

- CA/KPL-Nalcor-111 Consumer Question: Can Nalcor provide an analysis of the impact of any reductions in their forecasted total system load requirement (include Deer Lake) from CB? If load reductions are in the range of decreases of CB load of 10%, 30% and 60% from 2012 to 2017?
- CA/KPL-Nalcor-116 Will Nalcor please prepare a table and graph showing capital and operating cost estimates for each year of the full period of the final analyses (through 2067), as they are incurred, for both the Isolated and the Interconnected Alternatives, all expressed in 2010 dollars. This data will present the total (cumulative) cost as it increases with time, both in present day (2010) and CPW terms. The presentation will be similar to Figure 30 of the November Submission to the Board, except that the vertical axis will be cost as opposed to \$/MWh, and there will be no financial "balancing" through assumed provisions of PPAs or other financing arrangements.
- CA/KPL-Nalcor-125 Consumer Question: Nalcor has used a power purchase agreement with pricing based on the Bruce Power model (to create lower rates in the early years than there would be if a traditional utility cost of service pricing (COS) model had been used) for the Muskrat Falls generating site (using 100 % equity financing). Nalcor has used a traditional utility cost of service (COS) pricing for the TL from Labrador (with 75% debt/25% equity). Based on this Nalcor preferred pricing model Muskrat Falls power is delivered to Soldiers Pond at a cost of 14.3 cents per kWh (or if not 14.3 cents per kWh please provide correct rate in cents per kWh). Please confirm.
- CA/KPL-Nalcor-126 Consumer Question: In the reply to PUB-Nalcor-46 regarding a cost of service (COS) price for Muskrat Falls power in year 1, Nalcor states that an internal rate of return (IRR) of 8.4% was used "On this basis the cost of service in year 1 would be \$214/ MWh".
(a) Is the cost of the TL from Labrador included in the \$214 /MWh?
(b) If so, provide a breakdown of the \$214 /MWh cost between the Muskrat Falls site and the TL.
(c) Provide the in service capital costs (separately for the Muskrat Falls site and for the TL) used to calculate the COS \$214 MWh year 1 price.
(d) Please provide a breakdown on debt/equity ratios/interest rates/return on equity used for the \$214 MWh cost (separately for Muskrat Falls site and TL).
(e) Instead of using the 8.4% IRR, can Nalcor provide the COS Muskrat Falls power price in year 1 (for the Muskrat Falls site plus TL) using the same assumptions as used for TL COS pricing regarding debt/equity ratios same interest rate for debt and the same return on equity)?
- CA/KPL-Nalcor-127 Consumer Question: On a COS basis Nalcor will sell Muskrat Falls power to Hydro at \$214 MWh in year 1. Based on the \$214 /MWh COS price what is the price in \$ per MWh that Hydro will sell Muskrat Falls power to Newfoundland Power in year 1?
- CA/KPL-Nalcor-128 Consumer Question: Nalcor has provided a \$214/ MWh cost for Muskrat Falls in year 1 on a COS basis. Can Nalcor provide the cost in \$ per MWh in year 1 using their preferred pricing model? (Power Purchase Agreement for Muskrat Falls site and COS for the TL)?
- CA/KPL-Nalcor-131 Consumer Question: Nalcor has been used to develop Muskrat Falls, rather than developing Muskrat Falls directly through Hydro (a regulated utility). Using Nalcor as the developer of Muskrat Falls produces a CPW preference of \$2.2 Billion for the Muskrat Falls option. The CPW analysis looks at projects costs only. Nalcor sells power to Hydro under a power purchase agreement (PPA) based on the Bruce Power model (designed to have low power prices in the earlier years). This PPA cost from Nalcor is used as a cost for Hydro in the CPW analysis. At MHI-Nalcor-18, Nalcor states, "The supply of MF energy is through a power purchase agreement and not on a cost of service basis. Exhibit 15 shows the development of the power purchase agreement price to Hydro (which is reflected in the CPW analysis), and the inputs used in exhibit 15 are those for the developer of MF, not Hydro." This CPW preference of \$2.2 Billion would change if Hydro developed Muskrat Falls directly, what is the CPW if Hydro as a regulated utility developed Muskrat Falls directly?

CA/KPL-Nalcor-132

Consumer Question: In its April 1, 2011 letter to the Joint Panel Nalcor make the following statements (on page 4): The 7.7 cents per kWh figure is a levelized unit energy cost (LUEC) for Muskrat Falls generation only calculated the traditional way - the present value of costs divided by the present value of output. A critical feature of this type of analysis is that the output is total plant capability, in the case of Muskrat Falls, this is 4.9 TWh annually.

The 14.3 cents per kWh figure is the equivalent escalating price for the Island market, assuming that the entire cost of the Muskrat Falls generating station and the Labrador-Island Transmission Link is recovered based on projected demand in the Island market. The price per kWh is expressed in real terms and escalates according to CPI

Please cite a definition of the LUEC from electrical industry sources.

- CA/KPL-Nalcor-133 Consumer Question: With reference to CA/KPL-Nalcor-132, the LUEC, as Nalcor defines it, is based on the present value of costs divided by the present value of output. Which costs are included, capital only or all costs, including fuel and maintenance?
- CA/KPL-Nalcor-134 Consumer Question: With reference to CA/KPL-Nalcor-132, how is the present value of output" priced. Value implies price. How is the price calculated?
- CA/KPL-Nalcor-137 Consumer Question: If Emera is taking 1.0 TWh throughout the next 35 years, with no energy charge, then will this factor alone increase the cost to consumers on the Island, who will be paying for 4.9 TWh and will have access to only 3.9 TWh and initially will use only 2.0 TWh?
- CA/KPL-Nalcor-138 Consumer Question: With reference to CA/KPL-Nalcor-132, is the 7.7 cents comparable with the 14.3 cents per kWh, given the use of the term "equivalent" in paragraph 2 of the quote?
- CA/KPL-Nalcor-140 Consumer Question: What is the delivered cost per kWh of energy delivered to the Island in 2017 and what will be the price to the consumer?
- CA/KPL-Nalcor-141 Consumer Question: If energy sales are made to other consumers at a lower price than paid by Island consumers, will this increase the price to other consumers?
- CA/KPL-Nalcor-142 Consumer Question: On page 5 of the April 1, 2011 letter to the Joint Panel Nalcor states that the capital structure for Muskrat Falls generation is 59/41 debt/equity. At <http://www.nalcorenergy.com/assets/infocentre/infosheets/capitalinvestmentprofilefinal.pdf> Nalcor states that "The cost to build the generating facility and transmission link to Churchill Falls will be paid through an equity investment from the Government of Newfoundland and Labrador". In CA/KPL-Nalcor 20 Nalcor states that the capital structure is 100% equity. Please clarify your capital structure assumptions along with assumptions on the cost of equity and debt underlying the 7.7 and 14.3 cent numbers.
- CA/KPL-Nalcor-143 Consumer Question: Further to CA/KPL-Nalcor-142, the costs cited above are wholesale costs. Please add retail costs and allow for inflation in costs on the part of the retail distributor, whether it is Newfoundland Power or Hydro.
- CA/KPL-Nalcor-144 Consumer Question: PUB-Nalcor 46 answers the Question: "If 'cost of service' ('COS') pricing were applied in determining the power purchase price, what would be the power purchase price paid by Hydro to Nalcor for Muskrat Falls power and energy in the first year of supply." The answer given is \$214 per MWh. Is this a blended cost or is it the cost of Muskrat Falls power on its own?
- CA/KPL-Nalcor-145 Consumer Question: If the \$214 is a blended rate what would be the rate for Muskrat Falls power on its own?

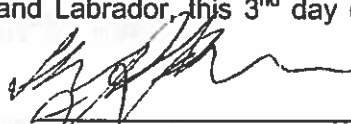
- CA/KPL-Nalcor-146 Consumer Question: What would be the rate, blended and unblended, if the return on equity were 12%?
- CA/KPL-Nalcor-150 Consumer Question: In Exhibit 36 Nalcor cites the Bruce Power lease arrangement as a regulatory precedent to reduce prices in the early years of the Muskrat Falls project and to shift dividend payments to the back end of the time horizon. Has this precedent been deemed to be consistent with generally accepted accounting principles for public utilities?
- CA/KPL-Nalcor-157 Consumer Question: NALCOR has offered that although there has been reduction in the total population of Newfoundland from 1990 - 2005 there has been an increase in domestic customers. This has been attributed (Page 24 - main submission) to the number of people above 25 years old, who are entering the housing market. From the provincial government department of statistics there will be a leveling of this age percentile in the 2016-2020 period. However, this does not seem to be reflected in the predicted customer growth during the remainder of the 2010- PLF. NALCOR is requested to provide commentary on this.
- CA/KPL-Nalcor-158 Consumer Question: Based on the current demand projections to 2067, and the general assumption that there is limited industrial growth, what is the final estimated numbers of domestic customers in 2067. What would be the average persons per household based on domestic customers and total population
- CA/KPL-Nalcor-159 Consumer Question: Considering the unique challenges faced in rural Newfoundland does NALCOR track home abandonment in the demand projections, or is it just purely housing starts which are included within the econometric modeling.
- CA/KPL-Nalcor-160 Consumer Question: The Newfoundland Government Department of Statistics provide an estimate of households on the NE Avalon, following a HIGH, MEDIUM and LOW projection.[Ref;_http://www.economics.gov.nl.ca/pdf2008/Population%20and%20Household%20Projections_2008%20(web).pdf] This has estimated a HIGH estimate of 1000 new homes per year. Considering the economic shift from RURAL to the NE Avalon the household projections used by NALCOR appear to be on the upper bound. NALCOR are asked to describe any differences from that published 3 years ago by the Department of Finance and that used by NALCOR in their projections.
- CA/KPL-Nalcor-161 Consumer Question: Within Exhibit 101 (Navigant Report) there is a reference to a CPW of a "low demand profile". NALCOR are requested to provide how this will impact the cost to the consumer on a kw-hr basis.
- CA/KPL-Nalcor-162 Consumer Question: The EMERA term sheet references the "NS Block of Power" which equates to 980 GWhr which is provided in exchange for construction of the Maritime Link, the enabler of additional power sales. However when considering the Muskrat Falls power purchase profile, assumed in the interconnected island case, there is a potential deficiency in total energy observed around 2035. NALCOR are requested to confirm if the EMERA commitment will provide an energy shortfall in the interconnected option?
- CA/KPL-Nalcor-163 Consumer Question: With respect to the potential power exports in the early stages of the project can it be confirmed that the revenue will be directed to lower rate payer rates. Please provide a Yes or No answer.
(a) If Yes, what is the expected power sales, and how much will the rates decrease because of the Emera partnership.
(b) If No, please explain to the NL rate payer as to why not.
- CA/KPL-Nalcor-164 Consumer Question: Figure 6 of the main submission of November 10, 2011 provides the hourly demand profile used in the CPW analysis. Can this be confirmed that this is a 2010 hourly demand profile?
- CA/KPL-Nalcor-165 Consumer Question: Can NALCOR please confirm if this hourly/monthly profile (exhibit 2) is used throughout the analysis. How is it increased on a go forward basis? Is it just increased by a ratio similar to the estimated growth in annual total energy?
- CA/KPL-Nalcor-166 Consumer Question: Can NALCOR provide commentary regarding how the transition to a customer base increasingly dominated by home heating requirements may affect this hourly demand profile.
- CA/KPL-Nalcor-167 Consumer Question: NALCOR has previously advised through the RFI process that there has been no material negotiations with Hydro Quebec concerning the purchase of power from the Upper Churchill facility. Has NALCOR reviewed the Guaranteed Winter Availability Contract (signed in 1998) as a means to provide the provinces peak energy requirements during the winter months.
- CA/KPL-Nalcor-168 Consumer Question: NALCOR is requested to provide a CPW analysis for the interconnected island option with no Muskrat Falls, with Churchill Falls power available at a rate consistent with a Class L customer within Hydro-Quebec. This is roughly 2.97 cents per kwhr.
- CA/KPL-Nalcor-169 Consumer Question: Considering the 80 MW recall power, the 26 MW Portland Creek Facility and the additional system reliability provided by the LIL when is the anticipated period of peak and total energy deficiency in a delayed MF scenario?

- CA/KPL-Nalcor-170 Consumer Question: NALCOR appear to be utilizing an earned value assessment of combining schedule and costs. Based on the level of work currently completed what is the earned value assessment (Actual Cost of Work Performed, Budgeted Costs of Work Performed, Efficiency etc)
- CA/KPL-Nalcor-171 Consumer Question: How does the PME % compare to other hydro-electric projects of similar size.
- CA/KPL-Nalcor-172 Consumer Question: Considering the EPCM contract has been awarded how to the PME rates compared to those included within the original estimates? What is the impact on the estimates used in the CPW analysis,
- CA/KPL-Nalcor-173 Consumer Question: The EPCM procurement website has indicated that there are a number of major packages which proposals have been received, but award is not completed (presumably pending project sanction). Has there been any noticeable cost growth in the total project estimate since the CPW analysis completed in the November 10th submission has been completed.
- CA/KPL-Nalcor-174 Consumer Question: NALCOR are requested to provide examples of other subsea cable projects where HDD methods have been used on both ends.
- CA/KPL-Nalcor-175 Consumer Question: Has a full analysis of EMERA power requirements been completed in Strategist. What additional capacity requirements are required for the interconnected scenario in the winter months? Has this been completed on an hourly basis over the full period of 2017-2067.
- CA/KPL-Nalcor-176 Consumer Question: With the EMERA cable, and considering the current planned generation, what is the LOLH for the following years 2017, 2024, 2030, 2035.
- CA/KPL-Nalcor-177 Consumer Question: NALCOR requested to provide a monthly profile for MF generation, Island Consumption and potential export sales in the interconnected island option. This shall be for 2035 when there is a deficiency anticipated per the 980 GWhr commitment to Emera.
- CA/KPL-Nalcor-178 Consumer Question: What would be a realistic price for surplus energy considering that it is to be sold primarily in off peak times. The GWAC contract has a very pronounced difference in peak and non-peak rates in the winter (Peak= 22.8 \$/MW-hr versus Non-Peak= 6.7\$ \$/MW-hr). Is this considered representative?
- CA/KPL-Nalcor-179 Consumer Question: Based on market rates in the final selling point, what would be the kw-hr value to the NL rate payer considering the transmission, tariffs and other charges which must be taken off the top.
- CA/KPL-Nalcor-180 Consumer Question: Does the predicted potential energy sales (largely in summer) have a higher CPW than the additional fuel and infrastructure costs required to meet the winter period demands required if the EMERA deal proceeds. Is there a clear commercial advantage to partnering with EMERA based on the current demand projections, or is it purely a form of risk mitigation if the demand profile does not materialize.
- CA/KPL-Nalcor-181 Consumer Question: The total energy demands from 2029-2067 have been extrapolated from the 2010-PLF. In this period the Peak Demand (MW) appears to be a constant ratio to the total energy (GWhr). That is, the Peak Demand in MW is the total energy divided by 5.1. However a review of the historical statistics (1978-2010) show that this ratio is not consistent at 5.1 but varying with a ever decreasing trend. As the economics of both scenarios are dependent upon any additional generation capacity that may be required to service the domestic needs in winter, it is considered very important that this "ratio" be accurate. NALCOR is requested to clarify how the peak capacity (MW) was extrapolated in the period from 2029-2067.
- CA/KPL-Nalcor-182 Consumer Question: Although the information is provided within a number of exhibits and references can NALCOR provide a clear listing of the following parameters in the CPW analysis
Return on Equity
Interest on Debt
IRR on regulated
IRR on unregulated
Discount Rate
- CA/KPL-Nalcor-183 Consumer Question: The discount rate used in the CPW analysis is 8% which is the WACC for the interconnected island. This has been used for the isolated option as well. Is this valid, or should a separate discount rate be used for the isolated alternative, which reflects the thermal generation.
- CA/KPL-Nalcor-184 Consumer Question: What was the discount rate used in historical economic analysis completed by Newfoundland Hydro for thermal plants.
- CA/KPL-Nalcor-185 Consumer Question: Considering the considerable risk associated with the Interconnected option (lower than expected domestic sales) should a hurdle approach, or risk premium approach, be adopted by NALCOR. They have actually taken an opposite view in accepting a lower rate of return for the interconnected island option. It should be noted that such a penalty should not be adopted to isolated option, as in the event of HIGH oil prices a future decision can be made to

**Reference from the Lieutenant-governor in Council
On the Muskrat Falls Project
(the "Muskrat Falls Review")
REQUESTS FOR INFORMATION**

1 CA/KPL-Nalcor-186 Consumer Question: Within the 2011 AGM meeting NALCOR presented
2 a slide of Muskrat Falls Cash Flow. (Reference Slide 32 of
3 <http://www.nalcorenergy.com/assets/agm%202011%20muskrat%20falls%20presentation%20ed%20martin%20june%202011%202.pdf>) This appears to match the MF PPA as used within the CPW
4 analysis, summarised within Exhibit 99. Within the Proposed
5 Purchase Agreement for the Muskrat Falls infeed scenario the
6 returns/profit/dividends are deferred to the end of the project. Although
7 this has been done to lower the initial rate for the NL consumer, it also
8 defers the profit element to the end of the economic review period.
9 Using the discount rate of 8%, this back loading of the equity return, will in
10 fact lower the Cumulative Present Worth. The question for NALCOR is
11 to provide clarity if the proposed model for the MF PPA will have a lower
12 CPW compared to a conventional COS model as normally used by
13 utilities, and as employed within the isolated island alternative. If there is
14 a difference, NALCOR is requested to provide the CPW for the
15 internconnected island for both (i) COS arrangement, and (ii) the model
16 currently proposed. The latter is currently the reference case.
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20 Dated at St. John's in the Province of Newfoundland and Labrador, this 3rd day of February,
21 2012.



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**Reference from the Lieutenant-governor in Council
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REQUESTS FOR INFORMATION**

- 1 CA/KPL-Nalcor-187 Consumer Question: See p 196, volume 2 p196, MHI states, "It is
2 noteworthy that Nalcor has incorporated a large investment programme in
3 the isolated island Option for reducing the environmental footprint of
4 Holyrood. The question arises as to whether or not this is necessary as
5 switching to 0.7 sulphur fuel has accomplished as much as is necessary
6 to meet Provincial environmental targets for SO". The cost of the
7 Holyrood environmental upgrade is approximately \$600m. The impact on
8 the CPW would be to reduce the CPW by \$400m from \$2.2b to \$1.8b if
9 this was not done.
- 10 (a) The in service date is 2015 per table 35. p 196 for the \$600m
11 Holyrood environmental upgrade. Why is the CPW only reduced by
12 \$400m for a \$600m 2015 expenditure?
- 13 (b) If this \$600m is not an environmental or a legislative requirement, why
14 is Nalcor including the \$600m as a cost in the isolated island option?
15
- 16 CA/KPL-Nalcor-188 Consumer Question: See p. 197, vol. 2, MHI states that if the total
17 capital costs for the TL & for the MF site increase by 25% the CPW
18 would be reduced by \$577m. MF generating site has in service cost of
19 \$2.9 (no IDC because of 100% equity financing). What is the impact on
20 the CPW if the MF site has in service capital cost of \$3.5b?
21
- 22 CA/KPL-Nalcor-189 Consumer Question: Re CA/KPL-102 re the new \$209m TL from Bay d'
23 Espoir to relieve capacity restraint that restrict power deliveries to the
24 Avalon. Nalcor states, "As planning for the new line have would had to
25 be initiated a number of years before 2010 in service at which time the
26 new the line was not needed". See MHI report, vol. 2, p. 102, Hatch
27 2008, Volumes 1 to 6HVdc integration study Hatch states that, "Many of
28 the issues observed are not necessarily due to the HVdc infeed but rather
29 due to the lack of transmission linking the generation in the west to the

1 load in the east". Was the TL needed in 2008 as stated in the 2008
2 Hatch report?

3
4 CA/KPL-Nalcor-190 Consumer Question: How much of the existing island generating
5 capacity in the west in MWs can be used to fill this 275 MW capacity line?
6

7 CA/KPL-Nalcor-191 Consumer Question: See MHI report p.99, vol. 2, HVdc Converter
8 Stations and Electrodes at MF there is a 900MW converter station. At
9 Soldiers Pond there is a 810MW converter station. Can Nalcor comment
10 on the 90MW difference? Is this due to TL losses?
11

12 CA/KPL-Nalcor-192 Consumer Question: See MHI P206, HVdc System Losses, MHI states,
13 "Nalcor assumed HVdc systems losses at 5% however there is reason to
14 believe they could be higher than 10% is Nalcor's worst case". Can
15 Nalcor provide an analysis of the impact if the TL loss is 10%?
16

17 (a) on the CPW

18 (b) Can Nalcor provide comment on the impact on the PPA analysis in
19 Nalcor exhibit #36?

20 (c) What will the increase in cents per kwh on the PPA price to Hydro?

21 (d) In reply to PUB-Nalcor 46, Nalcor states that in year 1 on a cost of
22 service basis (COS) MF power cost would be would be \$214/MW.

23 What is COS power cost in year 1 in MWH if the TL losses are 10%?

24 (e) See p101 MHI p 101 " The MF Generating Station is rated @ 824

25 MW (515MW continuous rating and produces an average of
26 approximately 4.91 TWH annually". If the TL losses are 10%, does


27 that mean 4.91 TWH(less 10% TL losses .49twh) = 4.43 TWH is

28 effectively the amount of energy that can be delivered to Soldiers
29 Pond?

30 CA/KPL-Nalcor-193 Consumer Question: See Revisions to Nalcor Submission of November
31 10, 2011, Table 29, p. 126 of 158, revision 1, now referred to as Table 1,
32 Summary of CPW Sensitivity Analysis with Respect to Reference Case
33 And Preference (present value 2010 \$ millions). The reference case
34 shows a CPW preference for the interconnected island of \$2,158 with the

- 1 Federal Loan Guarantee this is \$2,758, an increase of \$600m.
2 (a) Can Nalcor provide a schedule by year out to the end of 2067
3 showing the actual amount saved by year?
4 (b) What interest rate was used prior to the FED guarantee?
5 (c) What is the interest rate with the FED guarantee?
6 (d) What debt / equity ratio was used?
7 (e) What in service capital costs were used for the MF site &for the TL to
8 produce this \$600m saving?
9 (f) Was IDC included on the MF site to get the benefit of the FED
10 Guarantee?
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13 Dated at St. John's in the Province of Newfoundland and Labrador, this 6th day of February,
14 2012.
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**Reference from the Lieutenant-governor in Council
On the Muskrat Falls Project
(the "Muskrat Falls Review")
REQUESTS FOR INFORMATION**

1 CA/KPL-Nalcor-194 Consumer Question: The Muskrat Falls generation unit relies upon the
2 huge water reservoirs above Churchill Falls and upon the regulation of
3 water by CFL(CO) which is governed by the terms of the 1969 power
4 contract with Hydro Quebec. The management of water on the Churchill
5 River is of vital importance, but not totally within the control of the
6 Government of Newfoundland and Labrador, notwithstanding the fact
7 that the facilities in place operate on the basis of water leases issued by
8 the Province. The PUB held a hearing on water management for the
9 Lower Churchill in 2009 and issued a board order. Nalcor Exhibit 17
10 contains the Churchill Falls Management Agreement dated 2009. CE
11 27Rev 1 (Public) states as follows:

12
13 *A water management agreement has been formalized between*
14 *CF(L)Co and the Lower Churchill facilities to ensure that all plants*
15 *produce in concert to maximize energy production from the river.*
16 *All the studies conducted contain some or all of the provisions of*
17 *the agreement. Studies MF1320 and MF1330 explicitly contain*
18 *the requirement to coordinate operations and share the regulating*
19 *benefits of the Upper Churchill storage system between plants*
20 *along the river, thus permitting the benefits of regulation to apply*
21 *to each facility during the calculation of firm energy. The Acres*
22 *1998 study implicitly coordinated production between plants, in*
23 *that all plants were operated to serve all loads; however, the*
24 *benefits of the regulation provided by the Upper Churchill*
25 *reservoirs were not explicitly numerated for the individual facilities.*

26
27 MHI-Nalcor 22 contains the following question and answer:

28
29 *With respect to MF1320, this report indicates firm generation of*

1 515 MWc, not 824 MWc at Muskrat Falls. Why?

2
3 *The 515 MWc rating is the MW-continuous rating and is a means of*
4 *expressing the firm capability based on water availability. The 824 MW*
5 *value refers to the nameplate capacity rating of the plant, comprised of*
6 *four units at 206 MW each. (MF1320, as of the date of this response,*
7 *July 26, 2011, has not been disclosed to the public as it may contain*
8 *commercially sensitive or confidential information. Some or all of this*
9 *report may be released at a later date.)*

10
11 Was Hydro Quebec a party to the water management agreement?

12
13 CA/KPL-Nalcor-195 Consumer Question: Further to the preamble outlined in
14 CA/KPL-Nalcor-194, to what extent does Hydro Quebec have control over
15 the flow of water from Churchill Falls by virtue of the terms of the 1969
16 contract?

17
18 CA/KPL-Nalcor-196 Consumer Question: Further to the preamble outlined in
19 CA/KPL-Nalcor-194, how does the 2009 Churchill Falls Water
20 Management Agreement allow Nalcor Energy to optimize the flow of
21 water for Muskrat Falls?

22
23 CA/KPL-Nalcor-197 Consumer Question: Further to the preamble outlined in
24 CA/KPL-Nalcor-194, what is the matching or congruence of seasonal
25 water flow from Churchill Falls compared with Muskrat Falls and how
26 does the seasonal load pattern of these operations complement each
27 other? Are the peak demands coincident or divergent?

28
29 CA/KPL-Nalcor-198 Consumer Question: Further to the preamble outlined in
30 CA/KPL-Nalcor-194, how will the demands by Emera for Muskrat Falls
31 power be met and how well do they match with those of Hydro Quebec?

32
33 CA/KPL-Nalcor-199 Consumer Question: Further to the preamble outlined in
34 CA/KPL-Nalcor-194, what is the purpose of the transmission line to be

1 built between Muskrat Falls and Churchill Falls?

2
3 CA/KPL-Nalcor-200 Consumer Question: Further to the preamble outlined in
4 CA/KPL-Nalcor-194, will this transmission line require an agreement with
5 CFL(Co) With Hydro Quebec?
6

7 CA/KPL-Nalcor-201 Consumer Question: Further to the preamble outlined in
8 CA/KPL-Nalcor-194, is there an agreement between Nalcor Energy and
9 Hydro Quebec to share power or water?
10

11 CA/KPL-Nalcor-202 Consumer Question: Further to the preamble outlined in
12 CA/KPL-Nalcor-194, can Muskrat Falls generate additional energy
13 beyond the projected 4.5TWh, with improved water management and
14 with the direct engagement of Hydro Quebec?
15

16 CA/KPL-Nalcor-203 Consumer Question: Further to the preamble outlined in
17 CA/KPL-Nalcor-194, what is the danger that Muskrat Falls will not be able
18 to deliver 4.5 TWh of firm energy?
19

20 CA/KPL-Nalcor-204 Consumer Question: Further to the preamble outlined in
21 CA/KPL-Nalcor-194, what other parties might be affected by potential
22 changes in the regulation of Churchill Falls water flow? Would the Iron
23 Ore Company of Canada be affected? Would other participants in Twinco
24 be affected?
25


26 CA/KPL-Nalcor-205 Consumer Question: Further to the preamble outlined in
27 CA/KPL-Nalcor-194, what are the terms of the power agreement with the
28 Iron Ore Company of Canada? How often is their power contracts
29 renegotiated?
30

31 CA/KPL-Nalcor-206 Consumer Question: Further to the preamble outlined in
32 CA/KPL-Nalcor-194, has Nalcor or the Government of Newfoundland and
33 Labrador attempted to engage Hydro Quebec in the optimization of water
34 flow, apart from the 2009 PUB process?

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CA/KPL-Nalcor-207 Consumer Question: Further to the preamble outlined in
CA/KPL-Nalcor-194, would a water management agreement with Hydro
Quebec which removed the restrictions upon water management
contained in the power contract allow the Lower Churchill to generate
additional power and energy? If so, what would be the effect on the
rated capacity of Muskrat Falls and Gull Island?

Dated at St. John's in the Province of Newfoundland and Labrador, this 6th day of February,
2012.



for ✓
Thomas Johnson
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**Reference from the Lieutenant-governor in Council
On the Muskrat Falls Project
(the "Muskrat Falls Review")
REQUESTS FOR INFORMATION**

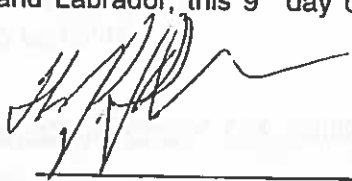
- 1 CA/KPL-Nalcor-208 Consumer Question: Regarding Nalcor's 8% discount rate, is this a
2 nominal or real (i.e., net of inflation) rate?
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- 4 CA/KPL-Nalcor-209 Consumer Question: In calculating CPW, did Nalcor use a nominal
5 discount rate applied to nominal costs or did it use a real discount rate
6 applied to real costs?
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- 8 CA/KPL-Nalcor-210 Consumer Question: Regarding the 170MW CCCTs, how would such a
9 unit currently compare to Holyrood in terms of:
10 (a) fuel cost per MW hour of generation;
11 (b) SO₂ emissions per MW hour;
12 (c) NO_x emissions per MW hour; and
13 (d) particulate emissions per MW hour, assuming both were operating at
14 their efficient rates?
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- 16 CA/KPL-Nalcor-211 Consumer Question: For the 170 MW CCCT scheduled for 2022 under
17 the Isolated Island Option, where would it be located and how long would
18 it take to construct?
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- 20 CA/KPL-Nalcor-212 Consumer Question: Various breakdowns of the CPWs for the two
21 options have been provided. Please provide a breakdown by time
22 periods:
23 (i) CPW up to and including 2045, and
24 (ii) CPW for 2046 to 2067 inclusive, for both.
25
- 26 CA/KPL-Nalcor-213 Consumer Question: Regarding the low NO_x burners in the Isolated
27 Island Option, is their installation and operation dependent on the ESP
28 and Scrubbers, or can they be installed first or solely without any impact
29 on their effectiveness?

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CA/KPL-Nalcor-214 Consumer Question: Regarding the retirement of the Corner Brook Pulp and Paper co-generation PPA in 2022, can that PPA be renewed or will the capacity be permanently lost at that time?

CA/KPL-Nalcor-215 Consumer Question: What is the sulphur content of fuel currently being used at Holyrood and is a lower sulphur fuel available? If a lower sulphur fuel is available, what is the current price difference between the two?

Dated at St. John's in the Province of Newfoundland and Labrador, this 9th day of February, 2012.



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