Introduction: Why are we here?

Before diving into the details of the Muskrat Falls project, it's worthwhile reviewing why we are here.

The most important reason for why we are here today is the Upper Churchill project constructed almost 50 years ago. In particular, we are here because of the failure of a power purchase agreement signed between Hydro Quebec and agents of the government of Newfoundland and Labrador. The sad history of this deal has seen billions of dollars in power profits leave the province.

That deal was not an inevitable deal. It was a deal that could have been avoided.

Perhaps if we had a Premier and government at the time that was more open to having their policies and projects questioned and scrutinized.

Imagine how different our history would be if we had taken the time and effort to place something as simple as an escalator clause on the price of power. What additional infrastructure and services would we have today? Where would our debt be?

If we have learned any lesson from the history of the Upper Churchill, we should have learned that there is no such thing as too much oversight or too much scrutiny.

Today we stand at a fork in the road looking at yet another major power deal – the Muskrat Falls project.

One thing that has been largely left out of the discussion is the return of the Upper Churchill power in 2041. Although it plays a prominent role in government's Energy Plan released in the Fall of 2007, Muskrat Falls seems to ignore it.

Nalcor's financial projections stretch out to 2067 because that's the time it will take to amortize the capital works of Muskrat Falls. But that is 26 years after we regain control of the 5,428 MW from the Upper Churchill. At that point we will have all the power we will ever need for centuries.

That is only 29 years away. So all we need to do is bridge the power needs between now and 2041. Our goal should be to achieve that as cheaply as possible in order to ensure that we always have access to the lowest possible cost power.

Therefore we should require that the financials be planned with amortization over 30 years, not 50. Then we can see if Muskrat Falls is worthwhile.

Muskrat Falls is a complicated deal with many aspects to it. It has been made more complicated by the way government and Nalcor has decided to proceed. It has become very difficult to see the true deal because of how information changes and shifts in official positioning depending on which criticisms are being addressed.

Today I'm going to address the major concerns which we have as the Office of the Official Opposition. I will divide my concerns into the following groups:

- Process for examination and review
- Questions on the demand side and Labrador
- Questions on energy pricing projections
- Questions on the Supply side

- Question on cost overruns/financials/export markets
- Impact of future land claims

Too many issues are deeply intertwined between those within your scope and those just outside your scope. I can't help that and I hope you will provide me with the latitude to cover the information I need to cover.

Section A - Process for examination and review

In an ideal world, this project would have been reviewed, without arbitrary constraints, by outside experts with no vested interests in the outcome. That includes this Public Utilities Board. Nalcor refers to these reviews as "cold-eye" or "independent".

Since the project was announced on November 18, 2010, there has been exactly one official independent unrestrained review of Muskrat Falls. That review was the Lower Churchill Generation Project Environmental Impact Statement produced by the Joint Review Panel.

That review was conducted by a panel of truly independent persons who heard from multiple points of view and gathered and evaluated a large amount of information from interested persons and groups.

Most important: the Panel did not rely exclusively on data supplied by Nalcor.

And what did they conclude? It's worth hearing the quotation in full:

"... the Panel concluded that Nalcor had not demonstrated the justification of the Project as a whole in energy and economic terms, and that there are outstanding questions related to both Muskrat Falls and Gull Island regarding their ability to deliver the projected longterm financial benefits to the Province, even if other sanctioning requirements were met."

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This is very important. If Nalcor could not convince the independent panel that this project could not be justified in energy and economic terms, then it was up to government and Nalcor to go back to the drawing boards and reconsider their plan.

They have not. Instead they have just pushed the project forward without change.

Since then there have been two other publically released reports. The first was from Navigant.

We believe this was a seriously flawed report which was in no way "independent" or "cold-eyed".

First, Navigant has had a long standing prior relationship with Nalcor with many contracts awarded to them over the last decade.

But more importantly, the report is based on a narrow scope of review mandate which avoids looking at areas of great public policy importance. For example, the report did not look at conservation/demand management, use of alternatives such as offshore gas or cash flow projections and out of province power sales.

Similar criticisms can be made for the work commissioned by the PUB from Manitoba Hydro International. This report is also circumscribed in scope by the mandate provided to the PUB.

The Public Utilities Board is one of the most important regulatory bodies in the province. Its decisions affect everybody in the province who turn on electric lights or dial up their electric heat.

The first and primary mandate is to regulate the prices of utilities such as electricity according to the Electrical Power Control Act. That Act states that the:

". . . production, transmission and distribution of power in the province should be managed and operated in a manner that would result in power being delivered to consumers in the province at the lowest possible cost consistent with reliable service"

Yet the PUB has been asked by government to conduct hearings which specifically exclude the issue of impact on ratepayers.

The people of the province have to rely on the PUB to carry out a independent review of the effect of Muskrat Falls on electricity rates and to look at the impacts of alternative sources of power. Otherwise we will never know if we are getting the lowest possible rates for the people and businesses of the province.

We cannot afford to rely exclusively on the non-objective and biased perspective of Nalcor and their allies.

This is the fatal flaw in the review process for this project. Once the decision was made to build a smaller dam at Muskrat Falls combined with 1000's of km of transmission to Nova Scotia, all other alternatives were eliminated from the discussion.

It's also worth noting that in a project as complex as this, the devil is ion the details. Currently, Emera and Nalcor have announced an indefinite delay in producing the legal text to guide the execution of this project. We have to question how it is possible to truly examine the impact and reality of this project without access to those legal texts.

Section B – Demand side discussion

Government has made every effort to simplify this complex discussion to a series of simple questions:

a. Do we need the power?
b. If so, what do we do about it?

I'd like to address the first part of this now. I'll address the second part later on.

Since it was first announced, Government and Nalcor have increased the urgency in moving forward with Muskrat Falls. Minister Kennedy has even been quoted that the island will start experiencing brownouts by 2015 unless we build Muskrat Falls.

Let's keep in mind that 2015 is only three years away. If Kennedy's statements are true, then we are destined to experience brownouts because there is no reasonable way that Muskrat Falls will come on line in time. But let's leave that bit aside.

Overall, Nalcor claims a steady increase in demand of .8% year over year.

Here's the problem with that statement: there is no independent authority confirms that fact. On the contrary, there are several independent authorities who contradict that scenario.

The Joint Review Panel, for example, didn't believe it and recommended further study to confirm this.

It's important to note that we have lost two major industrial customers in the last five years (Stephenville and Grand Falls mills). Although Long

Harbour will be a new drain on the provincial grid, that power has already been accounted for.

Second, the overall population has remained relatively stable and is projected to stay that way. This is important because demographics drives power demand. In the medium level population scenarios out to 2025, we are looking at a population which stabilizes at around 528,000. This is compared to 514,536 according to the most recent 2011 census.

And that population will be much older than the population we have today so more people will be living in smaller spaces in higher density housing than we see today. That means a reduced energy demand.

Third, Nalcor has completely ignored the impact of conservation and demand management. The only statement from Nalcor on this issue is that they have tried to bring in power conservation but people have not been interested.

In fact, Nalcor has not tried very hard. NL Hydro commissioned Marbek Resource Consultants to assess conservation and demand management potential for the province. They found that current conservation and demand management budgets account for just 0.75 percent of utility revenues compared to a recommended level of 1.5 percent. Newfoundland and Labrador lags behind the rest of Canada spending just $2.22 per capita on conservation and demand management compared to $29.02 in Quebec and $40.63 in British Columbia.

Dr. Jim Feehan, a respected economist at Memorial University argues that a program to half the growth in power consumption would eliminate Nalcor's claimed cost advantage for Muskrat Falls. He advocates a program of smart meters, time-of-day pricing and electricity pricing that better reflects the cost of electricity production. He concludes that sanctioning Muskrat Falls now would be "premature and imprudent".

It's worth contrasting government's claims of a hypothetical ever-increasing island demand to the very real increasing power demands in Labrador.

The major customers for electricity in Labrador are new and expanding mining projects. IOC, for example, is proposing to double their output through their Genesis expansion. This is estimated to require a minimum additional 200MW of energy. On top of that, there are several other new mining operations in various stages of development. Even Minister Kennedy has stated he sees new industrial demands in Labrador requiring 800-900MW of additional power.

Yet the current Muskrat Falls project has made no allowances for these needs, either in generation or in transmission.

Additionally, there are the power needs to the isolated communities on the north and south coasts. These currently pay for expensive diesel generation. In the case of the south coast communities, they will see transmission lines carrying clean hydro power passing them by.

It is unreasonable to extract hydro power from Labrador without providing the benefit of directly availing of that power.

Section C – Price Projections discussion

If there is any part of the Nalcor proposal that is based on speculation, it is surely their projections on future energy prices. Nalcor and government justify Muskrat Falls by stating that the price of oil will be ever increasing - up to levels around US$200barrel. Therefore we need to get off Bunker C and onto hydro because then prices will be cheaper and more stable.

Nalcor says they base their projections on PIRA numbers. PIRA Energy Group is an international energy consulting firm specializing in global energy market analysis and intelligence. They are a respected international publisher of future energy prices. Nalcor uses PIRA projections as a primary justification for moving forward with Muskrat falls.

However. . . If you open the page of the provincial Energy Plan, you will see that the price for West Texas Intermediate was projected to be US$60 per barrel in 2012.

Yet this morning, the actual price of WTI is listed at around $105.

The same Energy Plan document also provides price projections for natural gas. According to the plan, the price of natural gas this morning should be around US$8.00MMBtu.

Yet according to the US Energy Information Administration, today the price is currently hovering around US$2.5MMBtu

Both of these Energy Plan projections are numbers derived from PIRA projections. Remember that this energy plan, released in Fall 2007, is the basis for all energy policy in the province, including the prime justification for Muskrat Falls

When you look at what PIRA said just 4.5 years ago that prices will be today, you see great discrepancies. It's clear that their projections simply don't hold up.

What Nalcor does not explain is how PIRA is constantly revising their future prices to take into account the most current information. As current information changes, so do their projections.

So energy projections published in 2012 for oil prices in 2025 will not be the same as energy projections published in 2007. And those energy projections will be different from the projected prices they publish in 2017. These projections are the best guess based on circumstances today. As circumstances change, so do the projections.

Nalcor would have you believe that oil price **projections** are oil price **predictions**. They are not.

The fact that the projected prices for oil and gas for today as stated in the energy plan from 4.5 years ago are so far off shows how dangerous it is to rely on them

It is reckless to build a $6.2B project on such a flimsy basis.

Section D – Supply Side discussion

Nalcor's plan is to build an in-feed from Labrador to supplement the island's current power supply which is derived from several hydro facilities and Holyrood. Holyrood, we should note, is used only part of the year.

Let me say something about the Holyrood facility. We agree that would be better off without it if we can do without it. We are not convinced that this $6.2B project is the right way to replace it.

Further, there are conflicting reports on exactly what will happen to Holyrood in the long run. We have been advised by experts in transmission that Holyrood will have to stay operating, even under the in-feed scenario. One reason, we are told, is as emergency backup for the Avalon Peninsula. Another reason would be to balance the load across the system.

So we are not exactly sure what is going to happen to Holyrood or what other similar thermal options might replace it in the future. We note that the Manitoba Hydro report indicated that in 2067, the province's energy generation will be 37% thermal thanks to seven new thermal generation facilities. If that's the case, then it flies in the face of government's desire for the province to go green.

Let's leave that issue aside.

Minister Kennedy states that Muskrat Falls is the least cost option to supply the new power we will need. What he really means is that it will be the lower cost option between his favored Muskrat Falls project and an artificial isolated island option.

The reason I say the isolated island option is artificial is because that option was designed to compare badly with Muskrat Falls. There are other, more reasonable isolated island options which are more economical and more realistic than the one put forward by government.

First, the option of natural gas has been dismissed out of hand. We have the option of bringing it to the island and burning it at Holyrood. It is much cleaner and cheaper than Bunker C.

We have literally trillions of cubic feet of natural gas, roughly 60 tcf by some estimates, sitting off our shores. And not just offshore. Nalcor's $20M worth of dry holes at Parson's Pond may not have found oil but they did find natural gas. Our oil projects, notably White Rose, use natural gas to reinject pressure in their wells. But they only do that because they choose to do that; we could bring it onshore instead.

Nalcor claims that we can't look at natural gas because we don't have the infrastructure to bring it onshore. But using that logic, we might as well stop talking about Muskrat Falls because we don't have that infrastructure in place either!

Dr. Stephen Bruneau of Memorial University has done reports and presentations on bringing natural gas onshore. In 2005 he estimated that, in his expert opinion, if we recovered only 60% of the natural gas available at Hibernia, Terra Nova and Whiterose, we could run a Holyrood sized plant at full capacity, 365 days a year for over 100 years. That gas could be fed to the island through a 12 in diameter pipe at 3000 psi for approximately US$300M.

Remember that we now own equity stakes in this energy.

Yet today, this option is completely dismissed out of hand by Nalcor and government. Yet they have commissioned no studies to justify that position.

While the shale gas revolution tears through North America, we are keeping our eyes closed to those possibilities. It is irresponsible for a vertically integrated energy utility like Nalcor to ignore these possibilities.

Section E – Discussion on cost overruns/financials/export markets

I will address all the financial issues in one section because I believe they are all closely related.

There have been many different descriptions of how this project will affect ratepayers. I would like to address three primary factors which may determine how Muskrat Falls will affect the way ratepayer's bills change.

First are cost overruns on the project. According to the Nalcor/Emera termsheet, we are responsible for 100% of overruns on all parts except the Maritime Link. On the Maritime Link we are responsible for 50% of overruns despite the fact that we have no management control over that construction.

Nalcor's numbers are based on their certainty that their 15% built-in cushion for cost overruns will cover any eventuality.

They are gambling with the pocketbooks of ratepayers

The World Commission on Dams looked at 125 large dam projects around the world. They found that cost overruns average 56% more than initially budgeted. On Muskrat Falls, that brings the project to a potential cost almost $10B.

Where will that overrun come from? Right now it's hard to tell because of the minimal financial information provided by Nalcor. For example, in their current potential overrun of 15%, we don't know how much of that might be the projected results of higher costs of material, labour, design, or some other factors.

However, one thing is for sure: because Muskrat Falls capital costs are based on recovery from ratepayers, it is we who will be stuck with the bills.

The other aspect which will determine how hard Muskrat Falls will hit ratepayers is the potential export markets. Again, this is an area which lies outside the mandate of the PUB but I ask for your indulgence.

Because capital recovery will be based on ratepayers, then the more we sell to other markets, the lower our potential rates. This project is different from just about every other Churchill Falls power project because other proposals were based on income from outside ratepayers to pay the bills.

Nalcor and Government have been all over the map on this issue. They first tried to sell the project by talking about export markets. Then they changed their tune and talked about how this project was to address local energy needs.

The reality is that this might be the very worse time in 40 years to try to export energy into the US. Between their structural weak energy demands due to economic slowdown, the easy availability of shale gas for heating and power generation and the glut of hydro energy provided by Hydro Quebec, wholesale electricity prices throughout the Northeastern US are at very low levels.

There will be no recovering of Muskrat Falls capital costs from that market.

As for Emera, we are providing Emera with power for 35 years at no cost in return for constructing the Maritime Link.

There has been much public discussion about whether this means Emera will receive “free power”. We have claimed that Emera will receive free power while Nalcor has claimed that Emera will be paying $1.2B for it.

Either way, the power will be transferred from this province to Nova Scotia with no revenue associated with it returning back to this province.

If power rates drop to nothing, Emera will pay no less money to Nalcor. If power rates skyrocket, Emera will pay no more money to Nalcor.

This is a problem; we are providing Emera with power where the cost is not dependent on prevailing energy rates. If we have learned nothing else from the Upper Churchill, it’s that escalator clauses are essential to fundamental fairness. Not addressing this issue now is a recipe for financial disaster in the future.

Finally there is the issue of the impact of future land claims

A key initiative which has allowed the Muskrat Falls project to move this far has been the resolution of conflicts with some of the Labrador aboriginal communities though the New Dawn Agreement.

Among other things, this agreement with the Innu communities resolved land conflict issues related to Muskrat Falls and provided benefits in terms of construction job guarantees and an equity stake in the project. Nalcor and government have praised this deal as being a final resolution to aboriginal claims which might impact Lower Churchill development.

However, there are still unresolved issues with the NunatuKavut, formerly known as the Metis Nation.

They too have land claims outstanding and they too will be adversely impacted by the Muskrat Falls development as things currently stand. So far there has been no recognition of their claims by Nalcor despite that fact that those claims may have a serious impact on the financials and progress of this development. Ignoring this community is to disregard potentially serious disruptions to Muskrat Falls planning and execution.

And there is no doubt that such disruptions will lead to cost overruns, delays and more costs to ratepayers. Overall, we feel comfortable in stating that there is every possibility that electricity rates in this province will double.

Section E – Conclusions

The Official Opposition is in favor of developing the Lower Churchill, both Muskrat Falls and Gull Island after a proper and complete process of due diligence. We do not see due diligence being performed in this case.

We are concerned that the process to examine Muskrat Falls has been limited to an artificial choice between the Nalcor preferred option and an isolated island option alternative which is clearly designed to be problematic and unacceptable. Further, it is unreasonable to expect this review to be completed in the short time allowed by government.

Any review of Muskrat Falls should be done in the context of all possible alternatives welcoming inputs from credible and respected points of view without artificial deadlines.