very important date to Muskrat Falls, especially with 37 years remaining on a mortgage that can't be repaid.

Why would a person invest his RRSP? The majority of RRSP annuities are not spent. They are left as taxable inheritances.

RRSP investment would be restricted to no more than 25% (say) of one's total holdings; the Feds could control that. (Investment outside RRSP's would also be welcome.)

The value of the dividends will continue to increase, for "our children and grandchildren. After 25 years, or so, the gov't or Hydro, can begin to buy back shares, at current value, from any who want to sell. Shareholders would be able to buy and sell their shares to new shareholders. The remaining shareholders continue to collect profit, at the same rate as NL Hydro.

How will you find 50,000 shareholders to invest in a Co-op to bail out Muskrat Falls Powerhouse? *TAKE CHARGE!* is an insert in every electric utility bill in this province. Very likely, every utility in the country has a similar insert. This can be used to promote the idea. About thirty years ago, or so, the same insert was used to promote the purchase of Fortis shares.

The biggest obstacle to be overcome will be to change the negative publicity around the Project to one with the positive aspect of valuable economic return to its shareholders.

The idea will have to be analyzed much more closely than I have shown. If the government were honest in its current discussions, they would perform that analysis right now, and present it as an alternative to the secret discussions already underway. Show it as an alternative to the so-called rate mitigation plans. Show the benefits and costs in an economic analysis. Show it on a *TAKE CHARGE!* insert.

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### Mr. William Brown

Commissioner Richard LeBlanc, thank you for the opportunity to meet you at the Muskrat Falls Inquiry - Public Consultation held at the MUN Battery Campus, July 30, 2019.

At that time, I commented that it was enlightening to me to observe that I may have been the only person present who had an optimistic view of the Muskrat Falls project.

I believed at that time, based on my limited knowledge of the various contractual obligations that had been made concerning the different parties involved, that there were "no negative financial attributes" in existence. But learning certain details of those contracts, I have found that such was not the case and that there were negative financial attributes in existence.

I have therefore concluded that as long as said negative conditions exist, there is no way that Muskrat Falls will survive. However, I have great confidence that if these facts became known to the participants involved, they would be quite willing to modify the contracts to be less negative and afford an opportunity to yield a positive overall result for all involved.

I am now re-working my model to reflect these changes and prove my assertion.

If you wish, I would be pleased to share the results with you or anyone else you want to have included.

I am working toward an August 18th, 2019, date to have it done and ready to discuss with or present to anyone that has an interest. I plan to complete it anyway for personal satisfaction and possibly publish it depending on the final result.

Let me know if you wish to discuss these results once they have been completed.

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### Ms. Fatima Hammond

I think that in 2019 there are some absolute truths: don't poison Indigenous people, do protect the environment and people should come before profits. It is shameful that this project is in direct contravention of several articles from The United Nations Declaration on the Rights of Indigenous Peoples. I specifically take issue that a culture that relies on the land for every aspect of their lives is being denied that essential relationship. For example: Labradorians living downstream from Muskrat Falls will be exposed to methylmercury poisoning, especially those who rely on country foods like fish and wildlife. Additionally, as a result of this fiasco the people of this province, most notably the persons living at or below the poverty line will suffer further hardship by having their electricity rates increased. Seniors deciding whether they can pay their bill or buy food was already a reality in this province. It is because of the disregard for people's basic needs and the destruction of the environment, there should be real inescapable consequences on those that made this mess. Identify the individuals who did not do their due diligence, ask questions, contest poor decisions and hid or ignored vital information. Provincial legislation ought to be passed preventing government from doing business with the persons responsible. Municipalities ought to prevent them being involved with development projects. Fines should be levied against them and their businesses, with the moneys collected used to diminish the cost overruns of their mess. Their behavior has been deleterious to the future of this province and they should be prevented from participating in it.

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### Mr. Paul T. Dunphy

In the interest of making one important point, let me say that the way this project was conceived, the way the residents were hoodwinked into believing it was a feasible project, and the resulting liability to NL'ers as a result of widespread incompetence on the part of the people that we as taxpayers entrusted to make informed and intelligent decisions on our behalf, someone should, .....let me rephrase, someone must be held accountable for the unacceptable behavior that led us down a path of paying more than twice what was estimated for this project. Many NL'ers were on board at the beginning when \$6B was the estimated max but had absolutely no control or input as the cost spiraled out of control to the point it is today. This is unforgivable and I believe those who proposed and subsequently supported this project, those that set it in motion and signed off on it knew NL'er would pay twice the price, yet they elected to move it forward for personal gain be it financial or otherwise. Penalties must be imposed on those that reaped huge financial gains at the expense of the taxpayers of this province and that does not rule out claw-back of severance and fees for service that are above a reasonable rate of compensation for work performed. Despite these people being in positions of power and wealth, they did us wrong so please set a precedent and let people of the world know NL'ers will not bear the brunt of this brutal "Newfie joke" this time round.

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### Mr. Keith Hollahan

I would like to personally thank those responsible for Muskrat Falls for the wonderful legacy that has been left to the taxpayers of NL.

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### Mr. Winston Fiander

The Muskrat Falls Inquiry shows us that a public inquiry is an effective way to uncover the truth about decision making on matters that significantly affect the lives of Newfoundlanders and Labradoreans. I

believe we should have a similar inquiry into how our fishery is managed. In particular I think an inquiry should delve into;

- Why after 27 years of moratorium, we still do not know why our cod stocks and many other fish stocks have been depleted (recently Dr. George Rose who has studied cod for decades is questioning DFO's approach to stock status).
- How licenses are allocated how quotas are allocated how processing licenses are allocated and rationalized province-wide who or what organizations influence decision makers.
- How does split jurisdiction (the feds being responsible for harvesting and the province processing)
  impact fishery management, etc. Fundamentally, we need to understand clearly how NL benefits
  from our fish resources and what do we need to do to male NL the principal beneficiary of the
  resource.

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