

From: [REDACTED]
To: [Admin](#)
Subject: Submission - Terms of Reference Commentary
Date: Thursday, February 15, 2018 10:55:01 AM
Attachments: [MF Inquiry TOR Commentary EGHollett.pdf](#)

Attached please find a pdf version of my submission in response to the call for comments on the Inquiry's terms of reference.

The paper is less than 20 pages of typed, double-spaced text in a 12 point font. There is an appendix, which consists entirely of paragraph four of the Terms of Reference. There are footnotes, some of which include live links that were active at the time of submission.

The paper consists of an introduction, a discussion of specific issues and a set of recommendations. There is a table of contents.

I have not included a biography, CV, or similar statement of background but I can do so if this is needed. I make this submission as a private citizen not in my capacity as a senior researcher fellow with the Atlantic Institute of Market Studies.

My contact information is as follows:

Edward G. Hollett

[REDACTED]
St. John's NL

[REDACTED]

Tel - 709-[REDACTED] 706

Cell - 709-[REDACTED] 072

Twitter - [REDACTED]

Email - ed_hollett@bondpapers.com or [REDACTED]

--

Edward G. Hollett

Sir Robert Bond Papers

<http://bondpapers.blogspot.com>

709-[REDACTED] 072

Winner of the Canadian Blog Award for Best Political Blog in Canada 2010 and 2011

Muskrat Falls Inquiry Terms of Reference

OBSERVATIONS, COMMENTS, RECOMMENDATIONS

EDWARD G. HOLLETT

Muskrat Falls Commission Terms of Reference

Contents

Introduction.....	2
The Muskrat Falls project.....	3
Alternatives and Sanction.....	5
Cost Escalation.....	13
The Public Utilities Board Exemption	14
Recommendations	17
Appendix A: Extract from Terms of Reference.....	19

Muskrat Falls Commission Terms of Reference

Introduction

The Terms of Reference for the Muskrat Falls Inquiry describe the subject of the inquiry in a way that does not conform to the actual history, management, and development of the project. This creates several challenges for the commission such that it could be difficult to fulfill some portions of its mandate adequately using the Terms of Reference as written. One example is the forensic audit, which has been tasked with reviewing aspects of sanction. As the discussion below notes, the contractor would be looking in the wrong place for the wrong issues based on the way the Terms of Reference are written.

The following discussion will reconcile the discrepancies and suggest an interpretation that would allow the Commission to answer the questions put to it even if the existing wording may be inexact, inaccurate, or simply wrong.

The Terms of Reference¹ list four areas of inquiry for the Commission. They are described in paragraph four and detailed in four sections lettered a through d. 4 (a) deals with an examination of alternatives to Muskrat Falls prior to sanction (December 2012). 4 (b) deals generally with cost escalation after sanction. 4(c) deals with the exemption of the Muskrat falls project from the jurisdiction of the Public Utilities Board. 4(d) concerns whether the government was fully aware of the risks associated with the project prior to sanction.

This paper will discuss core issues to all four issues in the Terms of Reference, while generally addressing the four issues in the sequence presented in the Terms of Reference.

¹ See Appendix A
E.G. Hollett
Page 2 of 20

Muskrat Falls Commission Terms of Reference

The Muskrat Falls project

The Terms of Reference define the Muskrat Falls project using the definition added to the *Energy Corporation Act* in December 2012.

This is misleading and represents an interpretation to events applied after they occurred. The more reliable approach would be to view the project as it evolved after 1998.

Muskrat Falls is one portion of the Lower Churchill Project as redefined in 1998 to include a transmission line to Soldier's Pond.² Nalcor's website currently follows this approach in that it describes Muskrat Falls as one of the constituent elements of the Lower Churchill project.³ The same is true of the registration for environmental review in 2006, which also included a familiar discussion of how output from the project would be allocated: the Lower Churchill "Project will be developed to meet future power requirements in the province and will generate revenue from sales outside the province. *The portion of the power that is more than provincial requirements will likely be exported, given the magnitude of the generating capacity relative to forecasted provincial load growth.*"⁴ [Emphasis added]

The italicised sentence is an understatement since none of Nalcor's estimates have ever suggested the 3,000 megawatts of generating potential in the Lower Churchill would ever be

² See "Lower Churchill Hydroelectric Generation Project," registration pursuant to the *Newfoundland and Labrador Environmental Protection Act*, Project Description pursuant to the *Canadian Environmental Assessment Act*, November 30, 2006 (http://www.mae.gov.nl.ca/env_assessment/projects/Y2010/1305/registration.pdf) and "Lower Churchill Project Design Progression (1998-2011), Nalcor Technical Note, 29 July 2011, Rec. No. 200-120141-00018, <http://www.pub.nf.ca/applications/MuskratFalls2011/files/exhibits/Exhibit30.pdf>.

³ Nalcor website for Lower Churchill project: <https://nalcorenergy.com/nalcor-operations/lower-churchill-project/>. In other places, Nalcor's website actually intermingles the Muskrat Falls project and the Lower Churchill project as if they were synonymous. This reflects the elastic nature of the words used about the project(s).

⁴ Environmental Registration document, page 14.

Muskrat Falls Commission Terms of Reference

absorbed by demand within the province. Thus, the Lower Churchill project has been chiefly identified, as was Churchill Falls, as a project for export, first by BRINCO⁵, then Newfoundland and Labrador Hydro, and later Nalcor. The 1998 version of the Lower Churchill project focused on Gull Island and a transmission line to the island with Muskrat Falls considered as a subsidiary project that Newfoundland and Labrador Hydro would pursue, if necessary, to meet any growth in domestic needs.⁶ This is essentially the version of the Lower Churchill project inherited by the Williams administration in 2003 and announced in 2006 as a go-it-alone option for the provincial government through its new energy corporation.⁷

Priority for development within the project has traditionally been Gull Island.⁸ This is the larger and more lucrative of the two dams. At some point in late 2009 or early 2010, Nalcor shifted Muskrat Falls to become the priority for development within the Lower Churchill project. This appears to be related to a lack of sales despite repeated, publicly-reported efforts to self-power to New England, Ontario, and the Maritimes. This change in construction order is marked by the announcement in November 2010 of an agreement with the Government of Nova Scotia and Emera. This was the first time Nalcor or its predecessors had considered developing Muskrat Falls first since 1980. Emera would build a connection to Nova Scotia in exchange for a free block of electricity from Muskrat Falls. Nalcor would build a generating plant at Muskrat Falls as well as a transmission line to the island as proposed in 1998. Emera

⁵ British Newfoundland Company (BRINCO) was a corporation granted rights by the Government of Newfoundland and Labrador in the 1950s to develop resources in Labrador. The history of the company is presented in Philip Smith: *Churchill Falls: the story of BRINCO*, (Toronto: MacMillan, 1976).

⁶ This comes from interviews with several former premiers and energy ministers.

⁷ LCP announcement 2006

⁸ Government of Newfoundland and Labrador, "Why not build Gull Island First?", (2013) <https://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/Report-Why-not-develop-Gull-Island-first.pdf>

Muskrat Falls Commission Terms of Reference

became a partner in the Labrador Island Link.⁹ After November 2010, however, discussion within Newfoundland and Labrador routinely omitted any reference to the costs of the Maritime Link in cost estimates for what became known colloquially as Muskrat Falls.

Alternatives and Sanction

Paragraph 4 (a) of the Terms of Reference¹⁰ directs the Commissioner to examine the options reviewed by Nalcor “that informed Nalcor’s decision to recommend that the government sanction” the project. Paragraph 4(d) discusses the adequacy of information provided to government before it sanctioned the project.

Proper consideration of these terms requires a clear understanding of four points:

- What is sanction?
- What, if any alternatives did someone examine before “sanction”?
- Who made the decision?
- When did “sanction” take place?

The project referred to in the paragraph is Muskrat Falls, although, in light of the foregoing discussion, it should actually put Muskrat Falls in the context of the larger project. Indeed, when one examines the term “sanction” and the role it played, this larger relationship is not only evident but crucially important.

Sanction is not a term defined in the Terms of Reference nor is it in any legislation connected to the Muskrat Falls project. However, Nalcor’s final submission to the 2011 Public

⁹ 2010 announcement.

¹⁰ See Appendix A

E.G. Hollett

Page 5 of 20

Muskrat Falls Commission Terms of Reference

Utilities Board review provides both a definition and a context for the term. Simply put, “sanction” is one of a series of points on a timeline that begins with commencement of the project and concludes with commissioning and commercial operation. Sanction is **not a point in time** but a process or part of a process. “Nalcor uses the decision gate process, ... to demonstrate that an acceptable level of readiness has been achieved to progress the project through a decision gate. Prior to each decision gate, Nalcor engages in a thorough assessment and independent project reviews are completed before a recommendation is made to Nalcor’s Board of Directors and Shareholder, the Government of Newfoundland and Labrador, on whether to proceed [to the next phase of development or construction]. There are four gates in the Lower Churchill (Muskrat Falls and Labrador-Island Transmission Link) projects up to, and including first power:

- DG1: Approval to proceed with concept selection
- DG2: Approval of development scenario and to commence detailed design
- DG3: Project sanction
- DG4: Approval to commence first power generation¹¹

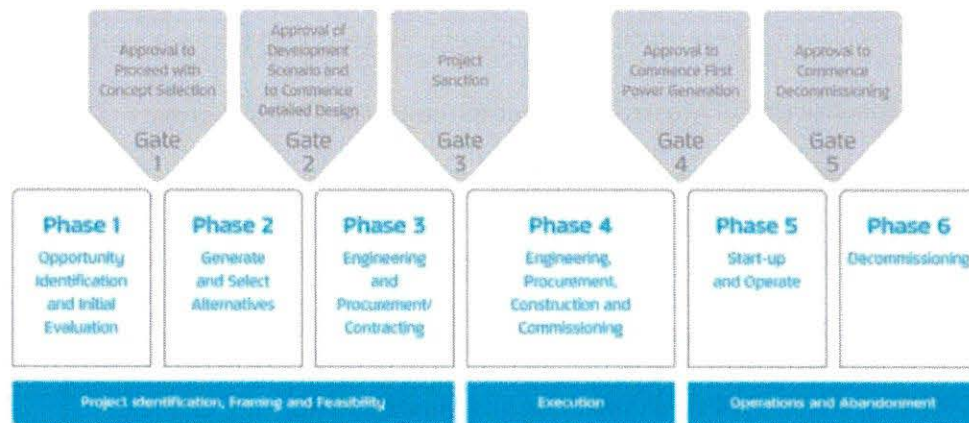
The following chart came originally from Nalcor but was included in Manitoba Hydro’s presentation to the same Public Utilities Board Review.¹² It illustrates the work undertaken in each phase and the location of the review periods or decision gates.

¹¹ “Nalcor’s Final Submission to the Board of Commissioners of Public Utilities with respect to the Reference from the Lieutenant-Governor in Council on the Muskrat Falls Project,” 02 March 2012, <http://www.pub.nf.ca/applications/MuskratFalls2011/files/submission/Nalcor-FinalSubmission-Mar2-12.pdf>

¹² <http://www.pub.nf.ca/applications/MuskratFalls2011/files/presentation/MHI-Presentation-Feb15-12.pdf>

Muskrat Falls Commission Terms of Reference

- Decision Gate 3 (DG3): Final check and confirmation that the investment decision is well founded (project sanction).



Source: Nalcor's Final Submission, Volume 2, page 35

February 15, 2012

Project Screening and Cost Estimating

20

Paragraph 4 (a) of the Terms of Reference implies that sanction was a specific event.

There is, arguably, a popular understanding of sanction as a specific decision whether to build a specific project. This impression comes quite naturally after witnessing an event such as the announcement of sanctioning held on December 17, 2012 in the main lobby of the Confederation Building. "It is my pleasure and honour as your Premier and as a Newfoundlander and Labradorian," said Kathy Dunderdale, "to officially sanction the Muskrat Falls project."¹³ Nalcor also indicates on its official website for the project that "the Muskrat

¹³ "Speaking Notes, Premier Kathy Dunderdale, Muskrat Falls Sanction", news released issued by the Government of Newfoundland and Labrador, 17 December 2012, retrieved 31 January 2018, <http://www.releases.gov.nl.ca/releases/speeches/2012/1217s01.htm>

Muskrat Falls Commission Terms of Reference

Falls project was sanctioned by the Government of Newfoundland and Labrador in December 2012, and construction is expected to take five years to complete.”¹⁴

While these comments suggest a specific decision, the description of a decision gate approach used by Nalcor is very much one of process. Note as well that it is a process that applied not to construction of Muskrat Falls but to the Lower Churchill project. The entire project, that is, the LCP, proceeded through DG1 sometime in 2006. What occurred in November 2010, by the implication of Nalcor’s presentation is that the entire project proceeded through DG 2 in November 2010, even though the actual construction discussed subsequently is clearly limited to the small dam at Muskrat Falls.

It describes a series of actions that culminate in the completion of a project. Each gate, including the one called “sanction”, is a time at which those managing the project can assess progress toward the next phase along a continuum. Sanction itself seems to denote merely that the project has reached a stage of development where construction may begin but not one in which the entire project may simply come to a halt.

Put another way, sanction does not appear to be a strategic decision-point. It appears to be a tactical one that could be attained earlier or later, depending on the factors that must be completed before the project enters the next phase. Implicit in this understanding of the concept of “sanction” then, is that the consideration of alternatives happened at some point prior to “sanction.”

¹⁴ Lower Churchill Project, <https://nalcorenergy.com/nalcor-operations/lower-churchill-project/>
E.G. Hollett
Page 8 of 20

Muskrat Falls Commission Terms of Reference

This is clear from the diagram. A consideration of **alternatives** supposedly took place prior to Decision Gate 2, that is before November 2010. Nalcor's presentation to the Public Utilities Board review confirms this. At the PUB review, which took place well before DG 3, Nalcor indicated that it had considered a single alternative to proceeding with construction of some - or all (it is unclear which) - of the Lower Churchill project.

There is no indication Nalcor ever examined any other alternatives except the one, which was essentially to build the project or not. Nalcor produced nothing at the PUB review in 2011¹⁵, after it had already decided to build Muskrat Falls in 2010. A year later, at the time of sanction and in December 2012, the provincial government produced a series of short papers dismissing potential alternative sources of electricity for domestic needs. These all date after the decision to proceed and appear to have to be produced solely as part of the political confrontation that unfolded in late December 2012 as the project passed through DG 3. In other words, they are *ex post facto* rationales for decision already taken,¹⁶ not work that was completed before the decision to proceed with the Lower Churchill project in either 2006 (DG1) or in November 2010 (DG2).

As a last point on the issues of alternatives and sanction, consider the statements contained in the official news release from November 2010 that announced construction of the Lower Churchill project. It bears the headline "Lower Churchill project to become a reality."¹⁷ The first sentence indicates that the announcement made was "[s]ignalling the commencement

¹⁵ Nalcor did present a consultant's report from 2001 prepared for the provincial energy department that described the theoretical development of offshore natural gas using a subsea pipeline.
<http://www.pub.nf.ca/applications/MuskratFalls2011/files/exhibits/Exhibit108.pdf>

¹⁶ <http://www.releases.gov.nl.ca/releases/2012/nr/1109n05.htm>

¹⁷ <http://www.releases.gov.nl.ca/releases/2010/exec/1118n06.htm>

Muskrat Falls Commission Terms of Reference

of the Lower Churchill project...”. The news release also describes Gull Island as the second phase of the project. There is no hint of hesitation or that there may be a subsequent decision not to proceed.

The same news release also mentions alternatives: “Hydro evaluated alternatives to develop new generation sources. Hydro assessed alternatives and found the Muskrat Falls project with a transmission link to the island to be the least cost alternative.” In hindsight, we know that the Lower Churchill project team only considered one alternative to proceeding with the project. This conclusion – that Nalcor had not examined alternatives – is borne out by the joint environmental review. In a letter dated 26 January 2010¹⁸, that is, the better part of four years after the project had commenced, the review panel wrote to Nalcor seeking further information from the company about the Lower Churchill project. In an attachment, the panel noted that “the Proponent’s response” to a request for a description of alternatives “was general in nature and did not adequately address the requirements of the [environmental impact study] guidelines.”

The joint panel had requested “an evaluation of thresholds for the economic viability of the chosen alternative and considerations respecting the timing of phases and components of the Project, indicating under what circumstances a change in economic conditions may influence selection of the preferred alternative.”¹⁹

¹⁸ Joint Review Panel to Nalcor, 26 January 2010, <http://www.ceaa.gc.ca/050/documents/41035/41035E.pdf>

¹⁹ JRP to Nalcor, 26 January 2010, page 4

Muskrat Falls Commission Terms of Reference

The panel's final report suggests Nalcor did provide some additional information on alternatives.²⁰ Interestingly, the report spends considerable time describing alternatives to Muskrat Falls as a means of supplying domestic electricity needs. In hearings held in St. John's, Nalcor vice-president Gilbert Bennett continually referred to the entire Lower Churchill project, with its 3,000 megawatts of capacity as the lowest cost alternative to meet demand. He noted that the project also provided considerable revenue from export.²¹ Again, these comments were made *ex post facto*, that is, after some individual or organization had taken a decision to proceed with construction of the project. We should also not lose sight of the fact that Bennett's comments were not about meeting domestic demand but about demand for electricity generally. We should also note that the joint review did not initially find, in January 2010, that Nalcor had shown there was such a demand.

As certain as the Terms of Reference or Nalcor statements may be about **who decided** to sanction the project, even that issue is as unclear as the other concepts discussed thus far. Kathy Dunderdale was emphatic in 2012 when she stated publicly that "it is *my* pleasure and honour as your Premier and as a Newfoundlander and Labradorian, to officially sanction the Muskrat Falls project."²² This was an odd statement at the time, given that changes to the Energy Corporation Act made a few days earlier expressly separated the project from the Crown. In making agreements for the construction of Muskrat Falls, Nalcor and its subsidiaries are not to be considered agents of the Crown. Yet, the Premier, the first minister of the Crown, made a statement that she had approved the project personally.

²⁰ Joint Review Panel final report, <http://www.ceaa.gc.ca/050/documents/53120/53120E.pdf>

²¹ ARP hearings, 04 August 2011, p. 18.

²² Speaking Notes for Premier Kathy Dunderdale, Muskrat Falls Sanction, December 17, 2012
<http://www.releases.gov.nl.ca/releases/speeches/2012/1217s01.htm>

Muskrat Falls Commission Terms of Reference

That may have just been rhetorical flourish just as the announcement of “sanction” itself was a show for the cameras more than an actual decision taken by anyone. All the same, one might expect there to be some sort of government directive to give legal support to any action. There don’t appear to be any. There are no Orders in Council produced since 2008 in which the Lieutenant Governor-in-Council made any decision that could be characterised as approving, ordering, or otherwise directing Nalcor to construct the Lower Churchill project or Muskrat Falls. There is one order from the time of sanction, issued in early December 2012, which transfers a plot of land at the Muskrat Falls site from the Crown to Nalcor.²³ There is an Orders in Council setting up subsidiary corporations related to Muskrat Falls²⁴, and there are others that give effect to the federal loan guarantee²⁵. But there are none that could be considered an express direction to proceed with the Lower Churchill since 2008.

There may be decisions taken by the Nalcor board of directors. After all, the Lower Churchill project is supposed to be undertaken by the energy corporation and its subsidiaries. They have not been made public. But if Nalcor’s board itself took all the crucial decision, then the role played by the provincial government would be decidedly unclear in light of all the other comments by both government and Nalcor and the Terms of Reference. It would also contradict the very open *de facto* reporting relationship that has persisted since 1998 between the chief executive of Nalcor and the Premier’s Office about the Lower Churchill project.

²³ <http://www.exec-oic.gov.nl.ca/public/oic/details?order-id=5963>

²⁴ <http://www.exec-oic.gov.nl.ca/public/oic/details?order-id=5542>

²⁵ OC 2013-342 to -348, -351, -354, and -355 all dated 29 November 2013 http://www.exec-oic.gov.nl.ca/?apply_table_filters=1&keyword=muskrat+falls&order_number=&order_date_year=&order_date_month=&order_date_day=&department=&statute=&order_text=

Muskrat Falls Commission Terms of Reference

Who decided? What did they decide and when? And about what project or aspect of the project did they decide?

All of these are critical questions for the Commissioner. All are crucial questions to understanding how the project wound up in the state it is in. None of them have clear answers although the available record suggests in what direction one must look to find answers.

Cost Escalation

Paragraph 4 (b) asks the Commission to explore and explain the reasons for cost escalation after December 2012 (sanction). To address the escalation issue fully, and in light of the foregoing discussion, the Commission should consider using Decision Gate 2 in November 2010 as a baseline. The Commission may decide to start even earlier, at Decision Gate 1 is as good a place as any to start.

There are three reasons for counting from November 2010 onward:

First, it represents the earliest public estimate of the cost of the Muskrat Falls phase of the whole project. (\$5.0 billion)

Second, the decision to reverse the construction order of the dams likely had an impact on overall cost. Public comments by former Premier Roger Grimes as well as interviews conducted by the author with former premiers and energy ministers suggest that Nalcor and its predecessors had not devoted as much attention to Muskrat Falls as it had to Gull Island. As such, it appears that Nalcor may have launched the Muskrat Falls phase of the Lower Churchill project with inadequate information on major issues. The current location of the dam, for

Muskrat Falls Commission Terms of Reference

example, is not the one originally proposed. It had to be physically moved and enlarged because of information about the site discovered after 2010.

Similarly, Nalcor only resolved the issue of the North Spur during construction rather than giving it attention prior to deciding to build the second phase in November 2010. This fix-it-as-we-go approach may have contributed to what some anecdotal comments have pointed to in the very large number of change orders involved in this project compared to others.

Third, one of the earliest and most significant cost escalations was the decision taken at some point prior to the Public Utilities Board review in 2011-2012 to defer payment of some capital cost related to the dam and short-range transmission assets until the end of the repayment period for financing. As Nalcor officials indicated at the time of the PUB review, the revised pricing would lower the front-end cost for consumers. It was a form of rate mitigation, but it undoubtedly increased the project cost by increasing the amount of interest to be paid overall.

The Public Utilities Board Exemption

Paragraph 4 (c) of the Terms of Reference direct the Commission to examine a decision to exempt Muskrat Falls from the Public Utilities Board's jurisdiction. Specifically, it asks the Commission to examine "whether the determination that the Muskrat Falls Project should be exempt from oversight by the Board of Commissioners of Public Utilities 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."

Muskrat Falls Commission Terms of Reference

Although the Terms of Reference appear to refer to the Muskrat Falls project as described in the 2012 amendment to the *Energy Corporation Act*, there are two exemption orders involving the project that could apply.

The Lieutenant-Governor in Council exempted Churchill Falls, Gull Island, Muskrat Falls, and all associated facilities from the jurisdiction of the Public Utilities Board in *Newfoundland and Labrador Regulation 92/00* dated 14 December 2000.²⁶ This had the immediate impact of frustrating the intent of Part II of the *Electrical Power Control Act, 1994*, but for the Commission's purposes, it is the decision addressed by Paragraph 4 (c) of the Terms of Reference.

The second exemption order, dated 29 November 2013, essentially duplicates the first in general impact, but is more detailed and specific with respect to what is exempt. *Newfoundland and Labrador Regulation 120/13* is part of a series of orders in Council issued on that date that are related to the federal loan guarantee.

It is difficult to know to which of these the Terms of Reference refers. Both affected the development of the project and the costs to consumers. However, the 2000 order is similar to other projects, none of which experienced the cost over-runs associated with Muskrat Falls. The other projects built with exemptions do not appear to have experienced the same problems that affected Muskrat Falls. This may give the Commission some bench-mark or convenient comparison in some aspects of its review. After all, these projects have sold electricity to Newfoundland and Labrador Hydro under the utilities board's jurisdiction without

²⁶ OC 2000-206 and -207
E.G. Hollett
Page 15 of 20

Muskrat Falls Commission Terms of Reference

the complexity of the 2013 order and without having as disastrous an impact on electricity rates as Muskrat Falls has had.

Muskrat Falls Commission Terms of Reference

Recommendations

The Terms of Reference for the Commission of Inquiry into the Muskrat Falls project appear to have been written without consideration for the history as well as the political and legal context in which construction of the dam and line to the island has taken place. As such, and taking the PUB exemption as an example, the Commissioner would be immediately frustrated in trying to determine what precisely the Lieutenant-Governor in Council had wanted the Commission to accomplish based on the Terms alone.

In order to proceed as effectively as possible, the Commission should adopt the following interpretations of the Terms of Reference:

- **Sanction** is part of a decision-making process. The evolution of the Muskrat Falls phase of the Lower Churchill project, particularly with respect to cost escalations and alternatives, can only be understood correctly in that context.
- The Commission must **review alternatives** examined as early as 2006 and certainly no later than any discussions that took place prior to DG 2 in November 2010, not immediately prior to December 2012.
- **Decision-making responsibility:** The Commission must determine what official, what body, or what combination of individuals and organizations made decisions about the project (including “sanction”) that affected its evolution from 2003 onward.

Determining who knew what, when they knew it, and what they decided will also address the issues explicitly and implicitly involved in Paragraph 4 (d).

Musktrat Falls Commission Terms of Reference

- With respect to the **Public Utilities Board exemption**, the Commission should focus on the 2000 Order in Council and the role it played in decisions made after 2003.

Muskrat Falls Commission Terms of Reference

Appendix A: Extract from Terms of Reference

4. The commission of inquiry shall inquire into

(a) the consideration by Nalcor of options to address the electricity needs of Newfoundland and Labrador's Island interconnected system customers that informed Nalcor's decision to recommend that the government sanction the Muskrat Falls Project, including whether

(i) the assumptions or forecasts on which the analysis of options was based were reasonable,

(ii) Nalcor considered and reasonably dismissed options other than the Muskrat Falls Project and the Isolated Island Option, and

(iii) Nalcor's determination that the Muskrat Falls Project was the least-cost option for the supply of power to Newfoundland and Labrador Island interconnected system over the period 2011-2067 was reasonable with the knowledge available at that time,

(b) why there are significant differences between the estimated costs of the Muskrat Falls Project at the time of sanction and the costs by Nalcor during project execution, to the time of this inquiry together with reliable estimates of the costs to the conclusion of the project including whether

(i) Nalcor's conduct in retaining and subsequently dealing with contractors and suppliers of every kind was in accordance with best practice, and, if not, whether Nalcor's supervisory oversight and conduct contributed to project cost increases and project delays,

(ii) the terms of the contractual arrangements between Nalcor and the various contractors retained in relation to the Muskrat Falls Project contributed to delays and cost overruns, and whether or not these terms provided sufficient risk transfer from Nalcor to the contractors,

(iii) the overall project management structure Nalcor developed and followed was in accordance with best practice, and whether it contributed to cost increases and project delays,

(iv) the overall procurement strategy developed by Nalcor for the project to subdivide the Muskrat Falls Project into multiple construction packages followed industry best practices, and whether or not there was fair and competent consideration of risk transfer and retention in this strategy relative to other procurement models,

Muskrat Falls Commission Terms of Reference

(v) any risk assessments, financial or otherwise, were conducted in respect of the Muskrat Falls Project, including any assessments prepared externally and whether

(A) the assessments were conducted in accordance with best practice,

(B) Nalcor took possession of the reports, including the method by which Nalcor took possession,

(C) Nalcor took appropriate measures to mitigate the risks identified, and

(D) Nalcor made the government aware of the reports and assessments, and

(vi) the commercial arrangements Nalcor negotiated were reasonable and competently negotiated;

(c) whether the determination that the Muskrat Falls Project should be exempt from oversight by the Board of Commissioners of Public Utilities 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, and

(d) whether the government was fully informed and was made aware of any risks or problems anticipated with the Muskrat Falls Project, so that the government had sufficient and accurate information upon which to appropriately decide to sanction the project and whether the government employed appropriate measures to oversee the project particularly as it relates to the matters set out in paragraphs (a) to (c), focusing on governance arrangements and decision-making processes associated with the project.