

## **Nalcor Energy 2014 Annual General Meeting Questions & Answers**

**The following questions were submitted prior to Nalcor Energy's 2014 Annual General Meeting (AGM).** Many of these questions were asked and answered at Nalcor's Annual General Meeting on June 4, 2014. In addition, questions that were submitted online during the AGM that were not addressed are also at the end of this document.

The entire AGM is now available online at: <http://www.nalcorenergy.com/agm-2014.asp> including the full question and answer session.

### **Q1: What specific future and current assets has Nalcor pledged for Muskrat Falls loans? Newfoundland and Labrador Hydro, Oil & Gas, CFLco/Bull Arm?**

A1: As a part of the Muskrat Falls/Labrador Transmission Assets (LTA) and Labrador-Island Transmission Link (LIL) financings, Nalcor Energy has pledged as security its shares in the following wholly owned subsidiaries involved in the development, financing and operation of the Muskrat Falls Project:

1. Labrador- Island Link Operating Corporation
2. Labrador-Island Link General Partner Corporation
3. Muskrat Falls Corporation
4. Labrador Transmission Corporation

Assets of other non-LCP related Nalcor lines of business / subsidiaries have not been pledged as security for the MF/LTA and LIL financings.

### **Q2: The audit report on page 49 of the 2013 annual report is dated April 03 2014. Why wasn't it released at that time?**

A2: The date of April 3 refers to the date when the external auditors were prepared to sign-off on Nalcor Energy's 2013 financial statements. This date represents only the date on which the financial statements were complete and not the remaining sections of the Business and Financial Report. Nalcor files this document annually by April 30<sup>th</sup> in accordance with the Energy Corporation Act.

**Q3: Who owns the Maritime Link? Nalcor stated: "The Maritime Link will be 100% owned and financed by Emera "and also "Nalcor has determined that it controls the Maritime link for financial reporting purposes and as such has recorded the costs." Can both be ok? Is Emera also recording the cost of the Maritime Link?**

A3: Emera owns the Maritime Link from a legal perspective. Ownership refers in this instance to the legal title of the assets while control is an accounting concept. Determining control from an accounting perspective requires an assessment of various criteria including the ability to direct relevant activities associated with an asset and exposure to the related risks and rewards.

Additional information on how the costs of the Maritime Link are recorded by Emera should be directed to Emera Inc. directly at [www.emera.com](http://www.emera.com).

**Q4: Note 8 on page 67 of the 2013 annual report states that cash from Muskrat Falls loan invested at 1.59% to 1.62%. The Muskrat Falls loan has 3.8% blended interest. 3.8% less 1.62% = 2.18% interest loss per year until all funds used in 2017 or later?**

A4: In order to avail of the benefits of the Federal Loan Guarantee and historically low interest rates, \$5 billion in long-term bonds were issued for the Muskrat Falls (MF), Labrador Transmission Assets (LTA) and Labrador-Island Transmission Link (LIL) projects in December 2013 at a weighted average interest rate of approximately 3.8%. As a result of this financing structure, the interest cost on this debt is locked in for the next 35 years for MF/LTA and 40 years for LIL, and will provide savings to rate payers of over \$1 billion over the life of the project on a discounted basis. To offset the interest cost on the \$5 billion in proceeds that will be drawn down through the construction period, the funds were invested in structured deposit products yielding interest income between 1.59% and 1.62%. Given the funding profile and liquidity requirements associated with construction of the Project, this was determined by Nalcor and its lead arranger on the financing, TD Securities, to be the most effective investment strategy.

**Q5: Note 10.2 on Long term debt Muskrat Falls tranche a \$650M has a 2029 year of maturity. 2013 -2029 a short 16 year loan for the MF plant. Why so short loan for a long life asset? Does the short loan period 16 years require higher customer power rates?**

A5: In December 2013, \$5 billion in AAA rated, Government of Canada guaranteed long-term bonds were issued for the Muskrat Falls (MF), Labrador Transmission Assets (LTA) and Labrador-Island Transmission Link (LIL). A series of 6 bonds (3 for MF/LTA and 3 for LIL) with

differing maturity dates were issued to achieve the loan guarantee term and amortizing profile required under the terms and conditions of the November 2012 Federal Loan Guarantee Agreement. As a result of this financing structure, the interest cost on this \$5 billion in debt is locked in for the next 35 years for MF/LTA and 40 years for LIL, and will provide savings to rate payers of over \$1 billion over the life of the project on a discounted basis.

**Q6: Why was there an immediate loss of \$14.1 million in Dec 2013 on the interest rate hedge? The Muskrat Falls loan was made in Dec 2013. What is the hedge loss up to May 20, 2014?**

**A6:** In order to avail of the benefits of the Federal Loan Guarantee and historically low interest rates, \$5 billion in AAA rated long-term bonds were issued for the Muskrat Falls (MF), Labrador Transmission Assets (LTA) and Labrador-Island Transmission Link (LIL) projects in December 2013. As a result of this financing structure, the interest cost on this debt is locked in for the next 35 years for MF/LTA and 40 years for LIL, and will provide savings to rate payers of over \$1 billion over the life of the project on a discounted basis. Prior to the pricing of these bonds on December 10, Nalcor's Muskrat Falls subsidiary entered into a series of bond forward rate agreements with a notional value of \$2 billion to mitigate volatility in interest rates on the impending long-term debt issuance. These hedge contracts were settled for \$14.1 million on the pricing date.

**Q7: What is the current status of HQ court case?**

**A7:** This question has been previously answered. The answer is available at the following link and is listed in A1 under March 2014: <http://muskratfalls.nalcorenergy.com/wp-content/uploads/2014/05/Water-Management.pdf>

**Q8: When will Nalcor release an updated cost estimate for the Muskrat Falls project?**

**A8:** Nalcor Energy released information on the capital cost update on June 26, 2014. The presentation and background information on the \$6.99 billion capital cost for the Muskrat Falls Project is available online at: <http://muskratfalls.nalcorenergy.com/newsroom/news-releases/>

**Q9: What role will be played by the transmission line between Churchill Falls and Muskrat Falls? What factors influenced the transmission capacity of this line?**

A9: The transmission line is required to enable water management between Churchill Falls and Muskrat Falls in compliance with the Electrical Power Control Act by facilitating energy transfer between the two generating facilities.

The factors that directly influence the transmission capacity of the line are the operating voltage (315 kV), conductor arrangement (2 bundle 795 MCM Drake conductor), and line configuration (two circuits). These were selected in order to ensure stable post-contingency operation after all fault conditions were analyzed.

**Q10: When will the power purchase agreement signed in November 2013 be released publicly?**

A10: The Power Purchase Agreement document was publically released with the updated capital cost for the Muskrat Falls Project on June 26, 2014. This document is available online at: [http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/Power-Purchase-Agreement\\_29Nov2013.pdf](http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/Power-Purchase-Agreement_29Nov2013.pdf)

**Q11: Will this agreement [Power Purchase Agreement] be subject to regulatory oversight by the PUB? If not, why not?**

A11: This question was answered by Ed Martin at the AGM. Here's a summary of his response given at the AGM.

In the legislation related to Muskrat Falls passed by the Government of Newfoundland and Labrador in late 2012, Hydro was assured that costs incurred in the development of Muskrat Falls and the Labrador-Island Transmission Link projects would be recovered from Hydro ratepayers. This was done to ensure the financeability for the project. This legislation was a key component to securing the Federal Loan Guarantee and project financing.

**Q12: In a television interview during the Christmas period Nalcor CEO Mr. Edward Martin said that water management on the Churchill River would not be a problem for optimizing output at Muskrat Falls. He said that if the seasonal pattern of demands made by Hydro Quebec, under the original 1969 contract, continues into the future, then Muskrat Falls will achieve its full potential of producing 824 MW and 4.9 TWh, based on average hydrology. He said the language of the renewal contract for the last 25 years of the Churchill Falls contract, with respect to the demands which Hydro Quebec can make upon CFL (Co), is more advantageous, compared with the original 1969 contract and inspires confidence in Nalcor's water management arrangements for Muskrat Falls.**

**Please advise how the renewal contract is more advantageous and how it provides assurance that there is no risk arising from the exercise of Hydro Quebec's rights under the power contract, notwithstanding section 1.2 of the 1969 contract which provides that the contract will be "governed by, and interpreted in accordance with, the laws of the Province of Quebec" and notwithstanding section 5.7 of the Electrical Power Control Act, which protects such rights.**

A12: An answer to this same question was provided by Nalcor Energy on March 14, 2014 and is available online at: <http://muskratfalls.nalcorenergy.com/wp-content/uploads/2014/05/Water-Management.pdf>.

Here is the answer that was provided: The Motion filed in Quebec Superior Court by Hydro-Quebec in July of 2013 relates to the interpretation of the 1969 Power Contract and the renewed Power Contract which will take effect in 2016. As the case is before the Court and out of respect for the Court process, Nalcor is not able to comment on this case at this time.

**Q13: The recent power blackouts have accentuated the importance of maintaining an emergency power supply on the Avalon Peninsula. Have these events led to reconsideration of the role of the Holyrood plant after interconnection and the investments needed to maintain it in a state of readiness?**

A13: Newfoundland and Labrador Hydro (Hydro) has been clear with its plans to decommission the Holyrood plant in 2021. Hydro plans to keep the plant available for service in the early years following full commissioning of the Muskrat Falls hydroelectric generating facility and the Labrador-Island Transmission Link.

The addition of the Maritime Link between the island of Newfoundland and Nova Scotia provides other benefits as well, including further enhancing the reliability of our provincial electricity system. Following in-service, we will have the ability to import power from other

markets if we require energy in an emergency. The Interconnection Operators Agreement established between Hydro and Nova Scotia Power includes provisions for emergency assistance and emergency energy transactions. These arrangements are common practice between neighbouring utilities. This agreement can be viewed in full on our website, at [www.muskratfalls.nalcorenergy.com/newsroom/reports](http://www.muskratfalls.nalcorenergy.com/newsroom/reports)

In addition the 100MW (nominal) combustion turbine being constructed at Holyrood will provide ongoing secure capacity in eastern Newfoundland for HVdc transmission line contingencies. Also the proposed transmission line between Bay d'Espoir and Western Avalon required for system reliability purposes enables additional power transfer to the Avalon Peninsula in the event of HVdc transmission line contingencies.

**Q14: Will the Holyrood plant be required as a backup when Muskrat Falls is commissioned, to ensure reliability of the system, particularly for Eastern Newfoundland? Has Nalcor given sufficient weight to the question of reliability and sufficiently compensated for the risks associated with a long distance transmission line from Muskrat Falls to the Avalon Peninsula, given the adverse maritime climate, the sub-sea crossing under the iceberg-scoured Strait of Belle Isle and the high wind and icing conditions prevalent in Alpine conditions on high ground in southern Labrador, on top of the Long Range Mountains and across the Isthmus of Avalon?**

A14: Please refer to the answer provided to question #15.

**Q15: Does NLH still plan to decommission the Holyrood thermal plant as a generating facility after 2021? Is this prudent? Will the facility need to be kept in readiness for events which isolate the Avalon Peninsula from the rest of the system, after interconnection with Labrador, and when power cannot be supplied over the Maritime Link?**

A15: Please refer to the answer provided to question #15.

**Q16: On January 29, 2014 I asked whether SNC Lavalin or its subsidiaries play any role in the Strait of Belle Isle cable installation and burial. The response from Nalcor dated March 14, 2014 did not deal with the question of subsidiaries of SNC Lavalin. Please respond to full question: do the subsidiaries of SNC Lavalin play any role in the Strait of Belle Isle project?**

A16: The Strait of Belle Isle marine cable crossing is not part of the EPCM contract with SNC-Lavalin. This is a Nalcor responsibility using consultants and contractors who specialize in subsea cables, horizontal directional drilling and marine environments. For further clarity, no subsidiary of SNC Lavalin plays a role in the cable installation and laying of the cable across the Strait of Belle Isle.

At the 2014 AGM, a different question regarding the role of subsidiaries of SNC-Lavalin was asked – “Does SNC Lavalin or its subsidiaries play any role in work relating to the Strait of Belle Isle?” While the role of Spectrol Group, a SNC-Lavalin subsidiary, is unrelated to cable installation and burial, they do provide third-party inspection services for equipment to be installed as part of the Strait of Belle Isle marine cable crossing project.

**Q17: With regard to the Liberty Consulting Group Interim Report to the PUB, Nalcor CEO Martin said the report “does not provide any evidence that an act or omission of by Hydro caused the power problems.” (The Telegram, April 26, 2014). In the same article he also said that when he assumed his present role over seven years ago: "The age of the assets and the asset management processes and the work that was being poured into them for their age was not enough, not acceptable." Is Mr. Martin saying that, during his watch, the situation has improved? Our reading of the Liberty Consulting group report does not support his assertion that no act or omission of Hydro caused the power outages and rolling blackouts in January. And it demonstrates that his stewardship of our Hydro assets is not what we have a right to expect from the President and CEO of Newfoundland and Labrador Hydro. It also brings into question the capacity of the management team properly to manage the Muskrat Falls project. How can Nalcor maintain that the situation has improved?**

A17: Following the service disruptions in early January, Hydro initiated a voluntary internal review to identify any contributing actions, conditions or factors and to begin immediate and long-term action to prevent similar challenges in the future. The process was a robust and complete examination of the events leading up to and during the January service disruptions. Many of the actions identified by Hydro align with those outlined by the Liberty Consulting Group (Liberty). The events were caused by a series of highly unlikely and separate events, which have a very low probability of ever happening in this sequence again. The primary issue leading to the rotating customer outages on January 2 and 3 was the unplanned unavailability

of generation at five separate stations while customer demand was at its highest ever. Much of the unplanned generation outages were unpredictable and were unrelated to maintenance issues. They did however reflect the higher failure potential of older equipment such as the FD fan motor and valve spindles at Holyrood which affected 125 MW of the 233 MW of unavailable capacity on January 2.

In addition, during a severe winter storm on January 4 a transformer bushing failed when at the same time one of 5 circuit breakers, required to operate to clear the resulting electrical fault, failed to open. This resulted in a serious fire at the Sunnyside Terminal Station. Hydro's close examination of the failures to determine the root cause using an industry best practice technique, introduced in the past few years as part of Hydro's improved asset management practices, as well as Liberty's review of this examination, did not pinpoint one clear cause but did identify areas for improvement. One of these was to catch up on deferred maintenance. The root cause examination could not link the breaker failure to the deferred maintenance on the breaker because the breaker operated correctly without intervention following the event and had been exercised, performing properly, earlier in 2013. Liberty was unaware of this latter point when it prepared its report. Regardless of this, Hydro is actively working at catching up on deferred maintenance on its breakers and transformers. It is also accelerating its replacement of its older air blast circuit breakers. In addition to these, Hydro is actively prioritizing and completing all necessary actions to ensure a reliable electricity system. Hydro is working closely with the PUB and reporting, as requested, on the detail, scheduled and implementation of actions.

Many of the problems incurred can generally be characterized as due to aging assets, which is a challenge facing many utilities. Hydro is actively addressing this through its asset renewal plans and asset management strategy.

Hydro has made improvements over the past 6-7 years to replace and refurbish its aging assets. Prior to that time, not enough investment was made in maintenance and capital upgrades. In 2009-2010 the company developed a comprehensive approach to asset management and started to ramp up our capital investment to ensure sustained value to the people of the province. Hydro's capital expenditures have more than doubled since 2006 and in 2014, Hydro is forecasting to spend more than \$260M in capital upgrades and investment in the provincial electricity system – this is all with the goal of continually strengthening the system for the people of this province.

This level of investment is expected to continue as we move towards the commissioning of Muskrat Falls. The decision to move forward with Muskrat Falls will ensure the province has the power and energy it needs for the coming decades. Our focus now is on ensuring reliability for the people of Newfoundland and Labrador in the short term between now and 2018.

Hydro operates a robust, reliable electricity system and is on par with other jurisdictions. Hydro operates in an isolated system and always works diligently to ensure the appropriate balance between cost and reliability for customers. Hydro teams are committed and dedicated to ensuring a reliable electricity system for the people of this province.

**Q18: How will cost overruns on the generation site, the Labrador Island Link and Labrador transmission assets influence the financial participation of Emera and its subsidiaries? What risk will they bear from cost escalation?**

A18: Emera does not have an ownership interest in either Muskrat Falls or the Labrador Transmission Assets. With respect to the Labrador-Island Transmission Link, their participation is addressed in the NLDA and LIL LPA executed between Nalcor and Emera in July 2012.

**Q19: Did the federal government insist on the regressive amendments to the Electrical Power Control Act that exacerbated the monopoly power of Nalcor, as a condition for the federal loan guarantee?**

A19: Certainty is required with respect to cost recovery and cash flow in order to achieve project financing, whether financing is guaranteed by the Government of Canada or provided directly by a lender. Nalcor has been clear on this fact from the onset of the discussion on Muskrat Falls. Without ensuring clarity that funds would be recovered, financing would not be achieved on the terms provided. Through Nalcor and Newfoundland and Labrador demonstrating that this framework would be put in place, Canada agreed to provide the Federal Loan Guarantee which further enhanced the financing terms and will result in a benefit to electricity consumers in the province in excess of \$1 billion.

**Q20: Did the federal government also insist that demand side management and conservation be attenuated in order to strengthen the demand for electricity and guarantee repayment of the guaranteed loan?**

A20: No demands or conditions on the role of demand side management or conservation programs have been imposed. While historically, the benefit of a conservation program has been linked to fuel displacement at Holyrood, going forward the business case would be assessed based on the value conserved energy that could be sold into export markets. While the actual numbers used in analysis of a specific initiative would change, the principles used to assess the merits of that initiative would not.

**Q21: The Energy Corporation Act confers extraordinary powers on Nalcor in order to allow it to operate in a free enterprise milieu and to behave as if it were a publicly traded commercial enterprise, operating in a competitive environment and guarding its trade secrets from its competitors. If Nalcor wishes to behave as a private corporation, notwithstanding its public ownership, one would expect it to follow the disclosure rules which apply to publicly traded companies. Is Nalcor following the rules of disclosure established by the Toronto Stock Exchange for publicly traded companies and releasing material changes to the overall project cost, rather than awaiting the completion of the full tendering process?**

A21: A key reason for the Toronto Stock Exchange disclosure rules is to ensure that all investors in listed securities have equal access to information so that market decisions, that is, whether to purchase or sell listed securities, can be made on an informed and fair basis. To the extent that Nalcor shares or those of its subsidiaries are neither listed nor traded, this consideration is not a factor in timing announcements that could be considered material for a listed company. Transparency and accuracy of information, however, are important factors, and as committed, Nalcor provided capital cost information publicly when it was no longer commercially sensitive, thus protecting the interests of the people of Newfoundland and Labrador.

**Q22: The Muskrat Falls analysis was based on the full output of Muskrat Falls and remaining recall from Churchill Falls being available to NL ratepayers, with the completion of the Labrador Island Link. The analysis completed by Nalcor, and submitted to the PUB did not include the 167 MW which must be delivered to Nova Scotia during peak demand in Newfoundland in the winter or the requirement in the Energy Access Agreement to supply additional energy in the amount of a minimum yearly average of 1.2 TWh of “market” energy. Nor did it include any sales of additional energy or capacity to Labrador Mining. Will Nalcor be undertaking a revised Strategist run for the 50 year Muskrat Falls analysis period, with these additional obligations included? Any increase in peak load due to increasing penetration of space heating will only serve to exacerbate any shortfalls in winter, due to these additional obligations.**

A22: Yes, Nalcor will complete the next generation expansion study with Strategist, Newfoundland and Labrador Hydro will update the model with the relevant additions since Decision Gate 3, in the areas of forecasted loads, electricity supply and electricity contracts. This study is scheduled to be carried out later in 2014.

**Q23: Our commitments to Emera take three parts: “Nova Scotia block” of 980 GWh for 35 years, 240 GWh annually for five years of “supplemental energy” and between 1,200 GWh and 1,800 GWh of “market energy” for 24 years. There are penalties for both sides if sales are less than 1,200 GWh. So the three part deal leaves Nalcor with little flexibility even though these arrangements are characterized as essentially a “right of first refusal” to buy MF power in the spot market. There is little “unassigned production”. Does Nalcor see any opportunity for the sale of firm Muskrat Falls power outside the Province at a rate which would recover full cost?**

A23: The statements that “the three part deal leaves Nalcor with little flexibility” and that there is “little “unassigned production” are not correct and are misleading. Nalcor forecasts significant amounts of surplus energy, especially in the earlier years following Muskrat Falls in-service. Further, the Energy Access Agreement (EAA) gives Nalcor great flexibility in identifying the timing of potential energy deliveries and their associated prices, and Nova Scotia Power Inc. (NSPI) will only have the opportunity to purchase Newfoundland and Labrador’s surplus energy if it is willing to match or exceed Nalcor’s alternative markets.

The Muskrat Falls Project is being developed first and foremost for the benefit of Newfoundland and Labrador. Muskrat Falls will meet our province’s growing electricity demand with clean, reliable energy for generations to come. Decades of studies and analyses of potential alternative energy sources have continually shown that this project is the lowest-cost way to meet our electricity needs.

The business case for developing Muskrat Falls and the Labrador-Island Link is the same today as the day it was announced in November 2010. The economics of the project have never relied upon any additional revenue being generated through the sale of energy from Muskrat Falls that is surplus to our needs. In an electrical system made up of predominately hydroelectric and wind generation sources, the cost of surplus energy that is made available through the variations in annual rainfalls and wind production comes at essentially no additional cost – the alternative is to let the water go over the dam. Surplus energy not needed in our province will be sold outside the province and profits realized will be for the benefit of Newfoundlanders and Labradorians for generations to come.

**Q24: Does Nalcor believe that all four Atlantic provinces should have a single reliability coordinator, with NL as a participant, or does Nalcor envisage the need for a separate “reliability coordinator” for Newfoundland and Labrador, within the ambit of the Northeast Power Coordinating Council (NPCC), under the North American Electric Reliability Corporation (NERC)?**

A24: A single reliability coordinator for the four Atlantic Provinces is certainly an option but a separate “reliability coordinator” for Newfoundland and Labrador is also a possibility. Nalcor has not adopted a firm stand on this issue and is evaluating all options before making any final decisions.

**Q25: Would participation in joint reliability coordination reduce the reserve requirements for the NL electrical system?**

A25: Joint reliability coordination would not necessarily change reserve requirements. A model with separate reliability coordination would still offer the opportunity to share benefits across interconnections including contractual reserve sharing and emergency power supply arrangements.

**Q26: Does Nalcor favour participation in an Atlantic region power pool, which would also serve as a reliability coordinator? If so, what are the advantages and disadvantages?**

A26: With respect to the reliability advantages/disadvantages of an Atlantic region power pool, please see responses to questions 24 and 25 above.

The question regarding participation in an Atlantic power pool for dispatching energy is very broad and without context of how such a pool may operate, very difficult to specifically address. With this as context, Nalcor assumes the intent of the question is to explore whether or not Nalcor may be able to reap greater returns through participation in such a pool and such is the thrust of the following response.

Through the agreements with Emera Inc., Nalcor has secured transmission access to and through the Maritime Provinces that will enable export of surplus energy. The Maritime Link will connect the island of Newfoundland to Nova Scotia and to the North American transmission grid for the first time and is designed to transmit power to and from the island of Newfoundland. This interconnection to the North American grid will provide access from the island of Newfoundland to markets in Atlantic Canada and New England allowing Nalcor to export energy not required in Newfoundland and Labrador to other markets throughout Atlantic Canada and New England, thereby returning revenue back to our province.

The additional Energy Access Agreement (EAA) signed in November 2013 between Nalcor and Emera's subsidiary Nova Scotia Power Inc. (NSPI) enables the sale of energy that is surplus to Newfoundland and Labrador's needs to Nova Scotia at market prices. Under the EAA, NSPI will be provided the opportunity to compete for Nalcor's surplus energy that is offered only when it is not required in Newfoundland and Labrador. The power sold will be at the best prices that Nalcor would have obtained if the power had been sold in markets in the United States. The EAA secures another market for Newfoundland and Labrador's surplus power and creates value for the people of the province.

Nalcor also has transmission access to and through Quebec and has been conducting transactions in Eastern Canada and the North East United States since 2009.

Finally, the hydroelectric reservoir systems in Newfoundland and Labrador enable Nalcor to manage its resources to further increase value from its energy export activities.

Combined, Muskrat Falls and the associated transmission projects, transmission agreements to and through the Maritimes, long-term transmission access through Quebec, and our ability to manage our hydroelectric resources has secured access to a diverse collection of export markets including Nova Scotia, New Brunswick, New England, Quebec, Ontario and New York and it is through this diversity that greatest value can likely be returned. Nalcor will be able to market and trade the province's excess electricity output in markets across Canada and the United States at the best possible prices, which will create value for the people of the province.

**Q27: Does Nalcor have liability insurance for the North Spur? If so, what is the limit?**

A27: The North Spur is covered under the project wrap-up liability policy, which has a limit of \$100 million. There is no separate rider for the North Spur. The insurers underwriting the policy were comfortable that the risk specific to the North Spur was being addressed. Therefore, it was included in the wrap-up policy and a separate policy was not required.

**Q28. In October 2012, Humber Valley Paving put a lien against Grey Rock Services Inc. and CF(L)Co. Two weeks after this legal instrument was filed, there was a discharge in which Humber Valley Paving said that they were completely and totally satisfied that all of their claim had been met to the tune of 4.2 million dollars. Have you [Ed Martin] or anybody that you know on your management team, particularly who might be our liaison with CF(L)Co, had any meetings with Mr. Frank Coleman or anybody else in Humber Valley Paving on the settlement of this particular claim? Did CF(L)Co or any part of your organization contribute**

**any money to the settling of this 4.2 million dollars to Mr. Coleman and Humber Valley Paving?**

A28. The lien related to a contract between Grey Rock Services and CF(L)Co to complete runway upgrading and paving. Humber Valley Paving was subcontracted by Grey Rock to complete paving work associated with this contract. No one from the CF(L)Co management team that was involved in the management of that project or from Nalcor Energy spoke to Mr. Coleman or anyone else with Humber Valley Paving related to that lien. Neither CF(L)Co nor any other part of Nalcor contributed any money to the settling of the lien. CF(L)Co withheld payment to Grey Rock until the lien was removed. A lien was filed by Humber Valley Paving and discharged in the time frame noted.

**Q29: What assets has Nalcor pledged for the Muskrat Falls loan?**

A29: As part of the MF/LTA and LIL financings, Nalcor has pledged as security its shares in the following wholly owned subsidiaries involved in the development, financing and operation of the Project:

- I. Labrador-Island Link Operating Corporation
- II. Labrador-Island Link General Partner Corporation
- III. Muskrat Falls Corporation
- IV. Labrador Transmission Corporation

Assets of other non-LCP related Nalcor lines of business / subsidiaries have not be pledged as security for the MF/LTA and LIL financings.

**Q30: The Province gave Nalcor \$704.3 M in 2013 and in 2012 \$45.0 M for Nalcor capital investments. What cash is needed from the Province by Nalcor each year for the next five years.**

A30: Nalcor works with the Province on an annual basis to determine the equity investment requirement for Nalcor and are only finalized as part of the Province's annual budgetary process. For the Province's fiscal year ending March 31, 2015, the budgeted equity requirement for Nalcor was approved to be \$552.7 million. Equity requirements for future periods will be reviewed and approved through this process in future budgetary cycles.

**ONLINE QUESTIONS:**

**Q1: Has Emera and Nalcor invoked the dispute resolution yet in any of the agreements?**

A1: Neither party has invoked the dispute resolution.

**Q2: What will domestic ratepayers be paying for electricity in five years? In cents per kilowatt hour?**

A2: Investments in our generation and transmission assets are necessary to continue to meet our customers' requirements for safe, reliable and affordable electricity. When we look across Canada, other utilities are making similar investments in their systems. The Conference Board of Canada estimates that an investment of some \$350 billion must be invested in the country's electricity system over the next 20 years.

While Muskrat Falls plays a significant role in ensuring we can meet our electricity needs, we are also making other critical capital investments through Newfoundland and Labrador Hydro (Hydro), such as the new combustion turbine at the Holyrood plant and the new transmission line from Bay d'Espoir to Western Avalon, to name a few.

Together, all of these investments will have an impact on electricity rates for consumers. As well, in the coming years, before Muskrat Falls is in service, electricity rates are expected to increase as a result of rising oil prices and our dependence on the Holyrood Generating Station to generate power for island customers.

In 2018, electricity rates for households on the island are projected to be 16.4 cents per kilowatt hour (kWh) which is about \$249 for an average monthly bill, approximately half a cent higher than the rate estimated at sanction of the Muskrat Falls Project (15.9 cents/kWh). Looking out to 2020, electricity rates will be around 17.3 cents/kWh or about \$262 for an average monthly bill. This includes anticipated rate increases with Muskrat Falls in service and all planned capital projects by Hydro on the island. When Muskrat Falls is fully operational and our province is powered almost exclusively by renewable energy sources, rates will stabilize for customers, increasing on average around one to two per cent per year.

**Q3: Why won't Nalcor insist on a Supreme Court of Newfoundland and Labrador and Canada review of the Water Management Agreement before spending billions on a facility that may not be operation beyond 20% firm capacity?**

A3: Newfoundland and Labrador has implemented a water management framework to ensure that hydroelectric generation resources are managed and operated in a manner that would

result in the most efficient production of power. Extensive evidence has been filed with the Newfoundland and Labrador Board of Commissioners of Public Utilities (PUB). The Water Management Agreement was approved by the PUB in March 2010 and is available on the PUB web site including the final order and the reasons for the decision.

We have no concerns with respect to the legalities of the Water Management Agreement, so see no reason to submit it to Court for review. Nalcor is legislatively required to have a Water Management Agreement in place with Churchill Falls (Labrador) Corporation and pursuant to the legislation and the terms of the Agreement, the Agreement cannot adversely affect any provision of an existing Power Contract involving either of the parties to the Agreement. The Water Management Agreement does not adversely affect the rights of the customers of existing Power Contracts, as they will continue to receive what they are entitled to under those Contracts.

**Q4: In forecasting power needs, and the role of efficiency measures for reducing winter peak demand, Nalcor stated that for the existing housing stock, efficiency measures were approaching saturation. Yet efficient heat pumps reduce energy demand for the electric heating component by 50 to 65 percent, since those equipments have a coefficient of performance of 2 to 3 at cold temperatures. Does this not contradict the suggestion of efficiency saturation?**

A4: Existing rebate programs offered through the joint utility takeCHARGE program have seen strong uptake resulting in the potential additional savings through those programs to be declining as we move forward in time. The savings from heat pumps are primarily from energy savings and not demand reductions. While the full impact on the system winter peak has not yet been fully studied, it is expected that at certain winter peak conditions customers using heat pumps would have to rely on a back up heat source. The resulting use of back up heating has the potential to result in a higher winter peak. There are a number of types of heat pumps and there is a research study underway to assess the impact of the mini split heat pumps on residential energy consumption and peak demand in Newfoundland and Labrador.