Written Submissions of Robert Thompson to the Commission of Inquiry Respecting the Muskrat Falls Project ("MFI")

Introduction

- 1. The MFI's Terms of Reference contain parts (a) to (d). The following excerpts are directly relevant to the Government of Newfoundland and Labrador ("GNL") in the period prior to mid August 2013 and which, therefore, might involve Robert Thompson. Mr. Thompson served as Clerk of the Executive Council and Secretary to Cabinet from early November 2003 to late May 2007, and again from early December 2010 to mid August 2013. He was the Deputy Minister of Natural Resources ("NR") from late December 2008 to early December 2010.
- 2. In interpreting the Terms of Reference, the Commissioner decided Part (a) would address:

... the business case put forward by Nalcor leading to the official sanction of the Muskrat Falls Project by Government in December 2012...

Really what is primarily being asked of the Commission is to explain what was done by Nalcor and the Government of Newfoundland and Labrador to cause the Muskrat Falls Project to be sanctioned, whether the analysis done by Nalcor and the Government was reasonable considering best industry practice...

Certainly the impact of the decision by the Nova Scotia equivalent to our PUB respecting their failure to approve the initial agreement negotiated, what notice of that decision was taken by Nalcor and the Government at the time as regards continuing to move the Project forward...

While Part (a) substantially involves GNL actions, the balance of the Commissioner's interpretation of Part (a) applies solely to Nalcor.

3. In interpreting the Terms of Reference, the Commissioner decided Part (b) would address:

...whether any reports or risk assessments were obtained by Nalcor, who they were shared with and how they were responded to by Nalcor.

As well, I must consider whether appropriate or proper consideration was given and actions taken regarding potential risk to the environment, human safety and property related to the stability of the North Spur and methylmercury contamination. How these reports or assessments were received by Nalcor and whether they were made available to the Board of Nalcor as well as the Government will also be a part of the investigation to be conducted.

4. In interpreting the Terms of Reference, the Commissioner decided Part (c) would address:

Also to be considered is why the Project was exempted from PUB scrutiny, notwithstanding that ultimately a reference was made to the PUB to compare two potential options for supplying power to the island part of the Province. Once that assessment by the PUB was commenced, the Government decided it would not give the PUB the extension of time that it requested to complete its work. To assess the possible impact of the PUB exemption or lack of scrutiny of the development, costs and operation of the Project, the Commission will be investigating the full circumstances surrounding the PUB's degree of involvement.

As regards section 4(c) and the exemption from PUB scrutiny of the Muskrat Falls Project, the Commission will have to look into why any development in the Lower Churchill River was initially exempted in 2000, why, notwithstanding that exemption, the Government decided to make a "supplemental" but limited reference for a review of the options for development to the PUB in 2011 and whether Nalcor provided appropriate and timely information to the PUB to allow the review as mandated. Also to be considered is the impact of the decision by the PUB on March 30, 2012 wherein it requested an extension of time to conduct its review and the response by Nalcor and the Government to this. To be determined as well is whether there was any interference on the part of Nalcor or the Government with respect to the PUB's consideration of the Project. Ultimately, I will have to consider whether what occurred related to the PUB was in the public interest and whether the failure of the PUB to review the Project impacted the development, costing or operation of the Project.

Part (c) is relevant to GNL and Mr. Thompson.

5. In interpreting the Terms of Reference, the Commissioner decided Part (d) would address (reference to post-sanction oversight not excerpted herein):

Based upon section 4(d), it will also be necessary for the Commission to investigate the involvement of the Government in the Project prior to sanction and whether it was fully informed and was made aware of any risks or problems anticipated with the Project so as to assess whether it had "sufficient and accurate information upon which to appropriately decide to permit the Project to proceed".

...what information and, by extension, whether all necessary information, was provided to the Government at the time.

As regards section 4(d) of the Terms of Reference, as stated earlier, the question that ultimately arises is whether or not the Government was appropriately informed and in a position to determine that the Muskrat Falls Project was the least cost option for the supply of power to the island portion of the Province. In that regard, for the purposes of sanction, the actions of Government and its officials prior to the sanction of the Project will have to be fully scrutinized. This will include a consideration of the legislative and regulatory regime, and any changes made to this as the Project progressed, as well as decisions made to facilitate financing of the Project...

Discussion of Topics / Issues

- I. Error v. Optimism Bias v. Strategic Misrepresentation v. Chaos and Complexity
- 6. Dr. Bent Flyvbjerg was the first witness. In his August 2018 Report for the MFI [P-00004], Dr. Flyvbjerg said:

...The root causes of cost overruns and schedule delays can be found in optimism and political bias...The data show that conventional cost and schedule estimates are biased, i.e. systematically underestimating cost and schedule risks. The data do not fit the "error" explanation of overrun...This leaves optimism and political bias as the best explanations of why cost and schedule are underestimated. Optimism bias and political bias are both deception, but where the latter is deliberate, the former is not. Optimism bias is self-deception..." [P-00004 (p. 4)]

Dr. Flyvbjerg expressed essentially the same view in "Underestimating Costs in Public Works Projects: Error or Lie?" Bent Flyvbjerg, Mette Skamris Holm, and Søren Buhl [APA Journal ◆ Summer 2002 ◆ Vol. 68, No. 3, pp. 279-295, September 2002 publication, in which he said:

[Cost] [u]nderestimation cannot be explained by error and is best explained by strategic misrepresentation, that is, lying... (p. 279)

Of the existing explanations [error, optimism bias, stragegic misrepresentation (i.e. lying)] of cost development in transportation infrastructure projects, we therefore opt for political and economic explanations. The use of deception and lying as tactics...aimed at getting projects started...appear to best explain why costs are highly and systematically underestimated... (p. 290)

- 7. While Dr. Flyvbjerg was a key witness on the topic of root causes of megaproject cost and schedule overruns, contrary points of view exist. They are summarized below to provide context.
- 8. John Hollmann has noted that Dr. Flyvbjerg's views on the primary reason(s) for megaproject cost overruns differ from those of Edward Merrow. Mr. Merrow's publications on the problematic nature of megaproject cost estimates date back more than three decades to a 1988 RAND publication, "Understanding the Outcomes of Megaprojects: A Quantitative Analysis of Very Large Civilian Projects". [P-03234] In "Estimate Accuracy: Dealing with Reality", 2012 AACE International Transactions RISK.1027.1, Mr. Hollmann wrote:

Arguably, the most notable studies are by John Hackney and Edward Merrow because these are the foundation for process industry phase-gate project systems. However, the studies by Dr. Bent Flyvbjerg are perhaps best known in the popular press. Dr. Flyvbjerg has made the following statements regarding industry estimating practices: "We conclude that the cost estimates used in public debates, media coverage, and decision making for transportation infrastructure development are highly, systematically, and significantly deceptive." "(those) who value honest numbers should not trust the cost estimates

presented by infrastructure promoters and forecasters." He adds, "institutional checks and balances—including financial, professional, or even criminal penalties for consistent or foreseeable estimation errors—should be developed to ensure the production of less deceptive cost estimates."

Merrow disagrees with Flyvbjerg in the following: "There is widely held belief that large public sector projects tend to overrun because the estimates are deliberately low-balled. Our (IPA's) analysis of large private sector projects suggests that no Machiavellian explanation is required. Large projects have a dismal track record because we have not adjusted our practices to fit the difficulty that the projects present."

Regardless of motives and causes, large...infrastructure projects...are frequently overrunning our funding estimates and by very large margins. [My] search found no research that showed otherwise. Further, as "forecasters" (as one is referred to by Flyvbjerg) we are failing to reliably predict the proper point of funding including contingency, but [also] the *range* of project cost uncertainty. [P-03237 (pp. 5-6)]

Two years later Mr. Hollmann revisited the dichotomy in the views of Dr. Flyvbjerg and Mr. Merrow, and this time he expressly sided with Mr. Merrow. In "Risk Analysis at the Edge of Chaos", 2014 AACE® International Technical Paper - RISK.1584.1, Mr. Hollmann wrote:

...As Mr. Edward Merrow, the founder and CEO of IPA, Inc. said in a recent podcast on mega-projects: "the distribution of success or failure [of megaproject cost estimating] is highly bimodal." This bi-modality is evident in the IPA histograms...The author's hypothesis is that the mode on the high end is dominated by projects that crossed the edge of chaos; an alternate, but not uncommon, project reality. Another hypothesis, as suggested by Dr. Bent Flyvbjerg, is that these projects were intentionally underestimated. However, my experience agrees with Mr. Merrow who stated that "...no Machiavellian explanation is required" to explain these dismal outcomes.

...As it is, every industry risk analysis I see today is presented to management as if the project were a well behaved, orderly system (albeit skewed), even for projects with extreme risks; this is not the whole story. The story is one of chaos and complexity... [P-03238 (pp. 5-6)]

9. As recently as 19 May 2019, Dr. Dominic Ahiaga-Dagbui published "Reference Class Forecasting: A clear and present danger to cost-effective capital investment on major infrastructure projects", submission to The Governments Management of Major Projects Inquiry, Public Administration and Constitutional Affairs Committee (UK House of Commons), MMP 25. Characterizing Dr. Flyvbjerg's view as oversimplified, Dr. Ahiaga-Dagbui said:

A recently popularized twin explanation for cost overrun on major projects by Flyvbjerg et al (2004) is strategic misrepresentation (deception) and optimism bias (delusion). The delusion thesis holds that project promoters and sponsors systematically underestimate the possible impact of risks, complexity and changes that may be experienced on the project due to biases inherent in human judgment. The deception hypothesis, on the other

hand, posits misaligned principal-agent relationships or political incentive; that is infrastructure project promoters deliberately manipulate and underestimate true costs to gain funding approval. At perfunctory examination, this may appear to be a reasonable explanation, especially in political circles and the popular press.

However, this causal oversimplification ignores conjoint possibilities, the role of uncertainty in complex project systems and the highly dynamic interrelationships between the different causal factors. The attribution of cause to a single source... categorically rejects the fact that cost overrun can occur from any number of different causal paths...

This is not to say that bias, behaviour, political motivations and strategy are not important ... What is argued here is that the claim that bias alone reigns supreme over all other causal explanations is unwarranted and has not been empirically demonstrated. Overrun causation stems from social, organization, engineering, technical, environmental, political and economic sources...a holistic and systemic view of the problem has to draw on causal contributions from all these different perspectives. A focus on bias and the motivations of project proponents alone, at the expense and neglect of other well-documented sources of overrun, is misguided. [P-04528 (p. 3)]

10. University of Calgary professor Dr. George Jergeas also testified. In Appendix 1 of his "Analysis of Industry Best Practices" for megaprojects, Dr. Jergeas canvassed the "Causes of Cost and Schedule Overruns". [P-04102 (pp. 116-128)] Optimism bias, political bias, strategic misrepresentation, and lying were not included in his list of causes of cost and schedule overruns.

II. Was the MF Project a Predetermined Outcome?

- 11. No, it was not.
- 12. Statements in exhibits suggesting Premier Danny Williams preferred a Maritime route over a Quebec route were made in a context and at a time when exporting power from Gull Island was the primary rationale for developing a Lower Churchill Project ("LCP"). Furthermore, market access prospecting, preliminary engineering, and environmental assessment work conducted from 2006 to early 2010 all indicate the focus was then on developing Gull Island as the initial phase of a LCP. [P-00186]
- 13. *Viva voce* testimony indicated GNL was prepared not to move forward with a LCP in the absence of a feasible business case.

III. Lower Churchill Request for Expessions of Interest ("EOI"); Evaluation of Proposals Process; GNL "Go It Alone" Decision

14. While Mr. Thompson participated in establishing the 2005 "Request for Expressions of Interest and Proposals for participation in the development of the Lower Churchill hydro resource," he did not evaluate the proposals received. Mr. Thompson attended the May 2006 Cabinet meeting wherein the decision was made that none of the short-listed LCP proposals

would be accepted, and NL would "go it alone". Cabinet's decision was based on a risk-reward evaluation and an understanding that key risks could be mitigated. Cabinet's decision reflected a policy preference rather than a commitment to build a particular LCP. Cabinet meeting participants were keenly aware of the environmental, aboriginal, engineering, market access, and business case challenges that would have to be addressed before GNL would commit to a LCP.

IV. Formation of Nalcor-GNL Integrated Approach

- a. Relationships and Communication at Senior Levels
- 15. The membership and relationships that by 2010 constituted a Nalcor-GNL LCP team had formed between 2005 and 2010; thereafter, they were relatively constant. While not documented in a protocol, team membership and communication channels evolved to meet the functional requirements at each stage of the process, driven by GNL's needs and Nalcor's needs. Up to mid 2013, the team consisted of the Premier [Williams / Dunderdale], the NR Minister [Dunderdale / Kennedy], Nalcor's CEO [Martin], the NR Deputy Minister [Kieley / Thompson / Bown], the Premier's Chief of Staff [Crawley / Taylor], the Premier's Director of Communications, and the Clerk of the Executive Council [Thompson / Norris / Thompson]. The NR Assistant/Associate Deputy Minister [Bown], Nalcor's VP LCP [Bennett], Nalcor's CFO [Sturge], the Minister of Finance [Marshall / Kennedy / Marshall / Kennedy], and the Deputy Minister of Finance [Paddon / Skinner / Brewer] played regular support roles. On specific "files" (e.g. federal loan guarantee, New Dawn Agreement), the Nalcor-GNL LCP team expanded to include the Deputy Minister of Justice [Burrage] and/or the Deputy Minister of Aboriginal Affairs [Gover].
- 16. While Nalcor's meetings with GNL typically utilized and focused on a briefing deck prepared by Nalcor, many meetings occurred without a briefing deck. Communication within the team was fluid, and generally non-hierarchical. To the extent some individuals were not present at a given meeting, they were briefed through well-established communications behaviour by team members. Decisions were reached and directions given with the approval of the Premier, or in the Premier's absence by the NR Minister, and sometimes by general consensus based on discussion. Meetings did occur between Nalcor and GNL personnel without the Premier or the NR Minister present, sometimes to simply exchange information, and sometimes to prepare for a decision-making meeting with the Premier and/or the NR Minister.
- 17. Nalcor meetings with and briefings for NR were more frequent than for GNL team members as a whole. These meetings and discussions were to share information, ensure alignment, and sometimes for direction on matters within the NR Minister's purview.
- 18. The following illustrations of the Nalcor-GNL relationship and partnership approach are drawn from Mr. Thompson's testimony:
 - ...the Energy Plan development was, in my recollection, sort of an equal effort by or an integrated effort by the [NR] department and the Energy Corporation. [MFI transcript, 14 Nov 2018 (p. 12)]

The context of a benefit strategy for the Lower Churchill Project is that a government – whenever it's dealing with a proponent in the private sector, part of the negotiation of – before approval to proceed would include a commitment by the proponent of the kind of benefits that would be conferred. You know, we want to know what kind of labour benefits, perhaps financial benefits and other kinds of benefits will accrue to the province and make sure that the proponent delivers upon that during the life of a project. So we're simply, here, translating that general policy into the Lower Churchill context. And even though we're – you know, had worked very closely, and almost like an integrated team at times, between the Department of Natural Resources and Nalcor, on this occasion, this was a strategy that was very much like an agreement with Nalcor that as Nalcor builds these projects – both Gull and Muskrat Falls – whenever they are likely to occur and in whatever sequence – this is the benefit strategy, the set of commitments, that Nalcor would make sure are delivered, would [be] monitored over time; the government would monitor it. [MFI transcript, 14 Nov 2018 (p. 18)]

...my best explanation of it would be that – as I mentioned – we were satisfied with the explanations and the answers to questions that we would've posed in previous meetings. And secondly, you have to recall that the Nalcor team and – or the, you know, the Nalcor team, the government team, were operated often as an integrated team in the sense that we were pursuing a, you know, some common objectives. We had good relationships and we're – as I said – we're forthright and we had a good rapport, and we relied upon the Nalcor team often for insight and for accurate and – accurate, timely, good information. And it may be that we, at that point in time, had felt that we really needed to focus on the two best options. [MFI transcript, 14 Nov 2018 (pp. 23-24)]

19. When asked by Commission Co-counsel whether there would be a contradiction when someone [GNL] who is part of an integrated [Nalcor-GNL] team has an oversight role, Mr. Thompson said that - in the circumstances - there was no contradiction, which he explained as follows:

No, I don't think so. Clearly, the government was a – its policy was to find a way to develop the Lower Churchill that – well, that had been its policy for – over multiple governments and, certainly, the government at that time. And in carrying [out] that policy there are broader goals and objectives than least-cost energy, which is clearly significant and fundamentally important, but there are economic benefits and – or the related environmental goals and so forth. So, you know, we are a policy partner, if you like, in this overall initiative. So in the sense I say integrated team...it's hard to divorce those broader goals from the specific energy delivery goals of Nalcor. So that's the sense in which I think there's an integrated team. And so that then – in needing to move in unison and stay focused on the goal together, it doesn't mean we integrate personnel down at the engineering level, it means that we have a variety of roles that we try to integrate at the top. And we get – and we have a lot of experience dealing with each other in meetings, through dialogue, through deep questioning. And that's the sense in which I mean it and I don't think there was a contradiction in that. [MFI transcript, 14 Nov 2018 (pp. 26-27)]

b. Relationships and Collaboration at Other Levels

i. Communications

20. Collaboration between Nalcor's communications team and GNL's communications team was a daily to weekly occurrence. Information sharing and establishing alignment on strategy and messages were necessary for a project where Nalcor and GNL were policy partners.

ii. Engineering

21. GNL did not internally develop the construction project engineering expertise required to develop a LCP. GNL instead financially invested in Nalcor to acquire the necessary expertise.

iii. Environmental Assessment

22. GNL acted as a regulator in respect of the environmental assessment process and environmental permitting. Officials in GNL's Environment Department responsible for environmental affairs and issues did not collaborate with Nalcor in the same way as NR did.

iv. <u>Legal Services</u>

- 23. Justice Department lawyers liaised with Nalcor's lawyers on contracts that involved both parties, on legislation that enabled the LCP, etc. The lawyers involved generally each advised their own respective client, rather than integrating as a team.
- c. Managing the Multiple Roles of GNL
- 24. In order to give effect to public policy, the federal and provincial governments must play multiple roles simultaneously. For example, when building a public highway a government is: project proponent; often the project engineer; applicant in the environmental assessment process; regulator with respect to environmental assessment; overseer of the construction contracts; source of financing; and quality and safety inspector. Governments must balance these roles with legitimate political objectives when establishing and fulfilling political priorities.
- 25. The multiple roles of GNL in the LCP (ultimately the MF Project) were similarly complex, if not more so. Nalcor-GNL team members were aware that GNL must balance its various roles. In particular, the role of project proponent needed to be balanced with protecting the public interest, both financial and environmental.
- 26. GNL's approach was guided by an analysis that showed multiple policy benefits from the LCP. The following list of policy benefits demonstrates the breadth of the Project. It not only describes the many roles managed by GNL, it is also relevant when considering why GNL initially did not refer the MF Project to the Public Utilities Board ("PUB"), an issue addressed later in this submission.
 - Least cost power / best decision for ratepayer
 - Improved reliability of electricity system
 - Monetization of surplus power / access to export markets

- Potential for additional Island projects to be developed for export market
- Elimination of reliance on expensive, carbon-emitting power sources
- Avoidance of carbon taxation and / or regulation
- Enhanced environmental "green" reputation
- Industrial opportunities with excess power; enhanced ability to attract industry
- Positive resolution of aboriginal claims, self-governance, and historic Upper Churchill grievance
- Economic benefits of project spending and employment
- Strategic benefit of breaking Quebec's geographic leverage

V. 2010 Supply Analysis and Requirement to Make a Supply Decision

27. NL Hydro's July 2010 electricity supply analysis [P-00034] required GNL and Nalcor to make a decision about the next generation source for Island ratepayers. The decision concerning a new supply source necessitated a comparison of options. Up to that point, any LCP development had been premised on export markets, perhaps supplemented by an infeed to the Island. The 2010 electricity supply analysis shifted the focus to one where an infeed option competed against other Island supply options.

VI. GNL Knowledge / Oversight of Nalcor's Management of MF Project

- 28. The following addresses the Commissioner's inquiry into whether GNL employed appropriate measures to oversee the MF Project. To exercise its role as shareholder and protector of the public interest, GNL required regular, accurate, and comprehensive information on such matters as:
 - Investment analysis / options selection
 - Negotiation of significant contracts
 - Capital cost estimates at key stages (DG2 and DG3)
 - Risk analysis and risk mitigation
 - Financing
 - Economic benefits
 - Environmental impacts
- 29. GNL directed Nalcor to build the human resource capacity to plan and execute the LCP. Nalcor was GNL's agent, and GNL expected Nalcor to supply complete and relevant information to GNL on a timely basis so that GNL could carry out its various roles, including providing guidance and making appropriate decisions. Given Nalcor's unique mandate and expertise, it would have been unreasonable to expect GNL to internally duplicate Nalcor's human resource capacity in order to oversee Nalcor's activity at the detailed planning and operational level. GNL did, however, need to be diligent in ensuring it reviewed appropriate information made available by Nalcor. By means of direct meetings and dialogue, GNL challenged and tested the information provided by Nalcor. GNL was informed about and satisfied with what GNL understood to be external, independent reviews of Nalcor's work. Implementation of this oversight approach, delineated below, addresses the Commissioner's core term of reference as it pertains to GNL: namely whether GNL 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..."

A. Communications and GNL Structure

- 30. The relationship and communication style of the Nalcor-GNL LCP team rested on top of the formal legal relationships in which the shareholder role is embodied in the NR Minister. The formal structure included Nalcor's submission to GNL of strategic plans, business plans, annual reports, annual budgets, and requests for approval of various applications under various statutes. Given the level of priority associated with the LCP and the multiple policy domains involved, involvement of the Premier's Office and Cabinet Secretariat, as well as other GNL departments, was also a part of GNL's oversight process.
- B. Nalcor's Board of Directors ("the Board")
- 31. As with all other crown corporations, GNL expected the Board to carry out appropriate oversight. The Board was required to ensure Nalcor's CEO put in place appropriate processes to ensure sound decision making, risk assessment, risk management, internal audit, ethical behaviour, etc. As a first line of oversight, GNL relied upon the Board to ensure that the MF Project was well-managed and overseen.
- C. Nalcor's CEO
- 32. Nalcor's CEO carried the greatest burden of responsibility for ensuring accurate and complete communication of matters to the Board and, in the case of the MF Project, to Nalcor's sole shareholder (i.e. GNL). The CEO's responsibility included providing the Board and GNL with accurate and timely information concerning cost and schedule estimates, risk assessment, and risk management.
- D. Meetings and Briefings
- 33. Meetings and briefings for GNL by Nalcor were held regularly, usually accompanied by briefing documents, and allowed for questions and the opportunity for GNL to challenge Nalcor personnel and obtain an understanding of the issues. When Nalcor required a Cabinet decision, NR prepared the appropriate paperwork, and Cabinet Secretariat then performed an analysis, which included input from other GNL departments as required. That analysis and the NR submission were provided to Cabinet to use in its consideration of the requested decision.
- E. Lower Churchill Coordinating Committee ("LCCC")
- 34. The LCCC was a committee comprised of Deputy Ministers from relevant GNL departments and Nalcor's VP LCP [Gilbert Bennett]. Chaired by the Clerk of the Executive Council, the LCCC was intended to communicate and coordinate on a wide range of LCP issues. While not an oversight committee, issues discussed by the LCCC would sometimes evolve into GNL oversight matters.

F. Financial Market Soundings

- 35. GNL's Finance Department would periodically, beginning in 2007, consult with bond rating agencies and other actors in financial markets concerning: the LCP; GNL's ability to finance its equity share in a LCP; and the impact on GNL's credit rating. The feedback from finance markets was generally positive. [P-00180 (p. 11); P-00966; P-00906; P-00968; P-00969; P-00974; P-00907; P-00970; P-00975; P-01524 (p. 15); P-00982; P-00914 (pp. 31-36); P-00985; P-00043 (pp. 2-3, 5-7); P-00529 (pp. 14-15); P-00928; P-00936; P-00938]
- G. Informal Communication
- 36. Relationships between key Nalcor and GNL personnel were such that informal and regular communication occurred by telephone or in person to discuss LCP progress, key issues, and risks.
- H. Nalcor's Use of External Consultants for DG2 Project Review (Including CPW Preference, Options Analysis, and Risk Assessment)
- 37. GNL understood that Nalcor used external consultants (IPA, IPR, Westney Consulting ("Westney"), Navigant, and Validation Estimating) as review mechanisms for Nalcor's capital cost estimates and its other risk assessments. Nalcor told GNL such usage of external consultants was the appropriate and reasonable way to have its internal capital cost estimates and risk assessments checked by external expertise. Consequently, GNL understood and was pleased that Nalcor was using best practices in utilizing "cold eyes" reviews to identify any gaps, and to provide constructive criticism so that any necessary modifications or corrections could be made at an early stage.
- 38. GNL was briefed on, and understood, that at DG2 the amount Nalcor included for contingency would be higher compared to DG3. Nalcor told GNL that as more engineering was conducted the percentage of the capital cost estimate attributable to contingency would decrease. GNL understood that Nalcor would brief GNL on the findings in external consultants' reports. GNL understood that in conducting such briefings Nalcor would not in any way mislead GNL personnel. GNL was confident that if GNL requested the external consultants' actual reports they would be provided. Mr. Thompson testified:
 - ...we had a high level of I guess, a good relationship and rapport. We always felt that Nalcor was forthright in all of the analysis that it was doing. We always had ample opportunity for questioning and diving deep in these meetings with Nalcor, Ed Martin and his officials. [MFI transcript, 14 Nov 2018 (p. 21)]
- 39. Prior to DG2, GNL did not believe an independent review commissioned by GNL was necessary, as DG2 was a feasibility assessment. GNL understood that 5 10% of the engineering work had been completed at DG2. This DG2 feasibility assessment was sufficient to determine which development option to chose as the next source of generation for the Island. GNL understood that Nalcor would then conduct further engineering work, following which there would be another opportunity to compare capital cost estimates and determine the best option.

Furthermore, GNL viewed Nalcor as a team member of the broader public service. GNL believed Nalcor's goals were aligned with those of GNL. Nalcor was not seen as a the private sector entity with goals that were different from or misaligned with those of the public sector. GNL's reliance on Nalcor's capital cost and schedule estimates and risk assessments was certainly not a naïve perspective. GNL's reliance on Nalcor's estimates was a function of the foregoing assessment, and was appropriate and reasonable for the time and circumstances.

I. Emera Negotiations

40. The Emera negotiations that lead to the November 2010 Emera term sheet were conducted by Nalcor within the confines of negotiating instructions discussed with and approved by GNL. Nalcor continuously briefed GNL officials about the negotiations, and any change to the negotiating mandate was approved by GNL.

J. Nalcor's DG2 Recommendation to GNL

41. By late September 2010, Nalcor's Executive had completed its analysis of the various options, including a satisfactory degree of completion of the Emera negotiations, and was prepared to recommend to the Board [P-00640 (pp. 4-5)] and to GNL that the MF Project be the next supply source for the Island. In late September 2010, Nalcor provided a comprehensive briefing to GNL, in which the five chief supply options were explained, and the two most feasible (the Interconnected and the Isolated) were compared. [P-00216] Nalcor recommended the MF Project be constructed. Nalcor's briefing included no reference to PUB involvement because the December 2000 *Labrador Hydro Project Exemption Order* [P-00023] applied to generation facilities and dams at Churchill Falls, Gull Island, and Muskrat Falls, as well as to transmission facilities for delivering power from those sites to Newfoundland or to the Quebec-Labrador border. A "Labrador Hydro Project" was exempt from the *Electrical Power Control Act*, 1994 and the *Public Utilities Act*.

K. NR's Review of CPW Preference

42. GNL relied on Nalcor's capital cost estimates and generation supply options analysis, including its CPW modeling. Nonetheless, NR in October 2010 undertook and completed its own analysis of Nalcor's DG2 comparative CPW results. NR's analysis was carried out by NR officials who were trained in economic modeling. These officials regularly used load forecasts, oil price forecasts, economic projections, exchange rate projections, and present value analysis. While NR officials initially encountered difficulty in securing all the necessary data from Nalcor, within days the matter of access was resolved so that all relevant data was shared with GNL. The CPW analysis of the Interconnected Option and the Isolated Option performed by NR allowed for independent verification of the reasonableness of Nalcor's assumptions, along with confirmation that risks existed in the areas of predicting future fuel prices and making capital cost estimates. Nalcor's capital cost engineering was not subjected to GNL scrutiny because NR did not employ professionals with the requisite experience. This DG2 stage of feasibility assessment by NR, assuming an equal level of diligence by Nalcor in compiling the capital cost estimates of each of the alternatives, demonstrated that preferring the Interconnected Option was reasonable. [P-01060; P-01061; P-01062; P-01063; P-01064; P-01065; P-01188; P-00217; P-

01187; P-01069; P-01167]

- L. Shareholder Advisor Position, Shareholder Handbook, Shareholder Letter of Expectations
- 43. Mr. Thompson served as NR Deputy Minister from late December 2008 to early December 2010. By mid 2009, NR had developed a point of view that GNL's relationship with Nalcor was sufficiently complex and important that a shareholder advisor position should be created within NR. The purpose of the position was to allow the NR Minister, as chief representative of Nalcor's shareholder, to properly exercise their duties as sole shareholder. One part of the description of the shareholder advisor's position was to prepare a shareholder handbook. While Commission Co-counsel initially questioned whether such a handbook had been developed, the evidence established that by early 2011 a Shareholder Handbook "in final draft" existed, as did "a letter of expectations from the Shareholder to Nalcor". In an email [P-01168] dated 3 February 2011 to then NR Deputy Minister Richard Wardle, NR's Charles Bown said:

I'd appreciate your review of this document. As noted in the title, it is a letter of expectations from the Shareholder to Nalcor and is a new element in our corporate governance activities. This document is particularly important at this time as Nalcor is engaged in its planning activities and is also preparing its Annual Report for Transparency and Accountability. We have also prepared a Shareholder Handbook that is in final draft.

Creation of the shareholder advisor position within NR is evidence that GNL was taking reasonable measures to oversee Nalcor at this crucial stage. As to what occurred after his February 3 email to Mr. Wardle, Mr. Bown testified:

One thing I did recall after the fact was that Ms. Pennell was contracted by us and I prepared her employment contract and gave her a terms of reference. And she prepared the draft work and subsequently, she was reassigned to another activity, and this work was passed off to another employee and another executive – I believe it was Tracy English. I'm not certain. It could've been Paul Scott. And I lost track of it after that...It was a lot of work that went into it, so I don't recall it being vetoed. [MFI transcript, 6 Dec 2018 (p. 43)]

- M. Did GNL Have Sufficient and Accurate Information at DG2?
- 44. Based on Nalcor's analysis and NR's October 2010 CPW review [P-01069; P-01167]], GNL had sufficient and accurate data to make the DG2 decision. Mr. Thompson testified:

And here in this context we had Nalcor, a Crown corporation, with a board of directors, shareholder alignment...with highly qualified people...and there had been these coldeyes reviews by other consultants, so...that was the context in which we...felt satisfied to release [DG2 cost estimates] to the public. [MFI transcript, 14 Nov 2018 (p. 28)]

- 45. For comparative and contextual purposes, the Commissioner might consider how British Columbia's government reviewed BC Hydro's decision on the Site C project, and how Manitoba's government reviewed Manitoba Hydro's decisions on the Keeysak and Bipole III projects. The British Columbia and Manitoba projects have experienced cost overruns not unlike those of the MF Project.
- N. GNL's Understanding in Early 2011 of Nalcor's Post-DG2 Plan
- 46. At DG2, GNL was satisfied with the level of Nalcor's analysis, including Nalcor's use of external consultants. NR's October 2010 CPW analysis supported Nalcor's DG2 CPW analysis. GNL knew that Nalcor would be using an independent consultant, Navigant, to conduct an additional external analysis.
- 47. In early 2011, the public environment changed as critics of the MF Project complained about the lack of PUB involvement. At the heart of that public criticism was an assessment of risk and a tolerance for risk that was different than that of GNL. Critics believed that the MF Project's large capital cost, to be incurred up front, had a riskier profile than a series of smaller projects, which the critics believed to be preferable given NL's relatively small size population. Despite the PUB historically not having been involved in decisions concerning major generation sources [P-00952 (pp. 25-27); P-00164 (p. 25); P-00034 (p. 33); P-00077 (p. 20); P-00110 (p. 15); P-01875 (pp. 152-154); P-01876 (pp. 62-64); MFI transcript, 10 Oct 2018 (pp. 73-76)], critics now strongly recommended that GNL use the PUB to independently review Nalcor's DG2 decision.
- O. Wade Locke's Analysis
- 48. Coincident with growing calls for a PUB review, Dr. Wade Locke conducted his own analysis of the DG2 data comparing the Interconnected Option to the Isolated Option. Dr. Locke's analysis, presented in a public forum on 17 January 2012 and afterward communicated by him to GNL, confirmed the reasonableness of choosing the Interconnected Option over the Isolated Option. [P-00317; P-00376; P-00377]

VII. PUB Involvement

- a. History of Legislative Exemptions as Understood by GNL in 2006 2011
- 49. Nalcor and GNL officials understood that the PUB had historically not been involved in assessing new major generation sources. In an email dated 17 May 2011 to Premier Dunderdale, et al. [P-01093], Mr. Thompson wrote:
 - Q1: List of projects not subject to PUB oversight:
 - Rattle Brook (Algonguin Power)
 - Star Lake (ENEL)
 - Rose Blanche (Newfoundland Power) due to its size it did not trigger PUB scrutiny, so no exemption required.
 - NLH's Granite Canal project; December 14, 2000

- Labrador Hydro Project December 14, 2000
- Exploits River incremental energy project at Grand Falls and Bishop's Falls Abitibi and Fortis; July $9,\,2002$
- Corner Brook Pulp and Paper thermal co-generation project; October 31, 2000
- Additionally, the decision to develop two of the largest generation developments in the province's history, Bay d'Espoir (670MW) and Holyrood (500MW), were approved by Cabinet and were not subject to regulatory review.

The December 2000 legislative exemption of any "Labrador Hydro Project" from PUB consideration reinforced this perspective, but it was also a widely and generally held public point of view.

50. This view was empirically correct in the context of the *Electrical Power Control Act*, 1994 and its predecessor *Electrical Power Control Act*. As of 1 January 1996, the *Electrical Power Control Act*, 1994 explicitly confined the PUB to considering new generation sources only in the context of "the lowest possible cost consistent with reliable service." [P-00087 (pp. 6-8)] Therefore, the PUB could not consider policy factors that might favour alternate sources of supply. The longstanding legislative constraints on the PUB reinforced GNL's view that the PUB should not be involved in what would be a major public policy decision. GNL's perspective on the PUB's role was not called into question until early 2011.

i. Focusing Our Energy Plan ("the Energy Plan")

51. The 2007 Energy Plan and accompanying GNL media release contained policy statements that implicitly confirmed the PUB would not be involved in approval of a LCP. The Energy Plan stated: "The Provincial Government, through NLH, has investigated the long-term options to address Holyrood emissions and decided to replace Holyrood generation with electricity from the Lower Churchill through a transmission link to the Island." [P-00029 (p. 46)]. A 11 September 2007 GNL media release read: "Focusing Our Energy addresses the Provincial Government's plan for the potential development of the Lower Churchill Project...In conjunction with this development, a transmission link will be built between the island and Labrador. The plan also commits to addressing environmental concerns at the Holyrood Generating Station by replacing Holyrood with electricity from the Lower Churchill development by 2015...Once the Lower Churchill Project begins producing power and the transmission link is complete, 98 per cent of Newfoundland and Labrador's energy will come from renewable clean sources, ensuring a reliable, competitively-priced supply of power for development in this province with the surplus exported to markets in North America..." [P-00188 (p. 2)] In 2007, no concern was publicly expressed about the Energy Plan not referencing PUB involvement in the process of "replacing Holyrood with electricity from the Lower Churchill development by 2015."

ii. Consideration of PUB Reference v. Consultant Study

52. In early 2011, when concern over the MF Project began to be publicly expressed, a belief grew within GNL that a additional review of Nalcor's analysis and GNL's stated preference was needed. Initially, within GNL the idea of hiring a large consulting firm to assess the benefits and risks of the MF Project gathered momentum, culminating in the May 2011 briefing note signed

by Finance Minister Thomas Marshall and NR Minister Shawn Skinner. [P-00807] That viewpoint then evolved in favour of commissioning the PUB to undertake an independent review. The latter approach had advantages, particularly in that the PUB was independent of Nalcor and GNL, and the PUB could hire its own experts without Nalcor or GNL involvement. [P-00846]

- 53. Had GNL only been intent on obtaining a positive assessment of the MF Project, hiring a consultant and closely managing its terms of reference would have been a more certain approach than seeking the PUB's advice. GNL instead chose the most independent approach possible to compare the Isolated Option and the Interconnected Option.
- 54. The original (pre 2011) rationale for not commissioning a full PUB regulatory review of the MF Project did not change. The PUB was not granted a decision-making role. Nonetheless, the 2011 reference limited neither the PUB's independent ability to select whatever experts they chose for their review nor the conclusions the PUB saw fit to draw. While PUB members may have preferred broader terms of reference, the limiting factors were focused on scope, and not on autonomy.
- 55. GNL's purpose in referring the matter to the PUB was to allow the most independent review possible, within a limited scope, so that the PUB might identify any flaws in Nalcor's analysis. If there were flaws warranting a reconsideration of the Interconnected preference, GNL was open to such findings.
- b. PUB's Terms of Reference
- 56. The PUB's Terms of Reference reinforce this perspective. While the Terms of Reference limit the scope, they allowed the PUB to take into account whatever factors they considered relevant to their review, and to hire their own independent experts.
- c. GNL Interaction with PUB
- 57. By late summer 2011, GNL knew the PUB was disappointed with Nalcor's production of information. GNL was also aware that Nalcor felt the PUB was straying beyond its mandate in terms of some of the Requests for Information ("RFIs") issued to Nalcor. GNL expected a request by the PUB for an extension to its deadline. To gain a better appreciation of the PUB's perspective, Mr. Thompson was asked to meet with the PUB Chair. Meeting with the PUB Chair was not unusual in that GNL personnel had on previous occasions met with the PUB Chair to exchange information on matters that might come before the PUB. The insurance reference to the PUB is one such example, while the water management reference case is another. When asked, the PUB Chair agreed to meet at the Confederation Building on 14 Septemebr 2011. [P-01166] During his meeting with Mr. Wells, Mr. Thompson raised two issues the PUB's assessment of Nalcor's delay in providing information and the reasoning behind some of the RFIs. Mr. Thompson's notes [P-01165] confirm some of the information-gathering points. Regarding the RFIs, PUB Chair Wells told Mr. Thompson the reason(s) for the RFIs were none of GNL's business. Mr. Thompson agreed that was so, as it was not GNL's intention to exert pressure on the PUB.

- d. GNL Coordination with Nalcor during PUB Reference
- 58. GNL received drafts of some of Nalcor's submissions to the PUB concerning the PUB Reference. This practice was merely an extension of GNL's and Nalcor's ongoing efforts to ensure alignment of their key communications messages, and not an effort to exert influence on technical issues before the PUB. Mr. Thompson testified:
 - ...in dealing with the PUB, Nalcor and the government shared information to stay aligned, to make sure we were...understanding the progress of the hearings and...the kind of submissions that Nalcor was putting forth, and so a response to the PUB from Nalcor about any concerns and the progress of the hearings or the submission of information would have been something that would have been shared for information, possibly for feedback as well...we continued on, of course, to operate as a closely collaborative team throughout this entire period and that included, from time to time, the communications back and forth when Nalcor was communicating with the PUB, certainly...I would regard it as an exception rather than the rule, because while we did review certain correspondence, we didn't take charge of any of the detailed responses... there had been some concern expressed by the PUB about the schedule and the, perhaps, the lateness that Nalcor or of submissions coming in from Nalcor. Certainly the government was encouraging Nalcor, perhaps pressing Nalcor, to ensure that it was on top of this and meeting a good schedule. [MFI transcript, 14 Nov 2018 (p. 53)]
- e. GNL Consideration of PUB Requests for Extension of Report Deadline
- 59. GNL agreed to an extension of the PUB Reference report deadline to 31 March 2012. [P-00045] A further extension was not given because GNL believed the PUB could complete its review within the March 31 timeline [P-00047], particularly as on 16 December 2011 the PUB advised GNL that "a tentative schedule" included "January 27, 2012 MHI files its report". [P-00046]
- f. Government Reaction to PUB Report
- 60. The PUB concluded it could not provide an answer to the Reference question because it had not received Nalcor's more current data and studies related to DG3. As the DG2 data was then about 18 months old, the PUB felt more up-to-date information was needed to answer the Reference question. In contrast, though operating with the same information, Manitoba Hydro International ("MHI") and the Consumer Advocate concluded the Interconnected Option was preferable to the Isolated Option. [P-00052; P-00600]
- 61. GNL was disappointed the PUB had not expressly answered the Reference question. [P-00727] Nonetheless, the PUB report did provide a narrowly interpreted affirmation that the Interconnected Option was the better of the two options based on the data provided. [P-01237 (p. 1); P-01657 (p. 1)]
- g. Comparison to the Utility and Review Board ("UaRB") Process

- 62. When the PUB Reference question was posed, the UaRB process in Nova Scotia ("NS") had yet to begin. GNL did not compare its process to the one used in NS. The NS government and UaRB were not considering a generation decision with parameters equivalent to those that the MF Project had for NL. The MF Project embodied environmental goals, strategic goals, economic development goals, energy reliability goals, all layered on top of a least-cost energy goal. As in NS the environmental goal was already a known constraint, Emera focused solely on proving the Maritime Link was the least cost for NS ratepayers. NL's PUB focused on the same issue for NL ratepayers.
- h. Legislative Measures to Fulfill Commitments to Lenders and the Federal Government
- 63. Legislative commitments made by GNL in 2012 were the logical extension of the strategy to ensure the debt associated with the MF Project was covered by revenue from ratepayers. This financial commitment underscored why the PUB was not involved in the process. Financiers (including Canada) required assurance that the discretion of a regulatory authority (i.e. the PUB) would not imperil the revenue steam required to cover the MF Project's debt. [P-00529]
- i. Consideration of PUB Role in Oversight
- 64. GNL did consider involving the PUB in an oversight role for project construction and operating expenses. A 26 April 2012 Cabinet MC [P-03439], a 31 May 2012 NR direction note [P-01257], and a 27 November 2012 NR direction note [P-01128] concerning Robert Noseworthy's assessment of MF Project oversight all raised this issue. The 26 April 2012 Cabinet MC read:

Department of Natural Resources, the Department of Finance and the Department of Justice, in consultation with Nalcor, are directed to develop options for a Muskrat Falls Project cost accountability protocol that builds upon existing accountability mechanisms (including public reporting), which would include an independent process to review costs associated with the Muskrat Falls Project to determine the reasonability of costs incurred... [P-03439]

In the 27 November 2012 direction note, NR and Justice Departments:

recommended that: (i) For the Project Development / Construction Phase, Government utilize the same independent engineer as Nalcor to review Project expenditures and periodically (quarterly due to the level of expenditures) provide a report to Government on the reasonability of costs incurred, with such reports to be subsequently released to the public...[and] (ii) For the Project Operations Phase, Government direct the Auditor General to carry out a periodic (annual) review of the Project's expenditures and report on the reasonability of costs incurred... [P-01128 (p. 4)]

While these recommendations were not implemented, in 2013 NR did pursue the idea of so retaining Canada's Independent Engineer ("IE").

j. Impact of GNL Not Providing Additional Extension to PUB

65. An additional extension to the PUB Reference deadline could have delayed the MF Project's timeline. Such an extension would have diverted Nalcor resources away from preparing DG3 information, and escalated MF Project costs without a likelihood that the outcome would be different.

VII. Role for PUB in DG3 Review

66. GNL's contract with MHI for a DG3 review was an efficient contract, given the timeline constraints as known when GNL initially approached MHI. GNL felt involvement of the PUB would require additional months of activity, meaning the MF Project schedule would be extended and thereby incur higher costs. In the absence of a substantive reason having been exposed in the DG2 analysis, GNL felt it unnecessary to involve the PUB in the DG3 process.

VIII. Traditional Regulatory Role of PUB

67. The PUB's traditional, legislative, and rigidly interpreted "lowest possible cost consistent with reliable service" regulatory role resulted in GNL never contemplating asking the PUB to broadly investigate and report on major generation options for the Island.

VIII. Joint Review Panel ("JRP")

- a. GNL's Response to JRP Report
- 68. GNL's response to the JRP's August 2011 Report was a logical extension of GNL's strategy. The additional layer of review suggested by the JRP was addressed in the form of MHI's DG3 review. GNL did not ignore the JRP recommendation. GNL believed the MF Project to be justified on an economic basis.

IX. Nalcor's Board of Directors ("the Board")

- a. Role of the Board
- 69. The Board was expected to perform its statutory role and provide effective oversight and governance consistent with Nalcor's size, complexity, and asset base.
- b. Size of the Board
- 70. The Board should have had more members to spread the workload. As Clerk of the Executive Council, Mr. Thompson took steps that lead to additional members being added to the Board. [P-01623] Increasing the number of members on the Board was the prerogative of the Premier and the Cabinet.
- c. Composition / Skill Mix of the Board
- 71. The Board should have contained at least some people with experience relevant to the construction of a hydroelectric and transmission megaproject. The composition of the Board was

the prerogative of the Premier and the Cabinet.

- d. Compensation for the Board
- 72. Despite efforts to address the Board's inadequate size and expertise deficit, GNL policy was that members of the Board would not be compensated. [P-01116] While this policy was consistent with other NL crown corporations and crown agencies, it may have constrained the skill base of those who could be attracted to the Board. Compensation for the Board was the prerogative of the Premier and the Cabinet.

X. MF Project Review at DG3

- a. GNL Decision to Use Independent Review
- 73. GNL's initial decision to conduct an independent review at DG3 was made at about the same time the PUB Reference was commissioned. GNL's decision on independent review of Nalcor's recommendation was part of an overall effort to provide assurance to the public as to the integrity of Nalcor's work and that the MF Project was the best choice for the next major supply source for the Island. If serious flaws in Nalcor's work emerged from these reviews, they would have affected GNL's position on developing the MF Project.
- b. GNL's Choice of MHI to Review Nalcor's DG3 Analysis
- 74. GNL chose MHI based on considerations of efficiency. MHI was already thoroughly familiar with the MF Project because of its work for the PUB. Therefore, MHI would be more likely to finish a DG3 review within a timeframe that would not jeopardize the MF Project's schedule. GNL viewed MHI as an unbiased reviewer because the PUB without any GNL or Nalcor involvement had earlier selected MHI to provide an expert review of Nalcor's DG2 analysis.
- c. MHI's DG3 Scope of Services ("SOS") [aka Scope of Work ("SOW")]
- 75. NR developed MHI's DG3 SOS (i.e. SOW). Appendix "A" (herein at pp. 30-40) contains a detailed discussion of the context in which NR developed and finalized the SOW as it appeared in the executed contract for MHI's DG3 review.
- 76. Mr. Thompson, former NR Minister Kennedy, and former Premier Dunderdale testified that prior to 2018 they did not know about a decision having been made, during a meeting on 6 April 2012 or otherwise, to exclude a review of Nalcor's risk analysis from the SOW for MHI's DG3 review. They testified that it was only in 2018 that they learned that Nalcor divided risks into different categories, namely tactical and strategic, and treated them differently. Each also testified he or she had considered risk generically and understood it be something Nalcor analyzed and addressed through a contingency amount in the capital cost estimate for the MF Project. They did not know that "[t]he definition of contingency and how to estimate it are among the most controversial topics in cost engineering." [P-00959 (p. 1)] ²

77. In relation to his overall understanding of the relationship between risk assessment(s), contingency, and capital cost estimates, Mr. Thompson testified:

The way that I recall it is that as the amount of engineering gets higher, the confidence we can have in the cost estimates gets greater, and therefore, the amount of contingency that's necessary within the cost estimate will get lower. And so as we were advancing... they were making statements to us that we should have more and more confidence in that estimate as we move along and that the consultants who they engaged to provide input to that would give them reassurance as well on that point... [MFI transcript, 14 Nov 2018 (p. 81)]

- 78. When testifying, Mr. Bown acknowledged that NR developed MHI's DG3 SOW. He said a decision was made during a 6 April 2012 meeting to remove an explicit reference to MHI reviewing Nalcor's DG3 risk analysis. He attributed the decision to a time constraint requiring MHI's review to be finished in time for a July 2012 House of Assembly ("HOA") debate and the anticipated unavailability of Nalcor's risk analysis within that timeframe. However, Mr. Bown also said he has no actual memory of what was said at the 6 April 2012 meeting, and was relying on Mr. Kennedy's notes. Mr. Kennedy's April 6 notes did not explicitly reference a decision being taken or direction given to exclude a review of Nalcor's risk analysis from MHI's draft DG3 SOS. What the evidence does indicate is: that the combined effect of an earlier 1 April 2012 meeting and the April 6 meeting was that Mr. Bown was directed to retain MHI to conduct a DG3 review for GNL, which review was to be completed in time for a HOA debate then planned for July 2012; and that responsibility for implementing that direction and making any logistic arrangements and decisions necessary to facilitate MHI's review were left to Mr. Bown and NR.
- 79. Mr. Thompson's exposure to the draft text for MHI's SOS occurred in early May 2012, and only after NR had on April 30 removed all explicit references to risk or contingency. Mr. Thompson in an email to Mr. Bown dated 8 May 2012 "identified items which [he] thought needed to be clarified as they would raise uncertainties about [MHI's DG3 review] process." [P-01115 (p. 1)] That comment was the extent to which Mr. Thompson participated in shaping what became the wording of MHI's finalized DG3 review SOW. Mr. Thompson personally believed that MHI was being commissioned to review all the essential aspects of Nalcor's DG3 analysis, including Nalcor's risk assessment and contingency.
- d. MHI's DG3 Review and MHI's DG3 Report to GNL
- 80. GNL (in this context, Premier Dunderdale, NR Minister Kennedy, and Mr. Thompson) believed MHI had access to all appropriate and relevant documents and information from Nalcor. Based on MHI's October 2012 DG3 report, GNL believed MHI had reviewed the MF Project's capital cost estimates, schedule, and risks (i.e. contingency). MHI's DG3 report [P-00058] supported GNL's belief. That report stated:
 - (i) In relation to schedule,

as to the HVdc transmission line, MHI said: "The project schedules and execution times including engineering, procurement, and constructions are comparable to similar HVdc projects." [P-00058 (p. 38)]

as to the Muskrat Falls GS, MHI said: "From MHI's perspective, the project scheduling is comprehensive, detailed, and consistent with best industry practice for similar projects. The current project schedule is appropriate and reasonable to meet the requirements of Decision Gate 3." [P-00058 (p. 57)]

as to the Labrador Transmission Asset, MHI said: "This is a prudent and reasonable schedule..." [P-00058 (p. 58)]

(ii) In relation to capital cost estimates,

as to the HVdc transmission lines, MHI said: "The costs for the [HVdc] transmission lines are within an AACE Class 3 estimate accuracy congruent to the requirements of Decision Gate 3 (p.43) ... From the review of the written documentation provided, design methodology, and information recorded in the Nalcor staff interviews, MHI has found that the Decision Gate 3 estimates for all transmission facilities were prepared in accordance with good utility practice and within an AACE International Class 3 level accuracy range (p. 52) ... The costs of the Strait of Belle Isle marine crossing have increased marginally but are considered to be reasonable and within the AACE Class 3 estimate range for Decision Gate 3 (p. 55)." [P-00058 (pp. 43, 52, 55)]

as to the Muskrat Falls GS, MHI said: "Based on the amount of engineering and level of costs provided [for the MF Generating Station], MHI considers the Decision Gate 3 cost estimate to be an AACE Class 3 estimate and therefore would be considered reasonable for the Decision Gate 3 project sanction stage." [P-00058 (p. 58)]

as to the Labrador Transmission Asset ("LTA"), MHI said: "Overall the Labrador Transmission Asset Decision Gate 3 estimate is comprehensive, reasonable and prepared in a manner consistent with best utility industry practice." [P-00058 (p. 59)]

and as to the Muskrat Falls GS and LTA, MHI concluded: "2.6.6 Summary...From a review of the information provided, Nalcor has performed the design, scheduling and cost-estimating work for the Muskrat Falls Generating Station and the Labrador Transmission Assets with the degree of skill and diligence required by customarily accepted practices and procedures utilized in the performance of similar work." [P-00058 (p. 59)]

And as to the MF Project generally, MHI said: "The current Lower Churchill Project design, schedules and cost estimates are considered consistent with good utility practice. The design, construction planning, cost estimate and schedule are comprehensive and sufficiently detailed to support a Decision Gate 3 project sanction and appropriate for input into a cumulative present worth analysis." [P-00058 (p. 59)]

(iii) In relation to risks (i.e. contingency),

as to the HVdc transmission line, electrodes, and collector system, MHI said: "Sufficient contingency has been allocated to this portion of the project to offset any unforeseen project risks." (p. 39) "Nalcor has identified the key areas of project risk in its project management strategy." (p. 43) "At this stage, the major risks to be addressed for the transmission line complex remain as contractor cost, labour availability and productivity. Nalcor has identified this as a major risk and has identified mitigation strategies." (p. 44) [P-00058 (pp. 39, 43, 44)]

as to the Muskrat Falls Generating Station, MHI said: "The Muskrat Falls Generating Station project contingency in the Decision Gate 3 estimate is 9.0%, but maybe higher with allowances if required...the Nalcor project team believes that the current Decision Gate 3 estimates input detail and conservative assumptions justify the chosen contingency amount. Nalcor has noted that there is fixed pricing in place for approximately 25% of the project value, thus the 9% is reasonable for the Muskrat Falls Generating Station." [P-00058 (p. 58)]

as to the Labrador Transmission Assets, MHI said: "The LTA Decision Gate 3 estimate includes a 9.1% contingency which is reasonable when combined with conservative inputs on labour and indirect costs." [P-00058 (p. 59)]

- (iv) In relation to the MF Project generally, MHI's overall recommendation read: "Given the analysis that MHI has conducted based on the data and reports provided by Nalcor, MHI recommends that Nalcor pursue the Interconnected Island option as the least cost alternative to meet future generation requirements to meet the expected electrical load in Newfoundland and Labrador." [P-00053 (p. 83)]
- 81. Within GNL, MHI's confirmation that Nalcor's "design, construction planning, cost estimate and schedule are comprehensive" and MHI's agreement with Nalcor's DG3 recommendation created a level of confidence sufficient to pass through DG3 and sanction the MF Project.

XI. GNL's Knowledge of Nalcor-hired Consultants and Risk Analysis

- a. IPR, IPA, IPR, Westney, Navigant, Validation Estimating
- 82. While GNL received neither copies of reports by external consultants (hired by Nalcor) concerning their reviews of Nalcor's capital cost and schedule estimates nor copies of reports by external risk consultants hired by Nalcor, Nalcor routinely briefed GNL on the work of its external consultants. GNL believed the recommendations and insights of Nalcor's external consultants were being taken into account by Nalcor.
- b. Federal Government Loan Guarantee Analysis
- 83. During the federal loan guarantee discussions in 2012 and 2013, Canada did its own

economic analysis of the MF Project. The positive conclusions of Canada's analysis gave additional affirmation to GNL that the MF Project was the best new supply choice.

XII. Did GNL have Sufficient and Accurate Information at DG3?

84. Based on the foregoing, GNL was satisfied that its information base at DG3 was sufficient and accurate. Mr. Thompson testified:

Well, at the time, reading the MHI [DG3] report, we would've felt that there was a review done of the cost estimate, and from the words that were presented in the report, we would've felt that there was an endorsement of the procedures or the reasonableness of the – at least the techniques and processes that Nalcor would've used to arrive at the cost estimate for that stage of engineering. So we would've been satisfied that the review had been done. That's, I guess, the best I can say in response to that. [MFI transcript, 14 Nov 2018 (p. 80)]

XIII. Preparing for GNL Oversight of MF Project Execution

- 85. The 2 April 2012 Cabinet submission [P-00529 (pp. 1-3, 13-14); P-03439] from the NR Minister sought approval to develop a GNL oversight mechanism for MF Project construction. To develop a list of potential oversight mechanisms, NR hired Robert Noseworthy, former Chair of the PUB. By early October 2012, Mr. Noseworthy's analysis was completed and summarized in a NR information note. [P-03440] A NR direction note dated 27 November 2012 set out a recommendation by NR and Justice that: "[f]or the Project Development / Construction Phase [GNL] utilize the same independent engineer as Nalcor to review Project expenditures and periodically (quarterly due to the level of expenditures) provide a report to [GNL] on the reasonability of costs incurred with such reports to be subsequently released to the public"; and the Auditor General's Office perform oversight during the Project Operations Phase. [P-01128 (p. 4)]
- 86. Pursuant to a 26 April 2012 Cabinet directive [P-03439], during the first seven months of 2013 NR pursued a "Project Oversight / Independent Engineer / Funding Protocol Agreement". NR sought to implement a cost accounting protocol that included an independent pre-financial close oversight process to review MF Project costs for reasonability and to ensure prudent spending. NR also considered requirements for Nalcor's corporate governance model. [P-03442 (p. 13)]
- 87. In March 2013, NR communicated with Nalcor about GNL potentially retaining Canada's IE during the pre-financial close phase to report on whether GNL funds were being spent in a reasonably prudent manner and on whether the MF Project was on schedule. NR also raised the idea of GNL retaining the IE for the MF Project's construction phase. [P-02170 (pp. 2-3)]
- 88. From March to July 2013, NR pursued the idea of GNL retaining the IE. By late June, that effort had culminated in NR receiving a copy of Nalcor's executed IE contract, the IE's SOW, and the IE Reliance Agreement. [P-01808 (pp. 1-3); P-02174 (p. 1)] In early July, NR asked Justice and NR's external lawyers whether GNL could retain the IE. [P-1808 (p. 1)]

89. Meanwhile, in mid June 2013, Nalcor gave GNL (Finance DM Laurie Skinner and NR ADM Paul Morris) a lengthy LCP "Governance and Controls Overview" presentation on "the governance structure and cost control procedures that exist within LCP" and on Nalcor's efforts "to ensure costs are being managed to the DG3 cost estimate that [GNL] based [its] sanction decision on". [P-02171 (pp. 2-4); P-02172; P-02350] In late June 2013, Nalcor in writing assured GNL it could receive the IE's Phase 1 (prior to financial close) and Phase 2 (construction period)] reports. [P-02174 (p. 1); P-01808 (pp. 1-2)]³ In response to a persistent GNL request for the latest IE draft report "ASAP" [P-02176 (pp. 4-5)], Nalcor in mid July 2013 gave GNL access to the IE's 12 July 2013 draft report. [MFI transcripts, 21 March 2019 (pp. 90-101) and 25 March 2019 (pp. 46-61); P-02177 (p. 3)].

XIV. Mr. Thompson's Knowledge of Key Pre-sanction Issues

- 90. Nalcor never discussed with Mr. Thompson the idea of removing a strategic risk estimate amount from the capital cost estimate in order to arrive at an agreement with Emera. Mr. Thompson's notes on the Emera 2010 negotiations indicate the focus was on a price range between \$125 and \$135 per megawatt hour, with cost risk sharing being based on existing cost estimates and extra energy sales. [P-00265 (pp. 9-14, esp. p. 12)] Nalcor never told Mr. Thompson it was separating strategic risk from the capital cost estimate in order to fashion a price for Emera. Similarly, Nalcor never told Mr. Thompson of Nalcor's decision, prior to DG2, to change its capital cost estimate(s) from P-75 to P-50.
- 91. While Nalcor did periodically brief GNL (including Mr. Thompson) on key risk issues, Nalcor did so without using the term "strategic risk" and never explained the distinction between strategic risks and tactical risks. Nalcor did not use dollar figures to quantify for Mr. Thompson (or, to his knowledge, anyone else in GNL) the risks Nalcor categorized as stategic. Nalcor did not tell Mr. Thompson that at DG2 Westney estimated strategic risks at \$300 \$600 million and that at DG3 Westney estimated the strategic risk at \$497 million. Nalcor did not tell Mr. Thompson that Nalcor treated certain risk estimates (i.e. Westney's strategic risk estimates) as separate from and not to be included in the amount allocated for contingency in Nalcor's capital cost estimates. Mr. Thompson testified as follows about risk(s) and Nalcor's failure to advise him of Westney's DG2 and DG3 strategic risk estimates:

...certainly, Nalcor always did talk to us about risks and the fact that risks were generally contained – dealt with within the contingency estimate and that the contingency estimate would decrease over time as the amount of engineering increased...and [what] I – really, I speak for myself – [understood] was that the risk of a construction cost overrun was being addressed in the contingency estimate. [MFI transcript, 14 Nov 2018 (p. 33)]

...we knew that the Westney Consulting firm was involved in – with Nalcor in their work. And we probably knew that they were doing risk analysis. But...we were never presented with this in my recollection...that's why it seems so jarring to read about [Westney's \$497 million DG3 strategic risk estimate] in the Grant Thornton report because I had no recollection of this...it was news to me...it was jarring to me. I didn't remember it. [MFI transcript, 14 Nov 2018 (p. 75); P-00833]

Well, I feel it's something that we definitely should've seen, and I don't have an explanation as to why it wasn't presented to us. So I'm really looking forward to hearing that explanation. But, yes, I feel letdown at – certainly today. [MFI transcript, 14 Nov 2018 (pp. 81-82)]

92. Nalcor did not tell Mr. Thompson (nor, apparently, anyone else in GNL) that at DG3 Westney estimated there was a very low probability (P-3) of Nalcor achieving its schedule of July 2017 for first power. Mr. Thompson testified:

No, we didn't have this information...I didn't realize that anyone had assessed the likelihood of meeting the July [2017] date at such a low probability. That's a surprise. [MFI transcript, 14 Nov 2018 (p. 76)]

93. Within Nalcor's Project Management Team, Jason Kean was primarily responsible for risk assessment and quantification. Mr. Kean prepared Nalcor's "Decision Gate 3 Project Cost and Schedule Risk Analysis Report", which was issued on 1 October 2012 with the approval of MF Project Director Paul Harrington and LCP–VP Gilbert Bennett. The DG3 Risk Analysis Report included Attachment B.15, AACE International Recommended Practice No. 42R-08: "Risk Analysis and Contingency Determination Using Parametric Estimating" (26 January 2009) [P-00130 (pp. 310-319)]. John Hollmann was a contributor to this succinct 8-page AACE publication, which referenced Edward Merrow and Dr. Bent Flyvbjerg. AACE No. 42R-08 said of itself:

This recommended practice (RP) of AACE International (AACE) defines general practices and considerations for risk analysis and estimating cost contingency using parametric methods...This RP is new. [P-00130 (p. 312)]

The AACE Recommended Practice warned:

One of the most difficult systemic risks to deal with is estimate bias. When estimate bias is psychological or political in nature, it is particularly difficult to measure and quantify because it deals with deception, intentional or unintentional. To assess the impact of these types of risks (i.e., optimism bias and strategic misrepresentation), a methodology called reference class forecasting (not covered here), a form of estimate validation, has been proposed by Flyvbjerg. Whether and how these systemic psychological and political risks can be better measured, and incorporated in parametric techniques is an area of active research, particularly for government funded (i.e., politically charged) infrastructure mega-projects. In any case, estimate validation (to detect bias among other objectives) is always a recommended practice in conjunction with risk analysis. [P-00130 (p. 314)]

94. Despite Nalcor knowing of the warning in AACE's January 2009 Recommended Practice that "[o]ne of the most difficult systemic risks to deal with is estimate bias", Nalcor did not advise Mr. Thompson about that or about the generally problematic nature of megaproject cost and schedule estimating. Nor did Nalcor advise Mr. Thompson about the viewpoints, divergent as they were, of Dr. Flyvbjerg, Mr. Merrow, and Mr. Hollmann as to the root cause(s) of megaproject cost and schedule overruns.

Concluding Comments

- 95. Commission Co-counsel has suggested that Premiers, Cabinet ministers, and GNL public servants were "naïve" to rely on information Nalcor provided concerning its capital cost estimates, schedule estimates, and risk assessment. Dr. Mel Cappe, an expert on governance and the role of the public civil service, testified that: "...it is incumbent on the [crown] corporation to do good analysis and be honest and truthful, et cetera, and forthcoming." [MFI webcast, 26 July 2019 (AM)] In weighing Co-counsel's suggestion, the Commissioner is asked to consider Dr. Cappe's assertion, as well as comments by La Forest J. in *Hodgkinson v. Simms*, [1994] 3 SCR 377, 1994 CanLII 70 (SCC) concerning ad hoc fiduciary duty. (Appendix "B" (herein at pp. 40-42) paraphrases La Forest J.'s comments.) While Mr. Thompson is not suggesting there is a need to determine Nalcor's fiduciary / non-fiduciary status vis-à-vis GNL, the principles enunciated by La Forest J. can be used: (i) when considering the reliance public servants (including Mr. Thompson) could, bearing in mind what was then known to them, reasonably place on the information Nalcor provided; and (ii) when considering Nalcor's apparently deliberate decisions to omit to give or to delay giving GNL substantive and timely and accurate information concerning the MF Project's capital cost estimates, schedule estimate, and risk assessments.
- 96. When Commission Co-counsel asked Mr. Thompson whether GNL had provided reasonable and adequate oversight of Nalcor and the MF Project during the period leading up to DG2, he responded:

...in general, the government...was being assured at that time [Sept / Oct 2010] that there were external eyes on the experience, the quality of Nalcor's work and that was giving us additional reason to be satisfied...I believe that we did good work and we were satisfied with the work that was being done by Nalcor. We did a focused but very good review of the [DG2] CPW comparison...in the context of the time, we would have felt satisfied and felt it was reasonable...So let me go a little bit broader again. Government has created a Crown corporation called Nalcor. It's appointed a board of directors to play the role that a board of directors should...the board of directors is appointed by the shareholder, by the government and has a role to play, and we expected and relied upon them to play that role. The government plays a part in appointing the CEO, and the CEO is accountable and therefore aligned with the government as well...We had – we knew from...many, many meetings over this period...of several years building up to this period around 2010...that we're aware of the kind of team that was being built in Nalcor, and, again, we're pleased with the quality of the team that was being built up. And then we did have the affirmations of that, at least, that were communicated to us from external reviewers. So this was the place where we sat when we were going in to this August-to-December period in 2010. And so the options analysis was becoming clear to us, perhaps as early as August, and then we had the presentation towards the end of September. And what I can say to you is that we felt that the options analysis that excluded other things, other than Isolated Island and Interconnected, was a good analysis. We were satisfied with it and we felt that we had been given good information and, indeed, at that point in time, we relied upon it. It did get tested – this was the start of a process as well. This was the DG2 stage – It was, you know, agreement in principle with Emera. It was feasibility level or concept study with a limited amount of engineering being done with lots of time to come to, of

course, gain more confidence in all of the work that Nalcor had done. But sitting there at that time and looking at the words that I wrote...would reflect sort of the accumulation of what I've just described...I don't recall ever asking to see [Nalcor's DG2 external reviews] and I believe that we relied upon their briefings to us about them... again, putting myself back in that time, which is hard to do, I can only say that we felt comfortable and/or – and satisfied with the level of detail that Nalcor was providing to us, given all the other levels of scrutiny that were occurring. So that would probably explain why we didn't ask for those reports...the board of directors and the external consultants that we know had been engaged and were satisfied with the – as well, the multiple meetings that we were having with Nalcor and the opportunity to ask questions and get answers and develop, you know, a better understanding of the analysis that had been done. So...that's the body of knowledge that we had and felt satisfied with at the time. [MFI Transcript, 14 Nov 2018 (pp. 24-26)]

97. When Commission Co-counsel asked Mr. Thompson whether GNL had provided reasonable and adequate oversight of the MF Project between the Emera term sheet signing at DG2 and sanctioning at DG3, he responded:

I do believe it was reasonable and adequate...and I'll just cover a few layers of that. We had received...the DG2 review from the PUB, from MHI...The MHI report...gave rise to...what we regard as a satisfactory examination, and as did the PUB report itself, with the exception that they didn't draw a conclusion... also, there continued to be many meetings, throughout this period, directly with Nalcor officials, senior officials, mainly. We didn't, of course, go and meet with...the engineering team. But we were briefed regularly on...Nalcor's perception of risk issues that needed to be managed...and we were made aware of other inputs from consultants that they were engaging along the way. Then we had the MHI DG3 review, which...added to our sense that the work that was being done was a good calibre work, sound and reasonable. And then we had these additional reports that were commissioned by the government to look at other options that had been set aside. 4 So yes, we felt that we were doing a credible job in providing independent oversight to the company and...on the project at that time... I'm saying that we felt that we did a good job and we certainly weren't naïve...that's the word I'm contesting...I think that if these issues are shown to have been – and to a large extent they are, because we didn't receive them; then these are things that should've been put in front of us. And I'm disappointed that they weren't...you'll have to find out from other witnesses why that was the case and then draw judgment about...whether we were naïve or otherwise. I'll leave that to others to judge. But I don't think so based on my recollection. [MFI transcript, 14 Nov 2018 (pp. 81-82)]

- 98. Mr. Thompson stands by his answers. What constituted reasonable and adequate oversight of Nalcor and the MF Project should be considered and adjudged with the following in mind:
 - (i) In Nalcor's advisory role, Nalcor's ability to harm GNL and GNL's susceptibility to be harmed arose from the fact that GNL was unlikely to view Nalcor's advice with suspicion of the sort routinely attendant in an arm's length commercial relationship.

- (ii) As the one receiving advice from Nalcor, GNL should not have needed to protect itself from abuse of power (viz., information delayed, information denied, misleading information) by Nalcor when the very basis of Nalcor's role as a crown corporation was to use its special skills in the interests of GNL. In sharp contrast to an arm's length commercial relationship, which GNL would expect to be characterized by self-interest, the very essence of the Nalcor-GNL relationship was the trust and confidence that GNL reposed in Nalcor. Nalcor assiduously fostered that trust and confidence.
- (iii) GNL's perception of its "degree of vulnerability" should not be considered on the basis of some hypothetical notion that GNL had an obligation to protect itself from harm, but instead on the basis of the nature of GNL's reasonable expectations. GNL reasonably expected Nalcor to provide it with expert advice and to do so forthrightly. GNL reasonably expected Nalcor to act loyally and in GNL's best interests. GNL was more vulnerable to abuse of power by Nalcor than if GNL had known it should take measures to protect itself, as it clearly would in an arm's length commercial relationship. In the context of the relationship between GNL and a crown corporation with a board of directors appointed by GNL, and given the independent scrutiny that affirmed the quality of Nalcor's work, GNL exercised appropriate oversight.
- 99. In short, Mr. Thompson did not err by not having undertaken additional measures to protect GNL from "abuse of power" by Nalcor (see Appendix "B"). The very basis of the Nalcor-GNL relationship was that Nalcor would loyally use its special skills on behalf of GNL and in GNL's best interests. Mr. Thompson was neither naïve nor optimistically biased when he relied on Nalcor's expertise and loyalty.

Dated at St. John's, Newfoundland and Labrador, the 5th day of August, 2019.

Sgd: Bernard M. Coffey

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Note:

Further to the general invitation extended by the Commissioner at the conclusion of Phase 3, Appendix "C" (herein at pp. 42-48) is a comment by Mr. Thompson on certain matters raised by Dr. Kelly Blidook in his report for the MFI.

Appendix "A"

Scope of Services ("SOS") / Scope of Work ("SOW") for MHI's DG3 Review

- 100. During Phase 1, questioning concerning MHI's DG3 review focused on removal of paragraph 2. (xi) from MHI's initial 2 April 2012 proposal for a SOS for a DG3 review and linked that removal to an exclusion of Nalcor's strategic risk analysis from MHI's final SOW. Less attention was given to the simultaneous removal from MHI's initial SOS proposal of a review of "Nalcor's most recent risk analysis assessment for gaps, suitability to task, and appropriateness of reserve margins for costs estimate contingency." [Emphasis added.]
- 101. The SOS in MHI's 4 July 2011 contract with the PUB [P-00547 (p. 5)] contained no explicit reference to MHI conducting a review of Nalcor's work in relation to "risk", "risk analysis", or "contingency". MHI did, nevertheless, review Nalcor's DG2 tactical risk estimates and strategic risk estimate, and referenced both in MHI's DG2 report for the PUB. The governing clause in MHI's SOS for the PUB read:

The Services which the Consultant shall perform or cause to be performed with diligence, skill and care include the following:

- (a) A review of all previous work performed by consultants and others related to the Projects and the Isolated Island Option which are necessary for the Consultant to perform the Services. The level of review shall be sufficient for the Consultant to report on whether the work was performed with the degree of skill, care and diligence required by customarily accepted professional practices and procedures normally completed in the performance of similar work.
- (b) A comprehensive review of the Cumulative Present Worth (CPW) analysis of the Projects and the Isolated Island Option to enable the Board to identify the least-cost alternative.
- (c) Preparation of a final report which will include, as a minimum the following:
- an executive summary;
- a description of the Consultant's review team;
- a description of the methodology used to complete the Services;
- a summary of the results of the review, including significant data gaps and issues, if any.
- 102. Wording in MHI's January 2012 DG2 report for the PUB indicated that the phrase "costs estimate contingency" for MHI encompassed an estimate (i.e. an amount) for "tactical risk". MHI's DG2 report for the PUB [P-00048; P-00049] included these references to "contingency", "contingencies", "risk", "risk analysis", "contingency estimates", "tactical risks", and "risk elements":
 - 2.2 Review of Cost Estimates and Benchmarks
 For the two options, MHI reviewed the base estimate costs, the estimates for *contingency*, and the escalation allowance costs... the *risk analysis* for *contingency*

determination at each stage of the project uses an appropriate AACE International recommended technique to account for specific project risks, and a contingency developed...MHI reviewed the cost estimation process developed by Nalcor for the Infeed Option. Capital cost estimates were developed by Nalcor from base estimates to which *contingency estimates* and escalation allowances were added. The base estimates were developed in accordance with the principles found in the AACE International recommendations. Various price and productivity factors were applied by Nalcor to the key inputs to develop the revised base estimates. Nalcor's *contingency* percentage was evaluated and applied to the base estimate to reflect the impact of definition and performance risks, after which an escalation factor was determined to recognize cost changes associated with changes in productivity, technology, and market conditions. The indices used by Nalcor to develop the escalation provision were based on Global Insight's first quarter 2010 report. Each of the applicable *contingency estimates* and escalation allowances were applied to each of the base costs of the two options, to develop the costs used to ultimately form the basis of the CPW analyses. Given the timelines for the extended construction schedule, an Allowance for Funds Used During Construction was also capitalized as part of the construction costs. [P-00048 (pp. 35-38)]

6.6 Holyrood Thermal Generating Station Replacement For the Isolated Island Option...cost estimates and power output were found to be reasonable, with modifications applied to the cost for *contingency* and escalation. [P-00048 (p. 82)]

5.5.8 Capital Cost Estimate and Risks

The overall capital cost of the Muskrat Falls project comprises the base cost estimate plus allowances for contingencies, cost escalation, and interest during construction. The following paragraphs provide comments on the methods adopted by Nalcor to establish estimate *contingencies* and an allowance for cost escalation during construction. The estimate *contingency* makes provision for uncertainties, risks, and changes within the project scope. Nalcor has defined these as "tactical" risks that are within the project domain and, as such the cost is part of the capital cost for the Project. Tactical risks are assumed to be those elements that are within the control of the Owner's project management team. Tactical risks arise from uncertainties in the information available for the cost estimate. An example can be differences in the valuation of cost elements or variation in the estimate of work quantities for work carried out within the project scope. Nalcor reported that *contingencies* were estimated through examination of the cost estimate to identify factors most likely to cause variation in the project costs. The potential change in these factors was then assessed through a combination of analytical tools and estimator's experience. Risk analysis using Monte Carlo simulation was adopted to evaluate the potential range in the cost estimate given the identified *risk* elements...The approach adopted for the project cost contingencies and escalation is reasonable. Both elements are part of the capital cost estimate for the development, with the total number represented by the expected capital cost expenditure. Note however, that the project cost estimate (sum of Base Estimate, plus *contingency*, plus escalation allowance) does not include any provision for changes to elements such as the project scope, or unexpected events such as strikes, abnormal weather, etc. A financial

contingency would normally be established to allow for such factors in creating the project budget. [P-00049 (pp. 97-98)] [Emphasis added.]

In contrast to MHI's afore-noted references to "contingency", "contingencies", "risk", "risk analysis", "contingency estimates", "tactical risks", and "risk elements", all of which related to Westney's tactical risk analysis, MHI's DG2 report said comparatively little about strategic risk.

2.3 Risk Review

MHI reviewed the risk analysis components of all reports and studies for both the Infeed and Isolated Island Options including the "Technical Note – Strategic Risk Analysis and Mitigation" FN22. Nalcor defined risks into two categories: tactical and strategic for the Infeed Option. Tactical risks were separated into definition risks which evaluated the design and planning aspects of the project, and performance risks associated with contractor performance, weather delays, material pricing etc. Strategic risks include background risks such as changes in scope, market conditions, location factors etc. and organization risks which are associated with the size and complexity of the project.

As a part of the technical reviews, MHI noted that the segments of reports that focused on risk were tied for the most part to the determination of costs, the timing of projects, and ongoing operational issues. MHI has documented the risks where appropriate throughout this report. Significant items are noted in the Key Findings sections.

FN22: CE-52 Rev .1 (Public), Nalcor, "Technical Note: Strategic Risk Analysis and Mitigation", July 2010 [P-00048 (pp. 38-39)]

- 103. While the PUB in its 30 March 2012 report did not expressly endorse Nalcor's rejection of Westney's recommended creation of a strategic reserve for DG2, nor did the PUB express any concern about Nalcor having done so. MHI knew the PUB, like MHI, had had access to the details of Westney's DG2 strategic risk analysis. MHI personnel were conversant with project cost estimate and schedule risk analysis and presumably had read the PUB's March 30 report; MHI may have assumed, when dealing with GNL, that GNL accepted that Nalcor's strategic risk estimate and strategic reserve at DG3 would be no higher than at DG2, when Nalcor in effect had valued it at \$0.
- 104. Mr. Thompson, Mr. Kennedy, and Ms. Dunderdale testified that prior to 2018 they did not know about a decision having been made, at a 6 April 2012 meeting or otherwise, to exclude a review of Nalcor's DG3 risk analysis from MHI's DG3 SOW. They testified it was only in 2018 that they learned that Nalcor placed risks in different categories, namely tactical and strategic, and treated them differently. They testified that they considered risk generically and understood it to be something Nalcor analyzed and addressed through a contingency amount in the MF Project's capital cost estimate. And they testified they had not known that Nalcor at DG3 chose not to include Westney's DG3 strategic risk estimate of \$497 million in the capital cost estimate Nalcor communicated to GNL and the public.
- 105. GNL (including Mr. Thompson) had an understanding, based on information Nalcor supplied, that the MF Project capital cost estimate was calculated based on the equation:

capital cost estimate = base cost estimate + escalation + contingency

where contingency is an amount intended to pay for cost(s) associated with risk(s) that materialize. Mr. Thompson testified:

I certainly thought that the main construction risks were being dealt with inside the contingency, which was inside the capital cost estimate. [MFI transcript, 14 Nov 2018 (p. 34)]

- 106. During his MFI testimony, Mr. Bown attributed the removal of a review of Nalcor's DG3 risk analysis from MHI's SOW to a time constraint requiring MHI's DG3 review to be completed in time for a July 2012 HOA debate and the anticipated unavailability of Nalcor's risk analysis sufficiently early within that timeframe. During his testimony, Mr. Bown acknowledged that, "apart from what's recorded in" Mr. Kennedy's notes, he had no "independent recollection of what was said" and he did not "remember any discussion about risk analysis and contingency backup" at the April 6 meeting. [MFI transcript, 5 Dec 2018 (p. 116)] In recounting the April 6 meeting, Mr. Bown relied on Mr. Kennedy's notes, which notes did not explicitly reference a decision to exclude a review of Nalcor's risk analysis from MHI's DG3 SOS. What the evidence, including Mr. Bown's testimony, indicated is that in early April 2012 Mr. Bown was directed to retain MHI to conduct a DG3 review for GNL, which review was to be completed in time for a planned July 2012 HOA debate. Implementation of that direction and taking the logistical steps necessary to retain MHI and have its DG3 review completed were left to Mr. Bown and NR.
- 107. A detailed chronology of the process that lead to the SOW for MHI's DG3 review follows:
- (i) A meeting "re PUB Report" was held on 1 April 2012. Kathy Dunderdale (Premier), Ed Martin (Nalcor CEO); Jerome Kennedy (NR Minister); Charles Bown (NR Assoc DM); Brian Taylor (Premier Dunderdale's Chief of Staff); Glenda Power (Premier Dunderdale's Chief of Communications): and Robert Thompson (Clerk of the Executive Council) attended. Mr. Kennedy's notes included the comment: "– MHI review we decided to hire same experts PUB went to". [P-01237 (p. 1); P-01657 (p. 1)]
- (ii) On 2 April 2012 at 10:36 AM, Mr. Bown sent an email [P-00259] to Nalcor's Gilbert Bennett saying:

I've provided a draft Work Scope below. We can discuss to refine parameters and dates. I'd appreciate hearing from you at your earliest convenience.

Scope of Work

1. The Consultant will review and report to the Client, in respect of the "Projects" and the "Isolated Island Option" being whether the Projects represent the least cost option for the supply of power to Island Interconnected Customers over the period of 2011- 2067, as compared to the Isolated Island Option.

- 2. In completing this work, the Consultant shall consider and evaluate factors it considers relevant including NLH's and Nalcor 's forecasts and assumptions for the Island load, system planning assumptions, and the process for developing and comparing the estimated costs for the supply of power to Island Interconnected Customers;
- 3. The Consultant will use all information developed by and available to Nalcor Energy relating to Decision Gate 3 as of 31 May 2012, by which date all Decision Gate 3 information is anticipated to be complete.
- 4. The Consultant will engage openly with the Proponent to access any and all information required to complete the work.
- 5. The Report will be delivered on 15 June 2012.
- 6. The Consultant will also provide such additional advice and other services as may be required from time to time by the Client.
- (iii) On 2 April 2012 at 2:40 PM, GNL issued a media release [P-00727] that said:
 - ...The Premier announced today that the Provincial Government has engaged Manitoba Hydro International, the same experts engaged by the PUB, to provide external and independent analysis of the Decision Gate 3 information prior to any decision on whether or not to sanction. Information from the Decision Gate 3 process...will be tabled in the House of Assembly. The Provincial Government is prepared to have a special debate in the House of Assembly once this information is available.
- (iv) On 2 April 2012 at 4:06 PM, MHI's Paul Wilson sent Mr. Bown an email [P-00258; P-00740] that said:

...as discussed please find enclosed MHI's letter to M. Greene on items MHI considered necessary for the DG3 decision.

Attached was a copy of a 22 February 2012 letter from MHI to the PUB's Maureen Greene "Re: items to be completed for DG3 decision". MHI's February 22 letter had suggested that certain items "be considered for inclusion as part of Decision Gate 3 (DG3)", including:

Update of all financial related inputs including Capital Cost Estimates to a minimum Class 3 AACE estimate project budget...Escalation Rates, and Contingency Allowances ...[and] Update of the Project Risk Assessment and an appropriate strategic reserve amount to be applied to the project.

- (v) On 3 April 2012 at 12:40 AM, Mr. Wilson sent Mr. Bown an email [P-00741] with a "Scope of Services (Draft)" dated 2 April 2012 "to get our discussions started". The SOS included a paragraph that read:
 - 2. (xi) Risk Analysis review. Review Nalcor most recent risk analysis assessment for gaps, suitability to task, and appropriateness of reserve margins for costs estimate contingency. Information required: Strategic Risk Assessment Updated Report, and Westney update if available.

(vi) In his 4 Apr 2012 email re: "scope" to Mr. Bown [P-01236], Nalcor's Brian Crawley said:

Charles... I understand Ed was trying to reach you on this. We are still working it but do have major concerns with what has been proposed. Will be in touch.

- (vii) A meeting "re MF sanction" was held on 6 April 2012. Mr. Kennedy's notes indicated the attendees were Mr. Martin, Mr. Kennedy, Mr. Bown, Mr. Taylor, Ms. Power, and Mr. Thompson. Mr. Kennedy's notes [P-01237 (p. 10); P-01657 (p. 2)] included:
 - June 7 cutoff May 18 for group
 - |-> Risk analysis, contingency back-up
 - DG3 cap costs can be done by May 18
 - MHI updated report give MHI information as it becomes available
 - Premier *there have to be deadlines*
 - |-> MHI's involvement changes timelines

What we need
☐ Schedule
□ DG3 #s

- (viii) On 12 April 2012 at 10:35 AM [P-00260], Mr. Bown forwarded Mr. Wilson's 3 April 2012 email, with the "Scope of Services (Draft)" attachment that contained MHI's originally proposed paragraph 2. (xi), to Paul Scott and Walter Parsons, who were NR subordinates of Mr. Bown. It can be inferred Mr. Bown did so in anticipation of a conference call NR had scheduled with MHI's Paul Wilson for 11:30 AM [i.e. 9:00 AM Manitoba time] that day. The basis for this inference is that on 12 April 2012 at 11:05 AM NDT Mr. Bown received an email from MHI's Paul Wilson that said: "this is the revised SOW for our conference call at 9:00 am today." [P-01527] 9:00 AM Winnipeg time is 11:30 AM St. John's time.
- (ix) On 12 April 2012 at 11:05 AM, Mr. Wilson sent Mr. Bown an email [P-01527] with an attached revised SOS, which SOS was dated 11 April 2012 and captioned Revision 2. Paragraph 2. (x) of Revision 2 replicated the wording in former paragraph 2. (xi). As noted above, in his covering email re: "NFL2 SCOPE OF SERVICES Government of Newfoundland Muskrat Falls DG3 review", Mr. Wilson told Mr. Bown: "this is the revised SOW for our conference call at 9:00 am today." As had MHI's Scope of Services (Draft) dated 2 April 2012, Revision 2 also listed 5 June 2012 as the scheduled completion date for submission of MHI's final report and 30 June 2012 as the scheduled date for completion of MHI's services.
- (x) If Mr. Bown was on 6 April 2012 directed to remove from MHI's SOS any review of Nalcor's DG3 risk analysis (i.e. any review of tactical risk or strategic risk or contingency), then:
 - (a) Why was Mr. Bown uncharacteristically tardy in so advising MHI and Mr. Bown's NR subordinates (Paul Scott and Walter Parsons) of such a direction?

- (b) As Ed Martin would have been present when Mr. Bown was given any such explicit direction, why is there nothing in Nalcor's records reflecting Mr. Martin having informed his Nalcor subordinates about a decision of significance to them?
- (c) Why would Nalcor's Brian Crawley on 9 April 2012, three days after April 6, send an email, the subject of which was "scope of work MHI review", to Nalcor's Gilbert Bennett saying: "Ed asked us to hold off on the MHI scope of work while he worked it with the Province. Have you heard anything on this since?" [P-01179]
- (d) Mr. Thompson in his 13 April 2012 email to NR Minister Kennedy listed "the items to be included for HoA" as including "updated Interconnected Opex and Capex", "escalation estimate", "contingency estimate", and "completed MHI report". [P-01244] If Mr. Thompson on April 13 believed that Nalcor's contingency estimate would be available for the HOA debate, why would he concur in GNL excluding it from MHI's DG3 review?
- (xi) On 15 April 2012, Mr. Wilson sent an email [P-00261] to Mr. Bown that indicated he and MHI's Al Snyder were to meet with Mr. Bown in St. John's on 17 April 2012.
- (xii) Mr. Bown testified he participated in a conference call on 16 April 2012 with NR Minister Kennedy and Ed Martin. Mr. Kennedy's notes [P-01237 (p. 13)] were captioned "Conference call re: HOA debate" and referenced Ed Martin as having said: "will have estimates for DG3 numbers for HOA including MHI's review at a minimum, mid July"; Mr. Kennedy's notes also referenced: "MHI Terms of Reference are important | Scope of Work".
- (xiii) In his 19 April 2012 email to Mr. Bown, the subject of which was "NFL2 Scope of Services Government of Newfoundland Muskrat Falls DG3 review" [P-00262; P-00742], Mr. Wilson wrote:

...it was a pleasure to meet with you and Walter [Parsons] over the last two days. As a result, we have gained a better understanding of the project constraints, goals, and inputs of this important review project. Al and I have revised the scope of work which now captures all the important elements and factors in the data availability and schedule. We have also removed the items that do not require our involvement...I will...wait to hear from you if this scope of work is agreeable.

Attached to Mr. Wilson's April 19 email was MHI's draft "Scope of Services 19 April 2012 Revision 6", which did not include the wording in paragraph 2. (x) of MHI's SOS Revision 2 dated 11 April 2012.

- (xiv) In relation to "risk analysis", MHI's Revision 6 SOS dated 19 April 2012 referenced MHI doing the following in relation to the Muskrat Falls GS:
 - "2. (iii) Review the Muskrat Falls GS DG2 design changes, cost estimates and construction schedules...review cost estimate inputs..." with the "Information required" by MHI to include "Muskrat Falls updated master cost estimate, Muskrat Falls updated

master project schedule...Muskrat Falls GS risk analysis", and the "Outcomes" provided by MHI to include a "Review and assessment of project risks".

Revision 6 contained similar SOS language for: the HVdc Converter Stations and associated AC switchyards; the overhead HVdc transmission line and associated AC collector transmission lines; and the SOBI marine crossing.

- (xv) Revision 6, sent by MHI to Mr. Bown on 19 April 2012, the day after the MHI / GNL / Nalcor April 17 and 18 meetings in St. John's, changed the completion date for submission of MHI's final report by nearly two months from 5 June 2012 (as in Revision 2) to 31 July 2012, and changed the completion date for MHI's services from 30 June 2012 (as in Revision 2) to 30 September 2012.
- (xvi) Mr. Bown used a 19 April 2012 email [P-00262; P-00742] to forward MHI's Revision 6 to Walter Parsons without commenting on what would have been had a direction actually been given at the April 6 meeting not to have MHI review Nalcor's DG3 risk analysis an ongoing misunderstanding by MHI as to what its DG3 review would require. If on April 6 Mr. Bown had been so directed, why would MHI, after two days of face-to-face meetings, still expect Nalcor to provide information that included "Muskrat Falls GS risk analysis... Transmission line risk analysis report...[and] SOBI risk analysis report"? Why would MHI still believe it was to provide as outcomes for GNL a "Review and assessment of project risks" for the Muskrat Falls GS and the SOBI? And why would Mr. Bown in his April 19 email not mention MHI's misunderstanding or confusion to Mr. Parsons?
- (xvii) On 26 April 2012, VOCM reported [P-01246] that:

Premier Kathy Dunderdale says any debate in the House of Assembly on Muskrat Falls will now likely happen sometime this Fall...Manitoba Hydro will attempt to do what the PUB did not, using the information that the PUB said it lacked...She says MHI's work on Decision Gate Three numbers will not be completed until July or August...

(xviii) On 30 April 2012, Mr. Bown sent Mr. Wilson an email [P-00263] saying:

I have attached a revised Scope of Services that addresses the timing and availability of data necessary for you to complete your review...I am available at your convenience to review and discuss.

Mr. Bown's April 30 email was a direct reply to the April 19 email Mr. Wilson had used to send Revision 6 to Mr. Bown. On April 30, Mr. Bown's attached "mhi scope" document omitted any reference to the word "risk", presumably because Mr. Bown and / or his NR subordinate(s) had removed them from MHI's Revision 6.

(xix) MHI's DG3 review contract [P-00770] was dated 22 May 2012, and signed by MHI on 5 June 2012. The SOW in MHI's DG3 contract contained no explicit reference to risk(s), risk estimate(s), risk analysis, contingency, or to MHI reviewing any of those things.

- (xx) Despite the removal of "appropriateness of reserve margins for costs estimate contingency" from MHI's initial draft SOS for its DG3 review, despite NR's removal of all references to "risk" or "contingency" from MHI's Revision 6 proposal, and despite the SOW in MHI's final DG3 contract not including any explicit reference to MHI reviewing Nalcor's risk(s), risk estimate(s), risk analysis, or contingency, MHI nevertheless analyzed and in its October 2012 DG3 report commented on Nalcor's DG3 tactical risk estimates in the course of discussing the contingency amounts Nalcor had included in its DG3 capital cost estimates.
- (xxi) Commission Co-counsel suggested that because an explicit reference to reviewing Nalcor's risk analysis was removed from, and subsequently not explicitly included in the SOW for MHI's DG3 review contract, MHI was not obliged to do such work. While conceding it was "a fair characterization" to say that MHI's DG3 report contained language suggesting it had reviewed at least some of Westney's DG3 risk analysis, Commission Co-counsel has suggested that MHI did more that its DG3 contract required. An alternate, more probable explanation is that MHI reviewed Nalcor's DG3 tactical risk analysis because MHI in fact understood, for the reasons set out above, that it must do so in order to produce the Reviews and Outcomes listed in the SOW for MHI's DG3 contract. Testimony of MHI's Paul Wilson supported this explanation:

This particular document [P-00821] deals with the management reserve and strategic risk, and we were never provided any documentation by Nalcor at the time on that particular topic. And in addition, the area of strategic risk or risk analysis was essentially removed from our scope of work. [Q: Yeah. But you do agree that when you're doing a – reviewing a cost estimate, that strategic risk has to go in there if the information is available. Is that true?] No, I don't agree...We were engaged to review base cost estimates and contingencies in inputs into the CPW analysis, and management and strategic reserves were an additional (inaudible) to that, not in our scope of work or study, and that was in the agreement with [GNL] in our scope...

Mr. Wilson testified that MHI used the contingency amount of \$368 million, or seven per cent of the base estimate, for tactical risk as an input into MHI's DG3 CPW analysis. [MFI transcript, 29 Oct 2018 (pp. 9-16); P-00763; P-00817; P-00818].

(xxii) To calculate a capital cost estimate, risk(s) must be identified and quantified to arrive at an overall contingency figure to 'plug into' the capital cost equation. MHI always understood it was to review the figures Nalcor was using for contingency at DG3, and that is what MHI actually did. In the course of posing questions to Mr. Thompson, Commission Co-counsel said:

...because that the risk assessment or analysis was removed from the scope of work, that they weren't obliged by their contract to do that work. And then I said that I do concede that, notwithstanding that, there is language in [MHI's] report that would suggest that [they're] saying that they did do that, and I think that's a fair characterization. [MFI transcript, 14 Nov 2018 (p. 80)]

Nalcor's Project Management Team must have had the same understanding as MHI, because Nalcor gave MHI access to its DG3 tactical risk estimates [P-00817; P-00818; P-00768; P-00873 (pp. 78-79, 86, 88)]. Nalcor MF Project Director Paul Harrington would hardly have done so

unless he understood that the SOW for MHI's DG3 review required Nalcor to provide that information in order for MHI to produce the specified outcomes for GNL.

(xxiii) The "outcomes", and the "reviews" from which they were to come, in MHI's final DG3 SOW read:

Review of the Muskrat Falls GS post DG2 design changes, cost estimates, and construction schedules to determine their reasonableness...Outcome: A report of the reasonableness of the Muskrat Falls GS capital cost estimate and schedule...

Review of the HVdc Converter Stations and associated AC switchyards. This will include a review of the...revised cost estimates, construction schedules and DC project definition to determine their reasonableness...Outcome: A report of the reasonableness of the transmission capital cost estimates and schedule...

Review of the Strait of Belle Isle (SOBI) marine crossing cost estimates and construction schedule to assess their reasonableness...Outcome: A report of the reasonableness of Nalcor's SOBI cost estimate [and] schedule...

These descriptions of each MHI "Review" and associated "Outcome" initially appeared in Mr. Bown's 30 April 2012 draft of MHI's SOS, continued unchanged in his 15 May 2012 draft, and remained unaltered in the SOW for MHI's signed DG3 contract. [P-00263 (pp. 4-5); P-00745 (pp. 5-7); P-00770 (pp. 9-10)]

(xxiv) Another 'Review / Outcome' clause potentially relevant to the matter of project cost(s) (and thereby risk(s)) experienced similar treatment. It initially appeared in Mr. Bown's 30 April 2012 draft of MHI's SOS, continued unchanged in his 15 May 2012 draft, and remained unaltered in the SOW for MHI's signed DG3 contract. The wording required MHI to conduct: "A review of the other changes made by Nalcor to cost inputs from DG2 to DG3 for both the Isolated Island and Interconnected Island alternatives", and to produce as an "Outcome: A report on the reasonableness of Nalcor's cost inputs for the other items adjusted since DG2." MHI knew that at DG2 Nalcor had valued strategic risk at \$0. That may explain why MHI chose not to question what it understood to be NR's decision to forego a review by MHI of Nalcor's DG3 strategic risk analysis. [P-00263 (pp. 5-6); P-00745 (p. 7); P-00770 (p. 11)]

108. Throughout April and May 2012, Mr. Bown's lack of knowledge of project capital cost risk estimate analysis interacted with MHI's expertise in and familiarity with that subject matter. Mr. Bown's personal belief that no risk analysis could be done by MHI in the time available apparently caused him to remove any mention of "risk" or "risk analysis" from NR's April 30 draft of MHI's SOS, despite MHI having as late as April 19 included those terms in its Revision 6 SOS. Meanwhile, Mr. Bown's omission of the words "risk" and "risk analysis" from NR's April 30 draft of MHI's SOS apparently confirmed MHI's understanding that GNL wanted MHI to review Nalcor's tactical risk work, but not its strategic risk analysis. In late April 2012, Mr. Bown did not recognize the opportunity for MHI to review Nalcor's DG3 risk analysis that was afforded by Premier Dunderdale's postponement of the HOA debate to Fall 2012. MHI ended up focusing its review of cost estimate risks solely on Nalcor's tactical risk estimates.

Mr. Bown testified that prior to 2018 he saw all risk as generic, and that in 2012 he had not understood that Nalcor and its risk consultant, Westney, bifurcated risk into tactical and strategic categories. Mr. Bown also testified he could not recall ever having discussed strategic risk at DG3 because "we discussed risk as risk; a generic term." [MFI transcript, 5 December 2018 (p. 104)] If on 6 April 2012 Mr. Bown had received explicit direction to remove paragraph 2. (x.1) from MHI's SOS, he would have had to have read that paragraph's explicit reference (and the same one in Revision 2's paragraph 2. (x)) to "Information required: - Strategic Risk Assessment Updated Report, and Westney update if available". Any discussion about removing the wording in those clauses would have necessitated Mr. Bown having at least a modicum of understanding of what a "Strategic Risk Assessment" was. And he has testified he had no such understanding before 2018. What likely actually occurred is that in mid April 2012 MHI removed paragraph 2. (x.1)/2. (x) based on its understanding that while it was not to review Nalcor's strategic risk estimate / strategic risk reserve, it was to review Nalcor's contingency figure(s) using Nalcor's DG3 tactical risk estimates. MHI used those tactical risk estimates to produce reports attesting to the reasonableness of Nalcor's DG3 capital cost estimates for the Muskrat Falls GS, transmission, and SOBI.

Appendix "B"

Paraphrase of La Forest J.'s Observations on Ad Hoc Fiduciary Duty

- 110. Fiduciary duty is one of a species of a generalized duty by which the law seeks to protect vulnerable people in transactions with others. This generalized duty unites such actions as breach of fiduciary duty, undue influence, unconscionability, and negligent misrepresentation. A fiduciary obligation carries with it not only a duty of skill and competence; the special elements of trust and loyalty in a fiduciary relationship give rise to a corresponding duty of loyalty.
- 111. The fiduciary principle monitors the abuse of a loyalty reposed. One becomes a fiduciary where one has an obligation to act for the benefit of another and that obligation carries with it a discretionary power. Several indicia assist in recognizing the existence of a fiduciary relationship: (1) scope for the exercise of some discretion or power; (2) that power or discretion can be exercised unilaterally so as to effect a beneficiary's legal or practical interests; and (3) a peculiar vulnerability by the beneficiary to the exercise of that discretion or power.
- 112. The term fiduciary is properly used in two ways. The first describes certain relationships having as their essence discretion, influence over interests, and an inherent vulnerability. The second, slightly different use exists where fiduciary obligations, though not innate to a given relationship, arise as a matter of fact out of the specific circumstances of that particular relationship. The question to ask is whether, given all the surrounding circumstances, one party could reasonably have expected the other would act in the former's best interests with respect to the subject matter at issue. Discretion, influence, vulnerability and trust are non-exhaustive examples of factors to be considered in making this determination. Outside the established categories, what is required is evidence of a mutual understanding that one party has relinquished its own self-interest and agreed to act solely on behalf of the other. In relation to the advisory context, there must be something more than a simple undertaking by one party to provide information and execute orders for the other for a relationship to be enforced as fiduciary.

- 113. Relationships characterized by a unilateral discretion are a species of a broader family of relationships termed "power-dependency" relationships. The concept accurately describes any situation where one party, by statute, agreement, a particular course of conduct, or by unilateral undertaking, gains a position of overriding power or influence over another.
- 114. In seeking to identify the various civil duties that flow from a particular power-dependency relationship, it is wrong to focus only on the degree to which a power or discretion to harm another is somehow "unilateral". This concept has neither descriptive nor analytical relevance to many fact-based fiduciary relationships. *Ipso facto*, persons in a "power-dependency relationship" are vulnerable to harm; the relative "degree of vulnerability" does not depend on some hypothetical ability to protect one's self from harm, but rather on the nature of the parties' reasonable expectations. A party that expects the other to act in the former's best interests is more vulnerable to an abuse of power than a party which should be expected to know it should take measures to protect itself.
- 115. In the professional advisor context, a person receiving advice should not need to protect him / herself from abuse of power by their independent professional advisor when the very basis of the advisory contract is that the advisor will use their special skills on behalf of the advisee. In contrast to arm's length commercial relationships, which are characterized by self-interest, the essence of professional advisory relationships is precisely trust, confidence, and independence. Concern about the dangers of extending the fiduciary principle in the context of an arm's length commercial relationship is simply not transferable to professional advisory relationships.
- 116. Finding a fiduciary relationship in the independent professional advisory context is not new. Courts have repeatedly held that clients in a professional advisory relationship have a right to expect their professional advisors will act in their best interests, to the exclusion of all other interests, unless the contrary is disclosed.
- 117. Courts have consistently been willing to enforce a fiduciary duty in the investment advice aspect of many kinds of financial service relationships. This can arise even where the ultimate power remains in the client, and without regard to the level of sophistication of the client.
- 118. Policy considerations support fiduciary relationships in the case of financial advisors. These are occupations where advisors to whom a person gives trust has power over vast sums of money, yet the nature of their position is such that specific regulation might frustrate the very function they have to perform. By enforcing a duty of honesty and good faith, courts are able to regulate an activity that is of great value to commerce and society generally.
- 119. Concepts like "trust", independence from outside interests, disregard for self-interest, are all hallmarks of the fiduciary principle. Courts have frequently enforced fiduciary duties in professional advisory relationships. The type of disclosure that routinely occurs in these kinds of relationships results in the advisor acquiring influence equivalent to a discretion or power to affect the client's legal or practical interests. Power and discretion in this context mean only the ability to cause harm. Vulnerability is nothing more than the corollary of the ability to cause harm, viz., the susceptibility to harm. In the advisory context, the independent advisor's ability to cause harm and the client's susceptibility to be harmed arise from the unassailable fact that the

advice given is not likely to be viewed with suspicion; rather, it is likely to be followed.

- 120. Reliance is an important element in a fiduciary duty. In this context it does not mean a wholesale substitution of decision-making power from the investor to the advisor. This approach is too restrictive; it ignores the peculiar potential for overriding influence in the professional advisor. Strong policy reasons favour the law's intervention to foster the fair and proper functioning of the investment market, which cannot really be regulated in other ways. The facts must be closely examined to determine whether the decision is effectively that of the advisor. Here the reliance placed in and assiduously fostered by the advisor meant that the advisor's advice was in substance an exercise of a power and discretion placed in the advisor by the client when the client invested in the projects.
- 121. Breach of a fiduciary duty can take a variety of forms. The duty here breached by the advisor was directly related to the risk that materialized and in fact caused the investor's loss. The advisor was specifically retained to give independent advice about suitable investments, which gave the advisor a kind of influence or discretion over the investor such that the advisor effectively chose the risks to which the investor would be exposed.

Appendix "C"

Comment by Robert Thompson on "Speak No Evil, Write No Evil: Exploring Chain-of-Command Communications and Documentation Practices in the NL Public Service"

Does record keeping within the NL public service appear to be sufficient?

Lack of Definition

- 122. Dr. Kelly Blidook's report [P-04478] does not define the types of records under scrutiny. The context suggests that Dr. Blidook is referring to a narrow group of records related to the evolution of policy ideas or resource allocation decisions (e.g. advice) and records that reveal the roles of key players in making policy or resource allocation. The broader categories of records related to financial transactions, budgets, procurement, regulations, regulatory processes, program management, grants and subsidies, and other areas of administration do not appear to be within the scope of this report. Neither is the preparation of Cabinet submissions and briefing notes, nor the decisions that emanate from Cabinet processes. There are statutory requirements and well-established practices in these areas of documentation. These areas are the traditional and, in many ways, the most substantive categories of documentation that a government must generate. In general, public servants are diligent in these areas of documentation.
- 123. There are few, if any, formal rules that address when or how to create records related to the evolution of policy ideas and the roles of key players, yet a large volume of such records are created and captured in record-keeping systems.
- 124. One may distinguish two sub-categories of such records: (1) research, analysis, briefing notes, slide presentations, and other substantive records used to choose among policy options;

- and (2) basic communication and coordination among and between public servants, often including political leaders.
- 125. The first category of records is generally of such importance in the policy development and resource allocation process that they are retained in formal record-keeping systems and easily producible when requests are made.
- The second category of basic communication and coordination records consists of 126. minutes of meetings, correspondence, emails, texts, and individual notes (e.g., black books), and sometimes briefing notes. These records are created when public officials engage in activities that result in policy and resource allocation decisions, and also in such activities as issues management, public relations, preparing legislation, and managing projects. They are often produced in the service of formal processes that are governed by rules related to documentation. For example, major budget decisions may be the subject of extensive coordination and communication among public servants prior to the budget being tabled in the House of Assembly. The coordination and communication documentation is necessary to achieve the formal goal (the budget decision), but is often regarded by the players as incidental to the formal goal. Those involved recognize that these coordination and communication documents, once created, are typically maintained as government records, but the creation of these records is not mandated according to a set of rules. Consequently, the existence of such records is not consistent across government. Practices may vary among departments, branches, divisions, and even individuals.
- 127. A subset of these incidental records produced for communication and coordination are transitory. In particular, individual notes are often regarded as transitory based on the following OCIO guideline: "Supporting information used in the preparation of a subsequent record: Working papers, notes and research deemed to be inconsequential..." As many public servants regard their own note-taking as little more than a reminder to themselves concerning action(s) to be taken after a meeting, it is to be expected, under current rules, that they are destroyed shortly after their creation.

Context

128. Given the definitions above, the following statement by Dr. Blidook seems to lack proper context:

Recognizing that the information sought within the Inquiry has regularly been unavailable or forgotten, the first question seeks to understand if public servants have a sufficient system of documentation when communicating among themselves and to their superiors.

129. In fact, the types of information sometimes unavailable are a small subset of the overall records of the provincial government. Records related to formal processes with well-established mandates for record keeping have been regularly available. Records related to research, analysis, briefing notes, slide presentations, and other substantive records used to choose among policy options have typically been available. Furthermore, a substantial part of the incidental records used for communication and coordination have been available, especially correspondence and

emails. The records that have sometimes been unavailable are notes on meetings and conversations, including individual notes (e.g. black books).

130. Given the relatively narrow category of records that have sometimes been unavailable, it is unsurprising that the sample of public servants surveyed by Dr. Blidook found that general documentation practices within government were usually sufficient. Record keeping is a valued function in the public service, and is generally performed well.

Lack of Consistency

131. In respect of the narrow category of communication and coordination records noted above, the lack of consistency is fully explained by the absence of rules or formal guidance regarding when such documents must be created. Individuals and teams are permitted to pursue their own preferences as long as work is processed with appropriate efficiency and effectiveness. In the absence of rules or formal guidance, one might expect a culture of documentation, or patterns of practice, to have produced some overall consistency. Based on Mr. Thompson's personal experience between 1982 and 2013, there have been tendencies or patterns within the public service on when to document the discussions of a meeting, advice to a minister, etc., but they have shifted over time.

ATIPPA

- 132. The strengthening under ATIPPA of public access to government records may have caused a reduction in the volume of documents within the communication and coordination category of records. Mr. Thompson considers the comments provided to Dr. Blidook are likely generally correct and representative of the general experience. Ministers and senior officials are sometimes concerned that sensitive information will be released under ATIPPA. While there is much to commend transparency, ATIPPA has injected a tone of caution into the public service culture. It is not surprising that the use of black books or other recording formats has declined, despite widespread acceptability up to 2013. It is rare, and of course unacceptable, for anyone to be asked to destroy government records. Mr. Thompson is personally unaware of this happening.
- 133. If formal rules are created in the future related to the duty to document, they should be accompanied by a recognition among politicians and the public that the need for confidentiality of certain records under ATIPPA actually supports the policy development process.

<u>Impact of Reduced Documentation</u>

134. To the extent that documentation has been reduced in recent years, it may have a negative impact on the quality of advice. While verbal advice should be equally as rigorous, written advice is typically of a higher quality because of the disciplined thought process that goes into organizing and sifting the evidence and arguments for different policy options. Written advice also provides a resource document for reference in meetings and conversations, and it is a record that can be replicated with consistency as an issue moves from the front line to the Cabinet table. Any increased tendency to provide verbal rather than written advice is a negative trend.

135. To the extent that coordination and communication activity is not being documented, the accuracy and clarity of follow up activities may be reduced. For example, the lack of an official record of a meeting may result in important follow up actions not being taken or in such actions being executed in a different manner than the intent established during the meeting. It is unclear whether such impacts have occurred. However, any reduction in these types of records cannot be an improvement. They can only lessen the quality of organizational activity.

Duty to Document

- 136. The duty to document already exists, under a different name, in many pieces of legislation that require records related to financial, regulatory, and other processes, as noted above. New legislation on the duty to document is not needed for these types of records.
- 137. The question, therefore, can be narrowed to whether there should be a duty to document the narrow range of activities related to the communication and coordination activities of public servants and politicians as they engage in policy development and other related matters.
- 138. To address this matter, it is necessary to answer a number of questions. Why have no formal rules been developed locally and generally elsewhere regarding this category of records? Can this category be adequately defined? Can the public service cope with the extra burden of documentation within the already constrained resources and pressures of work life? Is it wise to make a recommendation on this question based on the experience of one public inquiry? What constraints, if any, exist upon public servants communicating different viewpoints to superiors, and why this may be so?
- 1) Why have no formal rules been developed locally and generally elsewhere regarding this category of records?
- These types of records have not been required to ensure fairness in the allocation of public resources or accountability for the proper use of public resources. Other records serve these purposes. The coordination / communication records are generated mainly for internal organizational purposes. In this sense, such records are incidental to the major purposes of government. These records are certainly useful to the public (e.g. when requested under ATIPPA in pursuit of a particular complaint or issue), to historians as raw data, to legal processes as evidence, and to public inquiries to better understand the evolution of a policy issue or major decision, but they are generally not important for the core functioning of government as an organization in real time. When a Premier asks for policy options or advice on an issue, the focus is on the report or the cabinet submission, not the emails, minutes, or notes of meetings that transpire while producing the major documents. The lack of rules or formal guidance allows individuals within the organization to adopt practices that are effective and efficient for the purpose at hand, even if the result is that records of the processes, conversations, meetings, attendance lists, etc., are sometimes never created. Assuming that any failure to create such records is simply an exercise in expediency and not a tactical maneuver to avoid scrutiny, it is a rational response to the everyday time pressures public servants face. The fact that many such records are indeed created in the course of government work is an indication that individuals or teams do create these records when necessary for coordination and communication.

- 2) Can this category be adequately defined?
- 140. In contemplating whether to create a duty to document the category of communication / coordination records, one must determine if this category can be adequately defined in operational terms. Precise meanings would need to be developed for interactions between officials (e.g. face-to-face meetings, conference calls, telephone calls), allocation of responsibility for creating the record (e.g. by all parties to the interaction or by a designated party), the amount of detail in the record (e.g. date, subject, attendees, content, advice rendered, reactions to advice, decisions, follow-up actions), and the circumstances that justify a record being created (e.g. the significance of the subject matter). Consultation and pilot testing would be needed to determine if such definitions and terms could in practice be created and used.
- 3) Can the public service cope with the extra burden of documentation within the already constrained resources and pressures of work life?
- 141. The volume and diversity of this type of activity is such that it will be a considerable burden to create records every time there is an interaction, discussion, or meeting in service of policy development or a major resource allocation decision. The pace of government activity means that adding another burden must be justifiable in terms of value to the organization and the public. Recording a mountain of unnecessary information is not of value to anyone and could be a major expense to government. Coordination and communication activities among officials are so common that defining and streamlining the activity and expectations would be an essential aspect of a duty to document.
- 4) Is it wise to make a recommendation on this question based on the experience of one public inquiry?
- 142. It is noteworthy that many public servants interviewed by Dr. Blidook suggested the MF Project process was unique: "...a common view that arose from speaking to current and former senior-level civil servants is that if significant problems plagued the Muskrat Falls process, those same problems while evident to some are not as problematic or do not appear likely to result in a similar outcome." If indeed the problems with documentation related to the MF Project are unlikely to be replicated in other contexts, creating a duty to document based on the findings of the MFI may be inappropriate. Perhaps it would be more prudent to note that the issue needs further examination in the broader scope of government business.
- 143. Dr. Blidook provides soft support for the duty to document, but suggests it be "carefully constructed after consultation with public servants in order to understand current practices and to address identified shortcomings. The goal should be to identify documentation practices that strike a balance between what is necessary for effective transparency and what may unnecessarily impose additional burdens on available resources." Given that a general duty to document will be very difficult to construct, it is necessary to consider the alternative, which is to build a culture inside the public service (including politicians and political staff) that views documentation as essential for high quality policy development and administration. The norms and behaviours of public servants should be developed through standards, training, and mentorship. There should be no fear of documenting interactions between public officials, and no

one should ask for documents to be destroyed. Exemptions to ATIPPA should be used and supported where they apply, and it should be an honorable trait of all public officials that their records demonstrate diligence and accuracy. Public servants must use discretion in these circumstances so as not to record discussions that are unrelated to the issues at hand, such as partisan matters, which may arise between political leaders in the same meetings where public servants are in attendance. This use of judgment would be developed through the standards, training and mentorship mentioned above.

- 5) What constraints, if any, exist upon public servants communicating different viewpoints to superiors, and why this may be so?
- 144. Dr. Blidook provided examples of officials having trouble "speaking truth to power" and feeling their advice was not valued. He also provided examples of officials who did not experience these problems, and who had a general feeling that the problem was with individuals and was not a pattern within the whole government system. The solutions Dr. Blidook proposed were notions or possibilities rather than concrete reforms. In general, the solutions he proposed address training and setting tone at the top.
- 145. While Dr. Blidook's report addresses chain-of-command communications and documentation practices in the NL public service, there is little, if any, basis for a concern that advice from public servants concerning the MF Project was withheld or ignored by political leaders. There was no evidence that public servants prepared alternative analyses of key project issues that was rejected without consideration or "buried" before making its way to decision makers. Nor was there evidence that public servants held conflicting views from politicians on whether the MF Project decision was good public policy and chose not to make those views known to the politicians.⁵
- 146. In Mr. Thompson's experience, the ability of senior officials to provide advice to ministers and the premier has not varied over the years. Political leaders typically come to power with agendas and commitments made during campaigns. They wish to aggressively pursue these commitments. They ask public servants to draw up plans for their implementation. Advice from public servants will include how to implement these commitments, any difficult issues with these policy goals, and alternatives. This advice often contains realistic assessments of the unforeseen consequences of pursuing a policy goal, including negative impacts on other desired policy goals. This advice is usually welcomed because it helps avoid failure and loss of confidence in the government's ability to implement its agenda.
- 147. There are certainly occasions when the political leaders may distrust senior officials, especially at the start of a new government, because of a perceived closeness of the officials with the previous government. Sometimes public servants will provide advice that appears to deflate a new government's goals. Some public servants may not have the communication and trust-building skills to allow effective rapport with new ministers. Some political leaders may lack effective skills as well. These types of issues are perennial in government and must be managed on a case-by-case basis.
- 148. The most effective and enduring reform would be a better understanding of the

relationship between senior officials and political leaders, by the public, politicians, political staff, and public servants. A better understanding requires public endorsement and widespread acceptance of the principles of fearless advice and faithful implementation. Mr. Thompson has written on this topic in The Democracy Cookbook (Marland and Moore (eds), ISER, 2017:

https://drive.google.com/file/d/12HLbZgTab73SjsGbHgNMsSlGWXynwRXd/view

Endnotes

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MR. RALPH: ...So, I see what you're saying is that Nalcor is the oversight...for the Government of Newfoundland.

MR. S. MARSHALL: Nalcor has to be their principle vehicle of oversight, it has to be. MR. RALPH: So government is not going to be in a position to provide effective oversight of that project.

MR. S. MARSHALL: No, not directly, no. It has – I mean that's why you created Nalcor and that's what Nalcor should be doing. You have checks and balances, you have an independent board and the board – independent board because of the specialized project like Muskrat Falls that they would normally engage specialized advisors to them. [MFI transcript, 2 July 2019 (p. 46)]

² Prior to the MFI, GNL personnel such as Mr. Thompson, Mr. Bown, and Mr. Kennedy generally understood risk and its relationship to contingency and capital cost estimates in the same way as Chris Huskilson and Stan Marshall. The views of Mr. Huskilson (see A below) and Mr. Marshall (see B below) did not accord with Nalcor's approach. Confusion among those (i.e. Mr. Thompson, et al.) who relied on the expertise of Nalcor and MHI is understandable when there is no consensus even among project risk management practitioners concerning project risk quantification and accounting for risk(s) in capital cost estimates (see C, D, and E below).

In summary, evidence provided by utility CEOs Huskilson and Marshall and other witnesses, as well as publications by risk management experts such as John Hollmann and Edward Merrow, strongly suggest there is no general consensus concerning project risk terminology, project risk analysis methodology, or project risk quantification and its inclusion / non-inclusion in capital cost estimates. Nalcor did not share with GNL the actual risk estimate reports that contained probabilistic assessments by consultants about total capital cost and project completion dates. Nor did Nalcor explain to GNL that project cost estimators have a recognized bias toward significantly underestimating contingency and management reserve allowances, and thereby capital cost estimates. Nalcor furthermore chose not to give GNL a substantive explanation of how it calculated "contingency". The result was that GNL (Mr. Thompson, Mr. Bown, Mr. Kennedy, et al.) did not have an accurate understanding as to what was included in the contingency Nalcor used to calculate the MF Project's capital cost estimates.

A. Mr. Huskilson, former Emera CEO, said: "Emera and the UaRB do not use the term "Strategic Risk" in presenting risk associated with project cost estimates for the purposes of project assessment and approval...the costs and risks assessed and included in a project cost estimate are a separate matter from the choice of terminology or language used to describe allowances for risks included in project budgets or estimates. While some project advisors may choose to analyze and reflect project cost risks using "strategic risk" terminology, in Emera's case, its approach to all projects...was, and is, to present a project cost estimate developed on a line by line basis to determine a project budget; including a determination of all risks represented

¹ Nalcor CEO Stan Marshall was questioned extensively concerning GNL oversight of Nalcor and the MF Project. The following excerpt from his testimony succinctly expresses Mr. Marshall's viewpoint.

in the base project estimate and the project contingency within the overall project budget. This is how Emera presents project cost estimates to the UaRB for approval..." [P-01462] Mr. Huskilson added: "...I see it as possibly some confusion that is happening in the dialogue here...the word "cost" and the word "risk" seem to be being interfused interchangeably in this discussion ...in fact, they can't be used interchangeably. That's actually a problem. And so if you're using the word "risk," that only actually results in a cost if it has a sufficient probability, if it hasn't been mitigated...And so the reality of the situation is a risk is not a cost that would necessarily appear in an estimate...What we actually put before the UARB are actually four cost line categories in the entire project cost. This first line is a probabilistic base estimate of the project. The second line is a probabilistic escalation for the project if it's a multi-year project ...The third line is a probabilistic view of the contingency...And then the fourth line is the cost of carrying the project...(do you recall [Nalcor] ever mentioning the term of strategic risk or management reserve or anything like that)...they talked about the term, we said that that's not a term that would be familiar to us or to our regulator...it would not be one that we would use with our regulator...we would be familiar that some consultants use that terminology but it's not a terminology that we use in our business..." [P-01670 (pp. 4-6, 8-9)]

When interviewing Mr. Huskilson, Commission Co-counsel expressed frustration with what he perceived to be a lack of consensus on project risk analysis terminology: "...I – in reviewing all these – the terminologies used by different consultants is all over the place. It's hard to get a handle on it because the words aren't used consistently in the same way." [P-01670 (p. 5)]

- В. Mr. Marshall, former Fortis CEO and current Nalcor CEO, testified: "...some of our real keen engineers were doing [Monte Carlo cost risk analysis], but it never went to the board. I've never taken it to a board in my life until I came to Nalcor. No, these were tools that are built into it. So you're asking for, you know, a risk assessment, you're asking for a sensitivity analysis, and so it gets built into it. And when I go to a board, all this gets put into the judgment and whether – rather than focus on whether it was P49 or P50, you go in and inform them. So we never used the statistical – the strategic risk and tactical risk at all – never used that. What we would do is say, okay, here's our budget for the project. We think there's lots of risk here, we – in our own – because there's a number we give to the project team and typically they were all contract. I probably – in my prior existence, I have, you know, my chief engineer and a few other people who oversee this. They would have a number that we were going to hold them to, but they would know that within the corporation, there's – if you want to call it a reserve. We never talked about a reserve...it's an estimate that we have. We knew that there were certain sensitivities and we're ready for it. And I suppose if you want to use analogy with what you have here, if we had a Fortis parent, they might have – we might have a different number, too, right? But – so we never really used that methodology in terms of going forward with it to the board." [MFI transcript, 28 June 2019 (p. 70)]
- C. More than thirty years ago, project risk management expert Edward Merrow wrote: "The very word "estimate" connotes uncertainty. Estimates of cost can be either too high or too low, but for a variety of reasons, they are usually too low... Contingency allowances are not designed to adjust for the major sources of bias and therefore rarely do so." ["Understanding the Outcomes of Megaprojects: A Quantitative Analysis of Very Large Civilian Projects" (1988), RAND publication [P-03234 (p. 37))].

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- In "The Monte-Carlo Challenge: A Better Approach", 2007 AACE International D. Transactions - RISK.03.1, project risk management expert John Hollmann said: "The definition of contingency and how to estimate it are among the most controversial topics in cost engineering. While there is consensus among cost engineers on what contingency is, there is much less consensus on how to estimate it. This lack of consensus and the unfortunate political nature of contingency issues partly explain why AACE International has never established a recommended practice for how to estimate contingency. In general, Industry can agree that there are four general classes of methods used to estimate contingency. These include the following: Expert judgment; Predetermined guidelines (with varying degrees of judgment and empiricism used); Monte Carlo or other simulation analysis (primarily risk analysis judgment incorporated in a simulation); [a]nd, Parametric Modeling (empirically-based algorithm, usually derived through regression analysis, with varying degrees of judgment used). I know of only one published study of the efficacy of these methods. In 2004, Independent Project Analysis (IPA) presented a paper that for the first time quantitatively explored the historical performance of the various techniques. The IPA authors found that, despite decades of discussion and development, "...contingency estimates are, on average, getting further from the actual contingency required." They further state that, "This result is especially surprising considering that the percentage of projects using more sophisticated approaches to contingency setting has been increasing." In particular when they looked at projects for which the scope was poorly defined, they found that the more sophisticated techniques were "a disaster". The sophisticated techniques they referred to were predominately Monte Carlo analysis of line-item ranges. Given how popular Monte Carlo has become, these are sobering findings that cost engineers must not ignore." [P-00959 (p. 1)]
- E. In "Estimate Accuracy: Dealing with Reality", 2012 AACE International Transactions -RISK.1027.1, John Hollmann said: "Tragically, many cost engineers are facilitating management's collective and sometimes willful biases regarding accuracy by using flawed, unreliable risk analysis methods; those who use empirically valid practices face the fate of Cassandra. The paper is intended as a fundamental reference on the topic of accuracy as well as a call for our profession to use reliable practices and speak the truth to management." Hollmann concluded his paper by saying: "As a student of cost engineering and the editor/lead author of AACE's Total Cost Management Framework process, [I am] dismayed by the extreme disconnect between our practices and the long-known reality...There is an ongoing failure to effectively address the reality of project cost uncertainty and there is a lack of good historical data with causal information. This has led to a credibility crisis. It also raises an ethical question (if not a criminal one per Flyvbjerg); what does it mean if we understand reality but continue to use failed methods known to be contrary to experience to the potential detriment of our employers and clients...In summary, this paper references and summarizes over 50 years of empirical cost estimate accuracy research on large projects...It shows how this reality compares (or does not compare) to what we say and do... It is hoped that the facts, observations and opinions brought together here will serve as a valuable reference on the topic of cost accuracy and uncertainty so that we can better speak the truth among ourselves and with management." [P-03237 (pp. 1, 15-16)]

³ "James Meaney on 27 June 2013 emailed GNL's Paul Morris, Rob McGrath, Todd Stanely et al. to say: "...You will also see I have highlighted different sections of the IE SOW that outline the types of reporting that MWH will provide to Canada, both in Phase 1 (prior to Financial

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Close) and Phase 2 (Construction Period) of it's (*sic*) engagement. As we have indicated, while the IE will be producing these reports for Canada, Nalcor as project owner (and NL as our sole shareholder) will also be able to receive copies."

- ⁴ MHI's "Assessment of Wind for the Isolated Island of Newfoundland" [P-00059; P-00784]; PIRA Energy Group's "PIRA's Forecast Methodology and Assessment of Future Oil Price Trends" prepared for GNL-NR [P-00129]; Ziff Energy Group's "Natural Gas as an Island Power Generation Option" prepared for GNL [P-00060]; NR's "Upper Churchill: Can we wait until 2041?" [P-00061]; NR's "Gull Island: Why not develop Gull Island first?" [P-00062]; NR's "Legal Options: S92A, Good Faith and Regulatory Proceedings in Quebec [P-00063]; NR's "Electricity Demand Forecast: Do We Need the Power?" [P-00070]; NR's "Labrador mining and power: how much and where from?" [P-00071]; Wood MacKenzie's Review of Ziff Energy's "Grand Banks Natural Gas As An Island Electric Generation Option" [P-00091; P-00064]
- ⁵ The evidence revealed instances where written advice or recommendations from public servants was provided to politicians, and then not accepted or implemented. The following four cases illustrate public servants providing "contrarian" viewpoints on minor and major issues.
- A. A 2 May 2008 NR Cabinet paper recommended: "that the Lieutenant-Governor in Council ...cause a proclamation to be issued...to bring the Hydro Corporation Act, 2007 into force." Earl Saunders, Director of Debt Management, wrote: "I don't really have any issues with the recommendation that the Hydro Corporation Act, 2007 be proclaimed...everyone has known for some time now that ultimately Newfoundland and Labrador Hydro will become a subsidiary of the new Energy Corporation. Proclamation of the 2007 Act is necessary to accomplish this. As I read the Submission, the principal reason for proclaiming the Act now is that it will consolidate the financial structure of Energy Corp. and thereby assist in securing credit agreements. It is my understanding that the Energy Corp. has already put in place a credit arrangement with a major bank (up to \$200 million, I believe, and without a Government guarantee) and then there's \$315 million in funding included in the 2008 Budget. It would appear that cash flow shouldn't be an issue in the near term so, while acknowledging that it will eventually be necessary, I don't see that there's a pressing need to proclaim the 2007 Act." [P-00194 (p. 15)]
- B. A May 2011 Finance / NR Decision / Direction Note [P-00807] posed the issue as being: "Whether to approve the selection and retention of a qualified consultant to provide an independent review and report on the detailed project analysis prepared or commissioned by Nalcor, including an assessment of the various risks associated with the Muskrat Falls Hydro Development Project ("MFP") and their potential implications for the Province." While senior Finance and NR officials (and their Ministers) supported "the proposed initiative as it represents both good business practice as well as an enhancement to the existing robust due diligence process", Premier Dunderdale instead chose to send a reference to the PUB.
- C. Finance officials W. Tymchak, M. O'Reilly, and K. Hicks wrote a 19 January 2012 Information Note titled "Economic Opinions on Development of Muskrat Falls", in which they provided a "Review and analysis of opinions of economic experts David Vardy, Jim Feehan and Wade Locke on the development of Muskrat Falls as the least-cost option for Nalcor to address forecasted capacity shortfalls." Their conclusion stated: "The current review process of Muskrat

Falls, and the Lower Churchill potential in general, is too narrow in scope to be informative in any meaningful may. The current review being undertaking by PUB only considers Muskrat Falls versus an isolated island option...The scope of independent review should be expanded to include all possible options to supply Newfoundland and Labrador with the lowest electricity prices to meet future demand, which could include public-private partnerships, provincial-federal partnerships, importing of electricity from Quebec and/or the Maritimes, pricing reform and revenue redistribution, small hydroelectric projects, wind power, natural gas or any combination of the above. By limiting the scope and time for the PUB to conduct its independent review and maintaining Lower Churchill's exemption from the purview of the PUB government is abdicating its responsibility to the people of Newfoundland and Labrador to do everything in their power to provide them with the highest standard of living and greatest degree of economic opportunity at the lowest cost and least risk, which are not equivalent. To ensure government is fully insulated from criticism and, more importantly, is absolved of any responsibility (to the extent that all current information allows) for potentially saddling the people of Newfoundland and Labrador with a massive unnecessary debt burden, government should delay a decision on Muskrat Falls for 1-2 years to allow a full assessment of alternatives and a complete analysis of the potential burden to taxpayers if development of Muskrat Falls has substantial cost overruns. This delay... would be a small price to pay for ensuring all options and voices are fully assessed before reaching a decision on 'the most important public policy issue ever to have faced Newfoundland and Labrador..." Former Finance Minister Tom Marshall testified that after he read the Information Note he asked whether the authors wanted to meet with him to discuss the matter. His ADM indicated they did not wish to do so as they simply wanted Mr. Marshall to be aware of their viewpoint. [P-00922 (p. 5-6); MFI transcript, 6 Nov 2018 (pp. 39-43)]

D. A 27 November 2012 NR / Justice Direction Note titled "Accountability Oversight for the Muskrat Falls Project / Labrador-Island Transmission Link / Labrador Transmission Assets" recommended that: "For the Project Development/Construction Phase, [GNL] utilize the same independent engineer as Nalcor to review Project expenditures and periodically (quarterly due to the level of expenditures) provide a report to Government on the reasonability of costs incurred, with such reports to be subsequently released to the public...[and] For the Project Operations Phase, [GNL] direct the Auditor General to carry out a periodic (annual) review of the Project's expenditures and report on the reasonability of costs incurred." While NR did explore implementing the first recommendation, the second was not pursued. [P-01128]

Supplementary / Reply Written Submission of Robert Thompson to the Commission of Inquiry Respecting the Muskrat Falls Project ("MFI")

I. Rate direction and PUB-exempt project cost recovery predated MF Project

1. P-01875, entered as an exhibit on 12 August 2019, at p. 13 stated:

II. PRELIMINARY MATTERS

1. Government Direction

Pursuant to Section 5.1 of the EPCA the Lieutenant-Governor in Council (LGIC) is empowered to give directions respecting the policies and procedures to be implemented by the Board in determining rate structures for public utilities. This provision details some of the specific issues upon which a direction can be made, including the setting and subsidization of rural rates as well as the setting of a debt-equity ratio and rate of return for NLH. Pursuant to Section 5.2 of the EPCA and Section 4.1 of the Act the LGIC is empowered to exempt a utility from both Acts when it is in the best interests of the Province as a matter of public convenience or general policy.

Government's statutory power to direct, which has been exercised sparingly since its introduction became important in this hearing with the issuance of several directions to the Board in 2003. The following directions/exemptions were entered on the record in this matter as Information #1 (Appendix C):

- A direction to the Board with respect to the rates charged by NLH, including preferential rates, rural rates and rate changes generally;
- A direction to the Board to hold a hearing into the appropriate rate calculation methodology for the Labrador Interconnected System upon receipt of a complaint of discriminatory rates; and
- An exemption of the Wind Power Demonstration Project from the authority of the Board.
- A direction to ensure recovery in the rates of a utility of the costs of projects exempted from the provisions of the Act or the EPCA with the exception of the Lower Churchill Development Project.

The direction to the Board to ensure recovery in rates of the costs of exempted projects allows NLH to recover its costs without the oversight of the Board. With respect to the Application, exemptions authorized through Orders-in-Council in 2000 directed recovery in the rates of the costs associated with the following projects: (i) the Granite Canal Project; and (ii) the two power purchase agreements with Abitibi Consolidated of Canada, as agent for the Exploits River Hydro Partnership, and with Corner Brook Pulp and Paper Limited.

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These directions were made with clear statutory authority and there was no challenge or argument from the parties as to the way in which these directions should be interpreted or reflected. The Board has accepted these directions as circumscribing its jurisdiction. The Board has reflected these directions in this Decision and Order and, where appropriate, has referenced the relevant direction in its analysis.

- 2. The "Information #1 (Appendix C)" referred to in P-01875 can be found on the PUB's website in folders / subfolders: "NLH Documentation" -> "2003 General Rate Review" -> "Documentation" -> "Additional Filings Information Exhibits" -> "Information #1". Information #1 (copy attached hereto as Appendix "A") indicates that during August and September 2003 the Lieutenant Governor in Council issued directives to the PUB under ss. 5.1 and 5.2 of the *Electrical Power Control Act*, 1994 ("EPCA, 1994") and under s. 4.1 of the *Public Utilities Act* ("PUA").
- 3. Therefore, prior to 2011, in addition to exemption orders under s. 5.2, *EPCA*, 1994 and s. 4.1, *PUA* being implemented by enactment of regulations, order-in-council directives were also used to exempt certain matters from PUB oversight, as well as to provide directions under s. 5.1, *EPCA*, 1994. Attached hereto as Appendix "B" are copies of four of the five orders-in-council reproduced in Information #1.
- 4. Order-in-council 2003-406, dated 1 August 2003, directed the PUB to adopt a policy whereby a utility's costs, relative to projects exempted from the *PUA* and the *EPCA*, 1994, be recovered fully in rates unless otherwise directed. Legislatively mandated full cost recovery for PUB-exempt electricity projects (including Granite Canal and the wind power demonstration projects) predated the MF Project.

II. Reply to written submission of Former Nalcor Board Members

5. Paragraph 28 of the written submission of Former Nalcor Board of Directors (2004-2016) stated:

...the Board of Directors wrote directly to Mr. Robert Thompson, Clerk of the Executive Council, on September 2, 2008, requesting that individuals be appointed to the Nalcor Board who had experience in large scale construction, engineering and power generation...

¹ See Reference Re Alberta Statutes - The Bank Taxation Act; The Credit of Alberta Regulation Act; and the Accurate News and Information Act, [1938] SCR 100, 1938 CanLII 1 (SCC), wherein Duff C.J. said: "It is our duty, as judges, to take judicial notice of facts which are known to intelligent persons generally." Mr. Thompson submits that, in 2019, in this context a document publicly available on the website of the quasi-judicial PUB is of the nature of "facts which are known to intelligent persons generally."

That statement is not accurate. In September 2008, Mr. Thompson was neither the Clerk of the Executive Council nor the NR Deputy Minister; in 2008, he received no such letter from Mr. Clift.

- 6. Mr. Clift did send a letter dated 2 September 2008 to Nalcor Energy Board Chair John Ottenheimer expressing the views of Board members concerning: the need to in a timely way address the size of the Board; the need to provide compensation to Board members; and the need to address an absence of Board level expertise in a number of specialized areas. [P-00401]
- 7. Four years later, on 26 September 2012, Mr. Clift sent Mr. Thompson an email, to which was attached a copy of Mr. Clift's 2 September 2008 letter to Mr. Ottenheimer. [P-00401]
- 8. As to the Board's size, composition / skill mix, and compensation, the Written Submissions of Robert Thompson stated:
 - b. Size of the Board
 - 70. The Board should have had more members to spread the workload. As Clerk of the Executive Council, Mr. Thompson took steps that lead to additional members being added to the Board. [P-01623] Increasing the number of members on the Board was the prerogative of the Premier and the Cabinet.
 - c. Composition / Skill Mix of the Board
 - 71. The Board should have contained at least some people with experience relevant to the construction of a hydroelectric and transmission megaproject. The composition of the Board was the prerogative of the Premier and the Cabinet.
 - d. Compensation for the Board
 - 72. Despite efforts to address the Board's inadequate size and expertise deficit, GNL policy was that members of the Board would not be compensated. [P-01116] While this policy was consistent with other NL crown corporations and crown agencies, it may have constrained the skill base of those who could be attracted to the Board. Compensation for the Board was the prerogative of the Premier and the Cabinet.
- 9. Mr. Clift, Ken Marshall, Gerry Shortall testified [MFI transcript, 16 Oct 2018 (pp. 68-72) as follows concerning: Mr. Thompson's response to information Mr. Clift sent him concerning the size, composition / skill mix, and compensation of the Board; and the Board's own ability to directly retain specialized expertise.

MR. COFFEY: Now if we could bring up please P-00401...Mr. Clift, looking at the first ... five paragraphs – of your email to Mr. Thompson. This really was a follow-on to your January 2012 email exchange with him.

MR. CLIFT: Yes...

MR. COFFEY: If we could bring up, please P-00395...the first email in time...is from yourself, Mr. Clift, January 26, 2012, to Robert Thompson, subject is: Board Governance at Nalcor. And you're asking about having a few minutes for a chat about some board governance issues that we have at Nalcor. And then you...outline them...is this the first time since your September 2008 letter to Mr. Ottenheimer, who is, in fact, a member of the board, he wasn't a member of government...is this the first time you've written about this issue to government since then?

MR. CLIFT: I believe so.

MR. COFFEY: In fact, I'm gonna suggest to you this is the first time you've written the government at all about this issue.

MR. CLIFT: Yes.

MR. COFFEY: And...now, back in 2008...Mr. Thompson was not [the] Clerk nor a deputy minister. Well, he became deputy minister late in December of 2008, but in 2012 he was the Clerk. Now, why, Mr. Clift, did you email Mr. Thompson? Why pick him?

MR. CLIFT: I believe it was our understanding at the time that he would be familiar with the progress on various files related to Nalcor.

MR. COFFEY: Oh, yeah, and he had been deputy minister of Natural Resources...for some period, but before that. But, I'm just trying to get a sense of why...on January 26...did you send this email? Were you doing it on behalf of the board?

MR. CLIFT: Yes.

MR. COFFEY: Okay, so...this had been, I take it, informally discussed and you were the, again, the scribe.

MR. CLIFT: And there was a meeting upcoming and we were trying to get a sense for if anything had changed.

MR. COFFEY: ...So, you wrote late on the morning of January 26. On the next day at 4:12 p.m., January 27, 2012, Mr. Thompson responded to you saying: "Tom: Just wanted to acknowledge your email. Let me look into these points and

get back to you soon about starting a dialogue. Robert."...And four days later, January 31, 2012, just after 4 p.m. on the day, you made reference to having seen Mr. Thompson at a luncheon on that day, and made reference to having reminded you that you found some documents that may be of interest to him.

MR. CLIFT: Correct.

MR. COFFEY: Now, you didn't actually send [him] the documents – at that time. That's that September 2008 letter that was sent in September...2012, isn't it?

MR. CLIFT: Yes.

MR. COFFEY: ...So prior to...late January, 2012, had you ever spoken with Mr. Thompson about this issue?

MR. CLIFT: Not that I recall.

MR. COFFEY: ...And as you point out here in the...fourth paragraph..."That would bring us back to the fall of 2007 – some four and one half years ago." And I take it here you were trying to...impress upon Mr. Thompson that this issue had been around for awhile?

MR. CLIFT: Yes.

MR. COFFEY: Unaddressed, from your perspective?

MR. CLIFT: Agreed.

MR. COFFEY: Okay. Now, that's the end of January, 2012. Correct?

MR. CLIFT: Yes.

MR. COFFEY: By June of 2012, members had been added to the board, hadn't they?

MR. CLIFT: Correct.

MR. COFFEY: So in terms of additional personnel, that was addressed?

MR. CLIFT: Yes.

MR. COFFEY: And it was addressed where it, for whatever reason or reasons, had not been addressed in the previous 3 to 4 years?

MR. CLIFT: Yes. And in relative terms, that would have been a relatively quick response.

MR. COFFEY: Oh, yeah, that's what I was going to suggest to you; bearing in mind government.

MR. CLIFT: Yes.

MR. COFFEY: And way it works.

MR. CLIFT: Yup.

MR. COFFEY: It would be relatively swift.

MR. CLIFT: When you consider the challenges and finding for individuals in that relatively short period of time.

MR. COFFEY: Yes.

MR. CLIFT: Yes.

MR. COFFEY: Now, the issue of money or the amount of compensation paid, that is not a – that – well, (inaudible).

MR. CLIFT: Yes, that would not be within the purview –

MR. COFFEY: No.

MR. CLIFT: – of Mr. Thompson.

MR. COFFEY: No, it wouldn't...But my point being here, would you agree that the response in terms of numbers by government after you contacted Mr. Thompson was, from your perspective relatively, prompt?

MR. CLIFT: Yes.

MR. COFFEY: In a government context. And you acknowledge that your understanding was it wasn't within his purview or authority to decide the compensation issue.

MR. CLIFT: Agree.

MR. COFFEY: And as you've pointed out, I believe a number of times, the compensation issue arguably had some relevance to the expert relative expertise one might attract in megaproject or heavy engineering. Correct?

MR. CLIFT: Correct.

MR. COFFEY: In other words, for Mr. Thompson, it was outside his authority -

MR. CLIFT: Absolutely.

MR. COFFEY: – to address either of those aspects of the matter.

MR. CLIFT: Yes.

MR. COFFEY: But he apparently was able to facilitate additional members. Whatever was required, he got it done.

MR. CLIFT: Yes.

MR. COFFEY: Now, in relation to expertise, okay, that might be added to the board –and I think you named someone or some – person or persons with megaproject experience. And with – what else – what other kind of experience?

MR. CLIFT: Large financing.

MR. COFFEY: Large financing.

MR. SHORTALL: Electrical engineering.

MR. COFFEY: Electrical engineering.

MR. CLIFT: Labor relations. International labor relations contracts, those kinds of things.

MR. K. MARSHALL: And legal.

MR. CLIFT: And legal, generally.

MR. COFFEY: Now, as a practical matter, and of course you weren't sitting here, but former premier Williams has told the Inquiry, when he was asked about compensation, he said, I'm gonna paraphrase, it was politically undoable – politically unpalatable or undoable – or words to that effect. It just wasn't on politically. And he explained why. From your perspective as a group, okay – or as individuals – members of a group – would you have understood that that was the case? That it was a problem with the premier – whomever he or she happened to be – singling out the Nalcor board to give them, you know, a substantial amount of money, enough –

MR. K. MARSHALL: Certainly.

MR. COFFEY: – to bring in to attract others.

MR. CLIFT: Yes, and as Mr. Shortall had indicated this morning, we were not expecting the kinds of compensation that one might expect from a private energy corporation or so on.

MR. COFFEY: Oh yeah, and one would understand that.

MR. CLIFT: Absolutely.

MR. COFFEY: But even in the context of a Crown corporation – in order to attract somebody out of – with those kinda – or people with those kind of skill sets you've just described – out of – other than within this province – you would have to pay them presumably a significant amount of money. Unless they happen to be expats who – other than that –

MR. CLIFT: And at one juncture, we had in fact attempted to come up with a list of expats who would've had something close to that experience.

MR. COFFEY: Okay.

MR. CLIFT: And we developed that list and subsequently gave that to the CEO as our revised list. I don't recall the date – would've been after the period that we're questioning here.

MR. COFFEY: Okay, so –

MR. CLIFT: Sometime after –

MR. COFFEY: This is after 2012?

MR. CLIFT: It would've been in 2013 or 2014, I think.

MR. COFFEY: Okay, thank you.

MR. CLIFT: Again, that was – our thinking was evolving, and how else – you know, we had one Gerry, could we find three more with other relevant types of expertise? I believe we talked about a woman from Calgary who had oil and gas experience who had recently retired from one of the major Canadian oil companies, just for one example.

MR. COFFEY: Now, with respect to that – so yourselves, you all recognized there was a problem from your perspective. You know – well, at least there could be a more desirable situation?

MR. K. MARSHALL: Yeah, I wouldn't classify it as a problem. We all stayed. We were –

MR. COFFEY: And that's why I rephrased it.

MR. CLIFT: Yeah.

MR. COFFEY: Okay? That's why I rephrased it. Yeah.

MR. K. MARSHALL: Yeah.

MR. COFFEY: Was there anything to prevent you as a board from going out and hiring that directly yourselves?

MR. CLIFT: I don't recall it was anything we ever considered.

MR. COFFEY: Okay. Fair enough. I just –

MR. CLIFT: And I defer to my colleagues – for their recall.

MR. SHORTALL: Mm-hmm.

MR. COFFEY: Because in effect, by bringing in such board members, you're hiring them in practice.

MR. SHORTALL: Well -

MR. COFFEY: And that wasn't practical.

MR. SHORTALL: It's not quite the same thing. I mean, if you're hiring someone, you give them an assignment to do, and we had lots of that going on – experts, independent experts. But we were looking for someone who's available at board meetings, constantly available, and part of the decision making process and the questioning process and all that. It's not the same as just hiring somebody to do a specific task.

MR. COFFEY: Well, it might be depending on how you fashion it.

MR. SHORTALL: Well -

MR. COFFEY: One could debate that. But my point being – but it didn't come up. Is that –

MR. SHORTALL: No, it did not, no.

III. Reply to written submission of the Consumer Advocate

10. The written Submission of the Consumer Advocate at paragraph 200 stated:

Despite purportedly asking the PUB to provide an independent analysis, the Government also questioned the information the PUB was requesting of Nalcor. Andy Wells ("Wells"), former Chair and CEO of the PUB, testified that during a meeting in the fall of 2011, Thompson told Wells he was not happy with some of the questions the PUB was asking Nalcor [Wells, 25 October 2018, page 67]...

- 11. As to the 14 September 2011 meeting between Mr. Wells, Mr. Thompson, and Premier Dunderdale's Chief of Staff Brian Taylor, the Written Submissions of Robert Thompson stated:
 - By late summer 2011, GNL knew the PUB was disappointed with 57. Nalcor's production of information. GNL was also aware that Nalcor felt the PUB was straying beyond its mandate in terms of some of the Requests for Information ("RFIs") issued to Nalcor. GNL expected a request by the PUB for an extension to its deadline. To gain a better appreciation of the PUB's perspective, Mr. Thompson was asked to meet with the PUB Chair. Meeting with the PUB Chair was not unusual in that GNL personnel had on previous occasions met with the PUB Chair to exchange information on matters that might come before the PUB. The insurance reference to the PUB is one such example, while the water management reference case is another. When asked, the PUB Chair agreed to meet at the Confederation Building on 14 September 2011. [P-01166] During his meeting with Mr. Wells, Mr. Thompson raised two issues – the PUB's assessment of Nalcor's delay in providing information and the reasoning behind some of the RFIs. Mr. Thompson's notes [P-01165] confirm some of the informationgathering points. Regarding the RFIs, PUB Chair Wells told Mr. Thompson the reason(s) for the RFIs were none of GNL's business. Mr. Thompson agreed that was so, as it was not GNL's intention to exert pressure on the PUB.
- 12. Mr. Thompson testified [MFI transcript, 14 Nov 2018 (pp. 57-59)] as follows concerning his 14 September 2011 meeting with Andy Wells and their discussion of Requests for Information ("RFIs"):

MR. THOMPSON: Well, my goal was, as I said, to gather information to better understand the thinking of the PUB as to why – well, there's two things, their perception of the volume of work and the burden and whether that was going to cause a concern for the – for timing. But within that context, the – Nalcor had also been sharing with us a view that some of the questions – I think they called them RFIs – from the PUB may be straying outside the terms of reference. And we didn't have a particular view on that, but we – it was – would be interesting for us to know the PUB's view on that matter, because if that was one of the things the – driving the timeline, it would just be good to know.

MR. LEARMONTH: Yeah.

MR. THOMPSON: So I raised both of these points, as I recall, in the meeting.

MR. LEARMONTH: Well, I suggest to you that the second line of inquiry was categorically, absolutely none of your business or government's business – when this matter was before the PUB. I suggest that to you. What do you say?

MR. THOMPSON: I agree with you in this sense: that we would not have exerted any pressure at all to ask the PUB to conform to a certain line of questioning. I mean, they have the independence to do that and they're well advised and they

can do it. To the extent that I raised it, it was to get a better understanding of how these RFIs linked to the terms of reference, and that enabled me to put in context the whole workflow to others within the government, so we were prepared to look at the issue of the extension.

MR. LEARMONTH: Well, if that – assuming that's true –

MR. THOMPSON: It is.

MR. LEARMONTH: – why wouldn't you contact the board's legal counsel, who would be in charge of the RFIs – not the chair? You would've known that.

MR. THOMPSON: Yes, but I don't recall the consideration that went into that. I don't know if we landed on a direct communication with the chair as a first and only option, or whether we looked at other options. But at any rate, the decision we made was to do a direct contact with the chair. And, of course, he came to the meeting.

MR. LEARMONTH: Yeah, and how long did the meeting last?

MR. THOMPSON: I don't know. Let's say probably about half hour to an hour. I'm not sure.

MR. LEARMONTH: Well, he said it was much shorter than that.

MR. THOMPSON: Oh, it may have been. I don't recall.

MR. LEARMONTH: Yeah, you don't have any notes of the meeting?

MR. THOMPSON: I do...

MR. LEARMONTH: So this discussion was about – you acknowledge that it was about the RFIs and whether the RFIs were relevant to the terms of reference.

MR. THOMPSON: Yeah. And I would have acknowledged in the meeting, I assure you, because I'm, you know, cognizant of the status of the PUB that we had no role in trying to customize or – but we wanted to understand how these RFIs were related to the mandate so we could gain that better understanding within the government.

MR. LEARMONTH: You thought that was your – that was a proper line of questioning at this time?

MR. THOMPSON: It was certainly useful information we thought, yes.

MR. LEARMONTH: No, did you think it was proper to make those inquiries at this time?

MR. THOMPSON: Well, I certainly wouldn't have had the meeting if I didn't think it was proper.

MR. LEARMONTH: Yeah, okay. So you think it was entirely proper?

MR. THOMPSON: Mm-hmm.

MR. LEARMONTH: Okay. Now, so there was a discussion about this and I understand – or Mr. Wells indicated that after he found out what you were talking about, these RFIs, that the meeting ended shortly thereafter with him saying generally that, you know, he was going to leave; he didn't want to talk about that. Is that correct?

MR. THOMPSON: Yeah. I don't recall that. I recall him expressing that it was none of the government's business what questions that the lawyers may ask.

MR. LEARMONTH: Okay.

MR. THOMPSON: And I accepted that.

IV. Reply to written submission of Nalcor

13. At p. 179 of the written Submission by Nalcor, Nalcor stated: "On October 26, 2011 Robert Thompson prepared a draft of a letter to go from Nalcor to the PUB (P-01099)." Mr. Thompson testified that while he did review the text for the letter, he was not certain he drafted it. His testimony read:

MR. LEARMONTH: Okay. Tab 70, which is exhibit P-01099. Now, this is an email, Robert Thompson to Robert Thompson, so is this a memo to yourself, more or less?

MR. THOMPSON: No, it's likely I was either at home sending it to myself at work or vice versa, so I could work on it later.

MR. LEARMONTH: Okay. So once again, why would you be drafting what appears to be a letter from Nalcor to the PUB?

. . .

MR. THOMPSON: So I'm not certain that I was drafting. I may have been, but it may have been sent to me by someone else, and I was forwarding it to myself at home to review it later, perhaps, or something like that, so I'm not certain that I was the drafter of this.

MR. LEARMONTH: Why would you have received it?

MR. THOMPSON: Well, in dealing with the PUB, Nalcor and the government shared information to stay aligned, to make sure we were in – understanding the progress of the hearings and, you know, the kind of submissions that Nalcor was putting forth, and so a response to the PUB from Nalcor about any concerns and the progress of the hearings or the submission of information would have been something that would have been shared for information, possibly for feedback as well.

MR. LEARMONTH: So is this just another example of the integrated team approach?

MR. THOMPSON: Yes, there - certainly collaboration, yes.

[MFI transcript, 14 Nov 2018 (pp. 52-53)]

Dated at St. John's, Newfoundland and Labrador, this 16th day of August, 2019.

Bernard M. Coffey, Q.C Bernard Coffey Law Office The Law Chambers, 1st Floor 263 Duckworth Street St. John's, NL A1C1G9

Counsel for Robert Thompson

Appendix "A"

Page 1 - (Revision 2003-08-14)

Under the authority of section 5.1 of the Electric Power Control Act, 1994, the Lieutenant Governor in Council hereby directs the Board of Commissioners of Public Utilities to:

- 1. i) continue to charge fish plants in diesel-serviced communities and with demand of 30 kilowatts or more the Island interconnected electricity rate;
- 2. ii) continue to charge churches and community halls in diesel-serviced communities the diesel domestic electricity rate and to continue to charge various customer groups in diesel communities, rates calculated on the same basis as existing practice;
- 3. iii) continue the allocation of a monthly block of energy for domestic residential customers in diesel-serviced communities, and that such service be priced at Newfoundland Power's interconnected domestic electricity rate. The monthly lifeline block should be satisfactory to provide for the necessary monthly household requirements, excluding space heating. Subsequent monthly energy blocks for these customers to be charged incrementally higher rates as historically structured and determined. Such rates would increase as per any percentage increase to Island interconnected rates for Newfoundland Power customers;
- 4. iv) proceed, as the Public Utilities Board determines appropriate, with implementation of a demand/energy rate structure for general service (commercial) customers in diesel communities, where such customers currently pay the diesel general service electricity rate. While the rate changes can include elimination of the lifeline block for these general service customers, the new rates should target the current cost recovery level for these customers;
- 5. v) continue to fund the financial deficit resulting from providing electrical service to Newfoundland and Labrador Hydro's rural customers through the electricity rates charged to Newfoundland and Labrador Hydro's other electricity customers, including its Labrador interconnected retail customers and Newfoundland Power, but excluding the industrial customers;
- 6. vi) ensure Newfoundland and Labrador Hydro's communication to its retail customers, regarding rate changes and customers impacts, is carried out in a timely and suitable manner; and
- 7. vii) continue to charge the preferential electricity rates historically charged to provincial government facilities, including schools, health facilities and government agencies, in rural isolated diesel serviced communities and the Burgeo school and library.

Page 2

Under the authority of section 5.1 of the Electric Power Control Act, 1994, the Lieutenant Governor in Council hereby directs the Public Utilities Board to:

1. i) conduct a hearing, on receipt of a complaint of discriminatory rates from one or more

municipalities in Labrador West, into the appropriate rate calculation methodology

for the Labrador Interconnected System;

2. ii) providefullopportunityforLabradorWest(LabradorCity,Wabushand/orIronOre

Company of Canada and Wabash Mines, and the residents and representatives thereof) and other interested parties to present arguments/evidence before such hearing; and,

3. iii) provide a full and formal decision, with detailed reasons, with respect to Labrador Interconnected rates;

with the hearing to be held separately, but before the hearing for Newfoundland and Labrador Hydro's general rate application, or the two may be combined with the proviso that the decision on the Labrador West issue will be incorporated into the final decision on Newfoundland and Labrador Hydro's rate application.

Page 3

Under the authority of section 5.2 of the Electric Power Control Act, 1994, the Lieutenant Governor in Council hereby exempts the Power Purchase Agreement and Newfoundland and Labrador Hydro's activities related to the Wind Power Demonstration Project from the authority of the Board of Commissioners of Public Utilities.

Page 4

Under the authority of section 4.1 of the Public Utilities Act, the Lieutenant Governor in Council hereby exempts the Power Purchase Agreement and Newfoundland and Labrador Hydro's activities related to the Wind Power Demonstration Project from the authority of the Board of Commissioners of Public Utilities.

Page 5

Under the authority of section 5.1 of the Electric Power Control Act, 1994, the Lieutenant Governor in Council is pleased to direct the Board of Commissioners of Public Utilities to:

1. i) adopt a policy that a utility's costs, relative to projects exempted from the Public

Utilities Act and the Electrical Power Control Act, 1994 by Order in Council, shall be recovered fully in appropriate rates, unless otherwise directed on a specific project; and,

2. ii) that costs related to the Lower Churchill Development Project will be excluded from such policy directive.

Information # 1 NL Hydro 2003 GRA

Appendix "B"

Under the authority of section 5.1 of the Electric Power Control Act, 1994, the Lieutenant Governor in Council hereby directs the Board of Commissioners of Public Utilities to:

- i) continue to charge fish plants in diesel-serviced communities and with demand of 30 kilowatts or more the Island interconnected electricity rate;
- ii) continue to charge churches and community halls in diesel-serviced communities the diesel domestic electricity rate and to continue to charge to the various customer groups in diesel communities, rates calculated on the same basis as existing practice;
- iii) continue the allocation of a monthly block of energy for domestic residential customers in diesel-serviced communities, and that such service be priced at Newfoundland Power's interconnected domestic electricity rate. The monthly lifeline block should be satisfactory to provide for the necessary monthly household requirements, excluding space heating. Subsequent monthly energy blocks for these customers to be charged incrementally higher rates as historically structured and determined. Such rates would increase as per any percentage increase to Island interconnected rates for Newfoundland Power customers;
- iv) proceed, as the Public Utilities Board determines appropriate, with implementation of a demand/energy rate structure for general service (commercial) customers in diesel communities, where such customers currently pay the diesel general service electricity rate. While the rate changes can include elimination of the lifeline block for these general service customers, the new rates should target the current cost recovery level for these customers;
- v) continue to fund the financial deficit resulting from providing electrical service to Newfoundland and Labrador Hydro's rural customers through the electricity rates charged to Newfoundland and Labrador Hydro's other electricity customers, including its Labrador

interconnected retail customers and Newfoundland Power, but excluding the industrial customers;

- vi) ensure Newfoundland and Labrador Hydro's communication to its retail customers, regarding rate changes and customer impacts, is carried out in a timely and suitable manner; and,
- vii) continue to charge the preferential electricity rates historically charged to provincial government facilities, including schools, health facilities and government agencies, in rural isolated diesel serviced communities and the Burgeo school and library.

Clerk of the Executive Council

(Forwarded August 14, 2003 - To replace OC2003-347 previously forwarded)



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Under the authority of section 5.2 of the Electrical Power Control Act, 1994, the Lieutenant Governor in Council hereby exempts the Power Purchase Agreement and Newfoundland and Labrador Hydro's activities related to the Wind Power Demonstration Project from the authority of the Board of Commissioners of Public Utilities.

Deputy Clerk of the Executive Council

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Under the authority of section 4.1 of the Public Utilities Act, the Lieutenant Governor in Council hereby exempts the Power Purchase Agreement and Newfoundland and Labrador Hydro's activities related to the Wind Power Demonstration Project from the authority of the Board of Commissioners of Public Utilities.

Deputy Clerk of the Executive Council

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policy directive.

Under the authority of section 5.1 of the Electrical Power Control Act, 1994, the Lieutenant Governor in Council is pleased to direct the Board of Commissioners of Public Utilities to:
i) adopt a policy that a utility's costs, relative to projects exempted from the Public Utilities Act and the Electrical Power Control Act, 1994 by Order in Council, shall be recovered fully in appropriate rates, unless otherwise directed on a specified project; and,
ii) that costs related to the Lower Churchill Development Project will be excluded from such

Clerk of the Executive Council

(Forwarded August 22, 2003 - To replace OC2003-406 previously forwarded)

