MFI – Interview Summary		
Date:	June 27, 2018	
Location:	Grant Thornton – 15 International Place, St. John's NL	
Attendees:	David Malamed (Interviewer) Steve Power (Interviewer) Angie Brown (Interviewer) Lisa Walsh (Note Taker)	Ed Martin (Interviewee) Harold Smith (Council)

This document contains summary notes of the interview held with the above noted attendees. These summary notes are not intended to be an official transcript of the interview. These notes were based on the taped recording of the interview. These notes are for discussion purposes only and should be shared only with the interviewee and his/her legal counsel. The purpose of these notes is to determine if the interviewee believes any responses are factually incorrect based on the interviewee's recollection of the interview. Based on feedback from the interviewee revisions will be made if determined necessary.

Date of summary: June 27, 2018

Note: Bolded items represent questions asked by Grant Thornton LLP with the interviewee's response immediately following in point form. Where the response was provided by legal counsel it has been noted.

- **Start at 9:30AM**
- **You would like to discuss some material first?**
  - I wanted to provide more detail on my background
  - Prior to that I would like your background as well David
- **I am a forensic accounting partner with Grant Thornton, forensic investigations is what I normally focus on. The majority of my work is civil but I do have a lot of criminal background as well. What we want is a clear story to tell.**
- **Ed Martin begins his discussion**
  - Education – undergraduate business degree, MBA Calgary - finance major
  - Majority of career with Exxon Mobil working with offshore drilling (started in Halifax)
  - Went through Canada and then ended up in St John's with Hibernia – $6B-7B undertaking
  - Managed by a joint venture - I became an employee of that joint venture company but still heavily attached to Mobil Oil
  - Performed a variety of tasks there
  - Became the GBS project which is about half of that project
  - 2.5B project – spent time as the business manager in charge of project controls
  - Ended my career with HMBC as Chief financial officer
  - Moved to Petro Canada where I was lead on joint ventures on the east coast

- There my responsibility was leading construction for White Rose
- Preparing to sanction Hebron
- Being responsible for their exploration offshore developments
- From there I became president and CEO of NL Hydro which included several elements and other companies which I was also the CEO of
- Formed Nalcor Energy
- I was also President and CEO of Nalcor Energy
- I was recruited for the Nalcor job and I applied – I was successful in getting that role
- Political affiliation – I have none, never have
- Dean McDonald was the chair-person at NL Hydro. He was the key point person who hired me – also interviewed with Premier Danny Williams and several board members, all of whom I never met
- Been part of many external boards – several years
- Canadas energy person of the year 2013
- Corporate Knights Clean 16 CEO Canada
- Alumni of the year for the school of business at Memorial
- Been involved in coaching sports for my four sons
- Been married to the same woman for 40 years

- **Today we are talking about Muskrat Falls. Can you tell me about how it all got started?**
  - I want to limit my framework – the points I will make are critical
  - When I first joined Nalcor
  - One of the first orders was to plan the energy future of NL – which includes Muskrat Falls, Gull Island, Churchill Falls, oil and gas
  - We set out to create that vision
  - That was clearly laid out in the provincial energy plan
  - That document was the summary of thinking in terms of where we were and where we were going
  - NL is one of the less wealthy in North America
  - Abundance of natural resources
  - How were we going to turn this around for future generations – long term view
  - 500,000 people, one of the smallest jurisdictions in the world, large geographically, massive hydroelectric and wind resources
  - Sitting next to some of the largest electricity markets in the world
  - In 2041 the Upper Churchill project will come back into the ownership and control of Newfoundland and Labrador
  - In that context it's a great opportunity
  - Oil and gas side we have massive opportunity offshore
  - We don't have land lock problems
  - Ocean access
  - The combination of those two

- When you run the conservative projections – if done properly in the longer term, 25-35 years it's clear that at a per capita basis it could be within the to 10% wealthiest places on earth
- A significant portion of that is how we handled Upper Churchill
- The fifth largest hydro plant in the world – number one plant for the catchment area of the reservoir
- Provides 15-18% of Quebec's power - that contract needs to be renegotiated within the next two to five years
- Locked down until 2041
- They will need to know now what their plan is for 2041 – it will take 20-25 years to build something to replace
- We completed the energy plan
- Four points relevant to Muskrat Falls (within the outline provided)
- Established a long term focus for renewable and non-renewable
- Leveraging non-renewable into renewable for the future
- Nalcor taking a lead role
- LCP – the Province will lead the development thorough Nalcor

- **Referring to the corporate structure slide**
  - CEO and president of Nalcor energy but also CEO and president of these six companies
  - NL Hydro– Crown utility which was responsible for the generation of the vast majority of electricity in the Province
  - Churchill Falls – joint venture with Hydro Quebec and Nalcor owns about 65%, and Hydro Quebec owns 35%. It's comprised of 5400MW plant. 735KV transmission line going from Churchill Falls to the border of Quebec, also some distribution/transmission lines going into Labrador
  - Oil and gas – include interests in Hibernia south, white rose, Hebron developments. It is mandated to own 10% of all successful developments.
  - Lower Churchill – Gull Island and Muskrat Falls, primarily Muskrat Falls now. About six different companies from a financing perspective
  - Bull Arm – largest fabrication yard in Eastern North America. Built during the Hibernia days and eventually transferred to Nalcor. Recently portions of Hebron were built there. Idle at this point
  - Energy Marketing – which was formed to sell the current excess energy which is primarily from Churchill Falls and eventually Muskrat Falls through two routes, and intended to be the marketer of Nalcor's Oil and Gas
    - Since I joined the company in 2005 we had some success
    - We improved safety by over 95%
    - Environmental record by 25-30%
    - Operations and up time have greatly improved
    - Sanctioned the Muskrat Falls project and commenced construction
    - Set up the Oil and gas
    - Took over Bull arm
    - Set up energy marketing
  - We are well set up for the future – from Nalcor and the provinces perspective
  - We grew the asset base from $2B - $2.5B
  - At the time I left it was in the $14B – $15B range
  - The returns on that from a net perspective are about $40M-50M per year

- To be positioned to earn $400-$500m a year
- Improved our safety record
- Commenced the rebuild of the old assets outside Muskrat Falls
- Debt equity structure was improved – against that asset base and the returns this will get very strong
- We will have connected to North America both ways for the very first time
- Self-sufficient with electricity and oil and gas
- Would have completed the future needs for long term energy with Muskrat and Churchill Falls which was the goal
- Talk about oil and gas for a second to show framework in terms of why we are confident

- **Refers to a slide**
  - "NL has numerous large offshore basins"
  - The first slide is to show size
  - The left-hand picture is a picture of the north sea
  - Geographically our offshore is about two and a half times the size of the north sea
  - The next slide is two pictures
  - Size comparison to the gulf of Mexico
  - Hatched area represents the seismic exploration program which we invested a quarter of a billion in that
  - Size wise – much larger than the gulf of Mexico
- **Next slide**
  - Example of the same offshore area
  - Shows four purple dots represents producing areas in Newfoundland and Labrador
  - The red dots shows one of the comparable areas found, and shows a series of potential finds
  - Prospectivity extremely high
  - The future of oil and gas shows we will be competing primarily with Brazil
  - That was just a brief summary
- **Next slide**
  - "Conservative revenue projection"
  - Left hand side is dollars and bottom is the years
  - The first blue bars are revenue essentially set if we do nothing else at all
  - The yellow line is from an oil and gas perspective – instead of saying 1 in 10 wells being drilled we say 1 in 35. The additional oil and gas
  - Experts say this is conservative
  - The purple line is if we got spot market prices for the Lower Churchill – we allowed for spot market prices
  - Nalcor net income if we do nothing will be $500M a year on average; which is the blue line
  - After 2041 the income goes up significantly because Churchill Falls comes back
  - If we ever put Quebec's replacement value on it, it would go off the charts
  - We didn't bother to do that – there is a lot of potential there

- Yellow – oil and gas, it starts to grow from $500 thousand, it starts to touch a billion
- There is a high probability that you will see numbers in these ranges in the future – this is Nalcor revenue alone
- Provincial debt is in the $10-$12B range I think
- Some of the less informed people will talk about the provincial debt
- It's very misleading
- Say you are in college and buy 500K house but you have equity for 150K in it
- It's like people saying you are in 350K debt – but you have a 500K asset with 150K of equity
- You can sell an asset
- A debt there would be much different than a debt the Province will carry for roads, hospitals and social programs
- Against Nalcor's debt they have significant equity and have significant cash flow
- You still own the asset and have significant equity in that asset
- It's a revenue producing asset
- You would never sell it
- The next slide is the "consolidated capital structure"
- Projected debt/equity
- What you see is over time the debt/equity structure gets stronger
- Another indication that Muskrat Falls – you have to look at the value of the asset not just the debt

- **Last two slides**
  - The Province also gets additional revenue
  - Muskrat Falls – the Province is assessing a water rental charge for Muskrat Falls – which is going into the rates
  - They are paying a rental for Muskrat Falls, CFL(co) and after 2041 Churchill Falls would be even larger
  - These are dollars that are being paid into the provincial coffers
  - Government has a choice to give it back to the people or put it back into other programs
  - The royalties and taxes paid to the Province from oil, which is in addition to the Nalcor net income, the Province is getting water rentals, In addition to that they are getting royalties which would be quite conservative
  - When you move in to 2020s and 2030s it moves up $3B - $4B a year
  - I will stop there but the key message is that we fulfilled what we expected to in the energy plan
  - We have a good future in place
  - Investments have great debt equity structure
  - Well positioned for when Upper Churchill comes back
  - Muskrat Falls will affect the rates but this provides us with the wherewithal to deal with it
  - That fits into the energy plans goal - We have to put non renewables into renewables
- **Slide number 4**
  - "CEO Leadership approach"

- I wanted to explain and describe my leadership approach
- In three categories (framework, right people in right seats, appropriate controls)
- I let my leads run the business
- I spent my time helping them with issues they had
- Making decisions I had to make
- I spent a lot of time with my boards of directors, and the department of natural resources, and the government
- Minister of natural resources, minister of finance, premier were my contacts
- Boards of directors – there were many
- Nalcor and each of the other companies and the Muskrat Falls structure had over six boards that I was involved with
- Just stating that to say that was a key focus of mine
- I am a principle based leader
- Process driven
- Team based
- Collaborative view
- Safety and performance based
- From there I structured Nalcor's vision, worked as a team to come up with values, clear goals we laid out
- Everyone did their corporate objective based on those five goals
- From that point we instituted a clear performance management schedule
- Typical leadership plan, adjusting framework
- Putting the right people in the right seats – when I first went in there I made some changes, done in a very structured process
- I had the ability to have the quality of those people validated from third parties
- I had companies like Westney, IPA, MHI, IE
- Documented their views, or talked about it with me
- I regularly sought out the reviews – not because I had issues
- Had the comfort from the third parties that my selections were strong
- If you get the right people and know what has to be achieved – you can delegate authority to the extent I did
- Delegation without structure is anarchy – we didn't have that
- Making sure you have appropriate controls checks and balances in place
- I put those into several categories – not exhaustive
- First – do we have project policies and procedures in place to start Muskrat Falls and we did
- Project execution plan – the Nalcor decision gateway process, well documented basis of estimate, management systems and controls, project risk management document, project governance plan, financial authority procedure
- Ensuring there is a comprehensive internal control framework
- Approval authority matrix clearly followed

- Internal audit department that I had initiated a review by the institution of internal auditors – we got the highest rating out of three
- We had auditors for Muskrat Falls specifically
- Significant internal audit reviews on the project
- Had external auditors
- Project quality assurance process which was a form of audit within the project
- Multiple internal department cross functional representation
- When I went to the table to negotiate an arrangement or someone else went, we had clear representation of key departments who had to sign off – there was never one person doing something
- We also had government signing off on it – chief of staff, premier, natural resources, deputy ministers
- Emera – Charles Bown, Brian Taylor (chief of staff for the premier)
- Any type of significant negotiations at the table would have significant representation
- Also instituted a Nalcor due diligence process for key contracts for the project
- As a key part of project award process, for contracts over $10M I required project sign off as well as each department had to sign off on the contract before they were awarded
- Over $100M I required a cold eyes review before the sign off and issued a full summary of the review
- A period of 8-10 days
- They issued a cold eyes review of it
- I was provided with the signatures
- I had all the expertise signing off on things that I might not have had the expertise in before I signed anything
- I signed off with as deep of an understanding as possible after I involved the right people with the right expertise
- Going to third party expert review and validation reports
- My guidance to leadership was to get people in and get a fulsome picture
- I have no problem with people identifying risks and issues
- I want to have it mitigated early on
- Third party reviews: Westney, IPA, independent project reviews, DG2 and DG3 by external people, Navigant, MHI, consumer advocate at the time when we went to the PUB, IE was heavily involved, bond rating agencies, federal government with the loan guarantee
- Structured governance processes
- We did a best practice corporate governance review that was carried out over a few years
- Led by one of our board of directors – Gerry Shortall
- He was with EY before
- He led that from a board perspective
- Derrick Sturge CFO was the lead working with Gerry
- Derrick had a responsibility with Deloitte as being their point person for corporate governance excellence in Canada
- Summary report issued at the outset

- Fulfilled all of the bits and pieces that we wanted to improve on
- LCP governance and controls June 2014 is a good document to show how it flowed into Muskrat Falls
- Multiple boards of directors
- The way it was set up in conjunction with the financiers was Muskrat Falls subsidiary boards were set up so that each boards had multiple directors
- There were committees on the boards, Nalcor leadership team, AFE had to be approved, annual public general meeting that I had to explain things to the extent I could
- Quarterly reports and calls
- Risk management process in place
- Access to information that tool was made available to the public
- Got a lot of requests for information that we usually fulfilled
- Quite a set of regulatory questions and answers with the PUB that's fairly comprehensive
- Provincial government approvals and processes
- All flowed from the Nalcor mandate which flowed from the energy plan
- The government required a number of reports at sanction
- Key questions:
  - Is there a demand for the power, is natural gas an option, rate for the power, etc.
- 7-11 different reports that the government issued
- MHI was a key one – did two reports for the Province and one for the PUB
- I can get the list for you but it should be on the website
- Water management issues and negotiations and legislations
- Approved the projects from an environment prospective – LTA, Muskrat and LIL
- Involved in sanction, and provided a completion guarantee
- The next section is senior provincial government representatives at the table, and I have gone over that
- Emera – Charles Bown, Brian Taylor
- There have been five premiers and I don't know how many ministers of energy
- I may have to correct the names if I am wrong
- Dawn Burrage was deputy minister of justice were there every step of the way with me
- FLG - Charles Bown and the department of finance had a representative there (could have been Terry Paddon)
- There was representation there
- Hebron it was a similar situation on the oil side – always had a deputy minister or chief of staff present
- We had a direct line into the government so they always knew what was happening
- I presented to cabinet and other deputy ministers on many occasions
- Had to keep them in the loop and be open for questions
- At a certain point we established the oversight committee
- I just wanted to lay out the framework

- The processes were deep and well structured – internal controls were there
- I set up this because it was good business
- Walls were up to ensure we didn't have interference
- It couldn't happen unless a lot of people were complacent
- I will turn my attention to Muskrat Falls

- **Break 10:38**
- **Return 10:45**
  - Muskrat Falls
- **Ed provides a brief project description (map)**
  - Walk through the components
  - Strategic prospective Newfoundland is connected in a loop to North America for the first time in history
  - Starting at the left hand side of Labrador Churchill Falls comes down the river, come down to the Gull Island development which is currently environmentally approved but limited construction
  - Muskrat Falls – the dam site which is connected to Churchill
  - Muskrat Falls plant, LIL which goes to Soldiers Pond
  - Separate from that is the Maritime Link
  - Contractual access arrangements between us and Nova Scotia with Emera
  - From Churchill Falls we also have open access to the US and through Quebec and through Ontario a 265MW open access contract established
  - We could draw the lines between Churchill and Quebec into the US and Ontario, as well as Nova Scotia
- **Handout**
  - "Project background and rationale"
  - Going to go through a summary through the elements that have support behind them
  - Then I will go through a financial summary that was prepared for me
  - Occurred around the second round of cost increases
  - Part of this is the CPW analysis
  - Recently I have heard the demand forecast has changed which doesn't affect it a whole lot in my opinion
  - It's down now, it will go back up, it will go down again
  - The iron ore mines in lab and some of the mines in Newfoundland were popping up everywhere
  - Projects were being proposed everywhere
  - The only issue I found with that was demand
  - They dropped again but I can see it going up again
  - Oil prices changed
  - The other key part of the oil and gas forecast is the exchange rate
  - At the time of sanction the exchange rate was the .9 - .95 range
  - But now at the price and exchange rate being .75
  - You really have to look at oil price and exchange rate because of Holyrood

- At the time the Province certainly needed more power
- The Holyrood plant is very old and needs to be replaced
- A decision needed to be made – no decision was a decision
- I was a key part of making a decision in conjunction with the board and the Province
- Doing nothing was not an option
- At the time Muskrat Falls was determined to be the lowest cost option
- That is much more of an investment with the long term cash flow
- The isolated option 60-70% of that cost is oil for Holyrood and other facilities which means a large portion of the cash from the rate payer goes external from Newfoundland
- Muskrat Falls when you invest in it there is an 8.4% return on equity on that which is built into the rates
- Over time a significant portion of your heat bill will be a return on equity
- They can choose to return that back to the people if they choose
- $28B-$30B based on older numbers in this analysis which will increase
- Over the next 50 years the people are paying to themselves
- In the isolated option A huge portion is going to outside oil companies like Exxon
- The financing for this project – I think its 35 years for the dam and 40 years for the transmission and both of those are structured so that there will be no debt left on it at that point
- Over the next 35-40 years the Province will own these assets outright
- Niagara Falls in operation since 1900s, Hoover dam 1930s, Churchill falls since 1970s
- Long term assets that will be debt free once they are paid for
- Intergenerational benefits
- Clean power – approximately 98% GHG free – essentially 100%
- Enables the Province future cost of carbon
- Built here so a huge amount of value
- The analysis assumed that the full cost would be going to the rate base
- We made the decision assuming we would not have any value of excess power offsetting the cost
- This was for the people of the Province
- We didn't have agreements in hand so I didn't think it was right to include it
- The Province had to be able to stand on its own two feet with it
- We do have the option to sell excess power now
- Strategically we are connected both ways to North America
- Significant improvement to reliability
- Analysis in the increase in reliability offered by Muskrat Falls and the Maritime Link combination
- We are locked into interest rates
- Federal loan guarantee – the key point is that the federal government said we needed to have a regional solution
- At the time the estimate was $6B over the life of the project financing

- Successful with reaching an agreement with the Innu of Labrador – a new dawn agreement
- We helped the federal government with how the land claim would be finalized
- We addressed the Upper Churchill issues with the Innu Nation
- Took a significant amount of risk away from the aboriginal issues
- Environmental approval for Muskrat and for Gull
- That's the top level rationale

- **Handout**
  - "Net benefits to Newfoundland DG3"
  - CPW was what we used publically
  - I think it was the right move
  - In my role the publicity, positive or negative from some of the local naysayers or government having the facts or not - it's really irrelevant
  - When I made decisions it wasn't in that context
  - It is very nice to be liked but it's not necessary
  - What I have here on the left hand side is the categories of financial data
  - First numbers column is the Isolated Island option – a series of generation investments (rebuilding Holyrood, multiple small projects)
  - Interconnected option (Muskrat Falls and LIL, LTA)
  - The first column is nominal is the total amount
  - The next column Present value of those dollars
  - Net total is the difference between the two
  - There are in billions of dollars
  - CPW – the one that's published
  - To describe CPW – computer assisted programs and people with expertise who input
  - You take each option and summarize it over an annual basis the expected expenditure
  - Whatever expenses it would cost you to build it
  - You would map those out over an annual basis over 50 years
  - Then get a present value
  - The discount rate was around 8% - don't hold me to that
  - It was a reasonable rate that was used
  - You would do that for one option and the other options and present value of those costs
  - This would come up with the lowest cost option
  - This work was done by experienced people
  - And checked by third parties
  - Muskrat Falls was favoured $27B nominal over the years which is a present value price of $2.4B
  - You would count that as a check mark in favour of Muskrat Falls

- CPW induced – the economic folks show the impact on the economy of Province and the value staying in the province
- This is a well-established process done in many areas
- What it shows here is that from a nominal perspective this actually favours the isolated case because there is more capital being spent than Muskrat Falls but it's spread over a longer time
- The present value of Muskrat Falls versus the present value of capital expenditures on the isolated would favour the isolated on a present value perspective but on a nominal level would be the other way around

- **Repeat that?**
  - Look at the isolated nominal
  - The calculations show that there is a $22B benefit accruing to the Province because of the multiplier effect on expenditures made in the Province based on what the isolated offers
  - Look at interconnected nominal its less benefit because of more capital being spent in the isolated case over 50 years than in Muskrat for 50 years
  - Muskrat Falls expenditures are up front – difference in present value
  - The expenditure is further out in the isolated case
- **Where are you saying flipped the other way when I compare CPW and CPW induced? What am I missing?**
  - Let's look at nominal first and present value is the confusing part
  - Under the isolated case $74B cost – mostly oil and gas (I think 60-70%) which would leave $20B
  - That $20b is a combination of operating costs, and more importantly capital costs to rebuild Holyrood, build natural gas plant, wind farms, and two hydroelectric facilities, more gas turbines
  - If you add up that capital over 50 years it's more than it costs to build Muskrat Falls
  - If you spend more in the Province there is more of a multiplier effect that helps the province
  - (Isolated) The throw offs there is about $22B
  - Muskrat Falls is a lot less on a nominal basis so the benefits would be less
  - From a nominal perspective spending more capital over the 50 years so more benefit to the province
  - Muskrat Falls less capital over the 50 years less benefit to the Province with the multiplier effect
  - The present value of the isolated nominal is about $3.2B
- **And that's a benefit?**
  - Yes
  - That's a benefit to the province
  - This can be paid to employees that are building the projects – who spend more money within the Province
  - Which puts it into our economy which will grow our economy overall
  - Money paid to businesses creates more housing, more cars, more TV's etc.
- **Wouldn't the provincial benefit would be higher than isolated?**
  - No because isolated is spending more capital in the Province over 50 years than Muskrat, feeding the economy
  - You have to rebuild Holyrood and replace it with a gas plant which is very expensive
  - Two small hydro projects need to be built

- There was wind farms included and gas turbines that needed to be added
- If you add up all that capital over 50 years its more than Muskrat Falls over 50 years
- Muskrat Falls is all upfront costs
- You are building more stuff so it's more expensive

- **When I look at the numbers with the total present value and they add down to $7B, I would think the 723M be going in another direction?**
  - Great point
  - This calculation is done on cost so you have to turn it around
- **If I think of it in terms of cost it looks like the opposite of what you mentioned.**
  - My mistake
  - It's a flip of that
  - If you are saving there us a CPW effect of the saving because people have more money to spend because based on the savings
  - If you are saving more there is less
  - A reverse CPW effect on the savings
  - People having less cost and more to spend
- **In terms of CPW that moved CPW induced. Assume something has been removed to get from 74 to 22, is that correct?**
  - Yes you are right
  - Remove isn't the right word
  - The difference in the final column is the savings to the people
  - The savings will benefit the people
- **So is the savings reducing that 74 to the 22?**
  - No the 22 would be the savings
- **If I wanted to get the Net of the two you are saying take the 74 minus the 22?**
  - Yes
- **We would want to see that number as high as possible?**
  - This is a cost but you are right yes
  - It works but I need to explain better
  - Now I will change from a cost perspective to a value perspective
  - Put the previous concept aside for a second
  - Now we go into what additional benefits are accruing for the Province
  - If you look at income there is more income with isolated from a nominal perspective than on interconnected because of more capital being spent
  - In that case in nominal it favours isolated over time
  - Because of the income generated in the Province
- **The 2.3m being greater than the 1.3m – the 1.3m is more advantageous?**

- On a nominal side its 7.44B that's more than the 5.77B therefore that favours the isolated
- Present value helps Muskrat Falls because the costs are upfront
- So nominally helps isolated and present value helps Muskrat
- Go into dividends
- This goes into the 8.4 return on equity
- If you look at the isolated case - the way it is structured
- There is more dividends being paid on Muskrat falls than the isolated island
- That's primarily driven by a significant portion of the operating costs for the isolated
- Muskrat was structured to provide over 22B in return on equity for the Province
- That's included in the rates so it could be given back to the people
- Treasury this is basically taxes
- There is more being spent in the isolated vs Muskrat
- Smaller number but the same impact - still 862M going back to the treasury of the Province included in the rates
- Export sales there is none in the isolated, but there is $3B not included in the CPW of the excess power that Muskrat Falls could provide
- That is not in rates or CPW
- That $3B was never incorporated so that could go to the government to do whatever they wanted to as well
- Water rental is going into the rates so that would be circulated back into the province
- The cost of carbon wasn't included in the CPW because – but we did an analysis on what the cost of carbon would likely be if Canada imposed it.
- That's not included in anything else – if it were included it would help Muskrat Falls and hurt isolated
- Innu dividend piece – they live in Newfoundland and Labrador so it would be seen as going back to the Province
- You do the calculation and it shows a $60B preference including all those things for Muskrat Falls over interconnected for 50 years

- **On your export line does that exclude the power that goes to Emera?**
  - Yes
- **Dividends – the returns are pushed into the later years?**
  - Yes
- **Does this reflect that?**
  - Yes back end loaded
  - But there is still a significant cash flow and then more later
  - LIL cost of service
  - Muskrat Falls - PPA basis
- **Why would LIL be cost of service and Muskrat is PPA?**
  - From a logic perspective the transmission is traditionally cost of service
  - Primarily serving the rate payers

- We thought cost of service would be an easier sell to the financiers
- Muskrat Falls – 40% of the power will be used for Newfoundland and Labrador
- 20% was going as an exchange for the maritime link
- The other 40% was going for export sales – declining over time
- Cost of service didn't really fit that
- We needed to create a rate structure here
- Take those two curves – the combination gave a smoother curve for cost for the ratepayer
- We wanted to smooth it out so we had reasonable costs to the ratepayer
- Next page
- What type of impact nominally are these cost and revenue adjustments making over time
- The first blue bar is 6.8 and that comes off the nominal from the previous page
- At that time we completed the financing and did better than expected
- Excess sales – did an arrangement with Emera which indicated that we had more than planned
- Two cap cost increases at that point going from 6.2 to 7 and then 7.65 – that was detrimental
- We had to adjust the isolated capital as well
- Couldn't adjust one over the other
- Got us to the same place nominally
- The big variant then was fuel
- Oil prices will be up and down constantly over the next 50 years – what is the sensitivity
- I asked the finance people to give me a range if it went up or down 25%
- If it went up it would favour Muskrat Falls
- Went down it would hurt but it would still be the better option nominally
- The price of oil would have to go quite low nominally for that number to drop
- Its nominal dollars, back end loaded, coupled with the revenues from Nalcor which will be set
- That helped me say tell me the sources of funding if the government chooses to adjust rates
- Next page (sources of funding)
- Reads list on page (page 4)
- They wanted to ensure a renewable future
- Lots of work was done with rate smoothing and adjusting
- The next topic I want to talk about consideration of options
- There were 5 decision criteria laid out in terms of options
- A decision had to be made – there was no choice
- It was a big decision
- In retrospect there will be an inquiry on Muskrat or one on why we ran out of power five months of the year because Holyrood didn't work properly
- Decision criteria

- These weren't in priority
- Security of supply and reliability – we have to keep the lights on
- Cost to consumers
- Environment – it's being talked about methylmercury lately which is important
- There was a huge amount of discussions at the time of the Holyrood emissions
- Risk and uncertainty
- Financial viability of non-regulated elements

- **Would part of the fifth screening principle consider the benefit of export sales**
  - We would have considered it
  - It had to be considered but I didn't include it because no contracts in hand
- **What would have been included (example?)**
  - It was mostly an exclusion because you couldn't include it
  - I know a couple of things I considered but it wasn't documented
  - When it comes down to debt equity and the debt structure and financial quality of the entities that would have been set up Muskrat Falls
  - The way we handled Muskrat as a whole we only put
  - You saw the debt equity structures and how it was laid out it and how it would be for Muskrat falls. We structured it so it would have a strong debt equity – the entity would have to be strong financially
  - This is more an exclusionary thing – if you can't include excess sales you shouldn't have it in there
- **If I look at Nalcor's submission to the PUB – the benefit of export sales wouldn't be there (the fifth screening principle)?**
  - No it wouldn't be there
  - And it wasn't in the CPW
  - It wasn't considered in the PUB
  - We might have referenced as an aside
  - But it wasn't included
  - So then based on that there was an initial screening of the options
  - I noticed a question you had about interconnected and isolated
  - There was other things included – came out during the screening process
  - Things like domestic gas
  - LNG
  - Waiting until 2041
  - Wind generation
  - Conservation demand management – what would that do for you
  - There were reports done on all of those
  - They are public reports – dealing with why they were not viable options
  - Some info we received and some MHI came in and done a report

- I scanned them last night on the website
- If you want me to talk more about it but I would have to study more
- We got down to the two options
- The other thing we had was Gull Island vs Muskrat
- We didn't have a home for excess sales or transmission rights through Quebec
- Muskrat with a fully sold contract with for the power, Gull would be better than Muskrat
- Gull would be much better on dollars per megawatt
- But if you look at not being able to place the excess energy it flips
- If the ratepayer is picking up on all the slack – Muskrat is much better
- You couldn't take a risk on gull
- Gull was screened out on that basis
- Strategist – I have a good idea on how it works but I am not an expert myself
- We had third parties check on it
- The people doing it had been doing it for years
- I was comfortable with what it was producing what it should produce
- CPW was calculated
- Load forecasting was a big thing – had experts doing it
- Well established approach – common in the industry
- The key inputs are oil prices
- Sensitivities were performed on it
- MHI confirmed the load forecasting
- On top of that there is the oil price forecasting – we used PIRA
- I've been in the oil industry for many years – oil prices are oil prices
- Analysing a projects over on a year to year basis is a non-starter
- You have to do these things in a 30-50year time frame
- You have to make sure you have sensitivities done – make sure you can deal with things
- You do not spend 50 years redoing everything every year
- Case and point is Hibernia
- We sanctioned that project with 525M barrels recoverable
- Prices were $18 US
- We got into issues with contractors
- Oil prices went to 8-9 bucks
- Gulf had issues at the time and pulled out
- Bottom line you can't make your decisions on the day to day things
- Right now Hibernia recoverable is 1.8B barrels
- And the price is fluctuating

- Personally speaking I was comfortable with it
- I referred to the experts
- I look at the rationale in my own mind – since the 60s oil has grown from about 60-65M barrels a day
- Continues to increase worldwide
- China consumes 8X less than the average person in North America per capita
- India is twice that
- I believe my analysis supports the projections
- Demand will rise and fall based on economic global considerations
- You are going to see continued peaking of oil
- A reasonable curve
- An increase in the next 50 years is reasonable
- I am still comfortable about what I did at the time
- I refuse to get into discussions on oil annually
- Should I move on to cost and schedule?

- **Yes**
  - In some cases timing will be significant – or maybe not
  - I need my people at a certain point
  - I need the system planning people
  - Or Gilbert, or Harrington and their guys in here
  - I can take it to a certain point
  - Cost of schedule
  - Nalcor people, project people, and SNC project people who were involved in cost and schedule
  - SNC – engineering contractor provided a full estimating team
  - Had significant Hydro, transmission and northern climate engineering experience
  - They brought in more people for concrete and some other things
  - The basis of estimate is documented
  - Engineering was substantially progressed
  - Based upon the fact that soil conditions would impact the foundations
  - Test soil conditions so they had to make some assumptions
  - Estimate prep - 70% SNC and 30% Nalcor (costs, environmental, etc.)
  - They used an engineering guide
  - They had a process as far as developing hydro projects
  - I was content that they were using a published guide
  - P50 was selected as the estimate basis – It's a parameter common in construction – it's recognised, it's aggressive
  - that was explained to me – I knew it at the time and I was comfortable to do that

- Philosophically from my perspective there was a couple of drivers there
- I was used to doing it on other projects I was on
- I believe to unnecessarily increase the cost estimate
- Two benefits not to do that
- One is: an aggressive estimate does drive the project team because they tend to fulfil the budgets they have
- I wasn't prepared to introduce that concept but I wanted it to be reasonable
- We will talk in a minute about why I was comfortable with what it was
- And we did this in conjunction (we had a lot of dialogue) – that it was acceptable with project team and executive, myself - and we were ok with that
- The public nature of this project and publishing numbers that are not aggressive
- With the behaviour of contractors - they are usually good people but they are driven by maximizing their profit
- I was continuously driven by what was the best value for the Province
- The priority was value for Newfoundland and Labrador
- You have to be transparent
- Informing the public was critical but it had to be factual
- I was always making sure I wasn't compromising and commercial decisions or considerations
- Publically and put things out as quick as possible but it wasn't my focus
- When I was comfortable with the numbers and knew I wouldn't commercially compromise the project I would release information
- I was clear about that with the board and the government
- Third party valuation of the estimate
- MHI
- John Holloman was involved
- John Mulchay who was involved in building many powerhouses across Canada
- Power advance (I think) was involved in the escalation piece
- I was comfortable
- Additional reviews with MHI/independent engineer
- Consumer advocate brought forward another company with the PUB
- Not an exhaustive list
- Risk analysis done
- SNC Lavalin and Westney group did that
- The results were the results
- Strong experience in our estimating team and we had external reviews
- *One quick aside, that brings me to this SNC Lavalin, you know, foolishness that's been out there and that report business that I was dragged out of retirement for about a year ago, something like that. But, you know, I don't know the genesis of that. You know, there was some suggestion I was offered the report, and you know, didn't accept it which is not on. I have actually no recollection of anything like that happening. But I did take the report after I was invited to comment on it publically, had a look at it and, I spoke, I went through it, and I*

remember those, all of those risks had been covered, I called a couple of the guys and where are we on this thing, I mean you know it never happened but I remember all these risks being covered

- I called the guys and asked them about it
- They said it was all covered and SNC was heavily involved in it
- We never avoided risk
- I had to address that because it keeps popping up places
- Project financing
- Not a lot to say on it
- Derrick was leading that for me, and his team
- PWC in Toronto was advising on that in the early days
- John Matovich was an advisor
- Subsequent to the FLG we did an RFP for a financial advisor
- TD led the pack and won that
- They were our lead arranger
- Coming back from that we went through financing options
- Harper government committed to the FLG
- Derrick and a couple of his experts
- Emera's current CEO was with me – he wasn't CEO at the time
- Department of finance representation
- Charles Bowen was with me (I think)
- Brian Taylor the chief of staff was with me
- We negotiated the FLG
- Engaged experts
- We ended up getting TD in and restructured the placements
- And it was placed
- If you have questions on that I might defer to Derrick

- **Once financing in place - would it be fair to say once the agreements were signed there was no point of return?**
  - I need to think about that
  - From completion guarantees
  - Yeah I think so
  - I would have to think about that a bit
  - It's a key element
  - The bonds were out there and set we had to start to make payments
  - If the project had stopped – yeah it would have been problematic
  - I would have to talk to Jim Meany or Derrick and the other guys on that
  - I will renege on that I guess

- *Legal – is this something you would like a response to later?*
- **Yes that would be great**
- **You would have been part of the board briefings, if that had been the point of no return would the board have been aware of that?**
  - Yes the board were aware on everything that we knew
  - If I am understanding the question you are saying we have the FLG in place and get the lead arranger in, structure the financing, place the financing, do the agreements necessary, and receive the money in the bank – is that the point of no return? Correct?
- **Yes I believe it's called financial close?**
  - yes
- **Between the FLG signing and sanction could you stop the project? Or pause?**
  - I understand
  - Don't read anything into my renitence
  - I don't want to answer without the guys and gals with me
- **Break**
- **Return 12:16**
  - Construction section
  - Contracting bid process within Muskrat Falls
  - A couple of principles first
  - Pretty standard flow
  - I was a driver of these
  - I know the people who were working
  - No outside interference allowed – a discussion I had with the Province
  - We had alignment where we couldn't be in a situation where we were influenced – we were following processes
  - The PC government was fine with that
  - Liberal wasn't good with it
  - Confidentiality was paramount
  - Similar processes were with Exxon Mobil
  - Internationally comparing in the bidding process
  - We had the Labrador Innu provisions we had to adhere to, a benefit strategy that we agreed to
  - Nova scotia did a benefits agreement which we had to adhere to as well
  - I will make a note – I have learned to make statements that are very clear
  - I didn't insert myself into the contracting process
  - I didn't get updates from the contracting process
  - Contract packages identified and approved in the project team
  - They come up with a contract package

- Included scope of work
- EOI was issued
- One thing they followed was that the criteria was set before the EOI came back in
- Bidders list was approved
- RFP was issued – same thing the criteria was set before they came back
- Bid clarification
- Landed on recommendation
- Corporate due diligence
- IE and legal counsel had reviewed rights into the material contracts
- Award recommendation
- Award would have been approved based on the approval matrix
- Certain came to me certain ones didn't – it was all based on delegated authority
- Contract was executed – nothing new there
- My involvement when they came to me would be see the cold eyes review, due diligence, sign off sheets
- I would have experts in the room to make sure
- All the signatures would be on the contract before I signed off on it
- Astaldi award – there is an experienced team in place for the bid review
- SNC people, in house people with hydro experience
- The bid review process was a robust process
- Design engineering was already heavily progressed – it was high
- Four bidders
- I remember the bid numbers ranged – there was a significant spread
- Two were close
- Kiewit and Acon were higher
- There was a comparison – a graph showing a representation of how each of the contractors laid concrete (efficiency)
- They seemed to be in the same ballpark
- I remember asking the question and there wasn't a big spread there
- We had a strong contract
- It was a fixed price – incentives built in
- They backed it up with liquidated damages and guarantees (parent company)
- They had a slow start
- If I remember they approached us – I am not sure
- I was involved into understanding this was happening
- They got into financial trouble
- There was a risk of them not completing the job

- There was a tremendous amount of work done which I had a chance to review on negotiating with them
- Our guys and gals put a lot of effort into turning them around
- They did turn around
- Productions rates were going up
- We had benchmarks against that
- They were getting on track
- Public situation had to be managed
- When I looked at it I agreed with the projects recommendation
- To kick Astaldi out and bring someone new in – we agreed to keep them and increase productivity
- Once again there was third party validation Westney, Cleveland and associates, legal firms, Ernst and young, IE, Fed government
- We had inputs to give us the data necessary
- Then I left
- What happened subsequent to that I haven't been involved in it

- *Legal – the government also changed in the middle of this – different team etc. this needs to be part of the assessment. Although Mr. Martin indicated he left there are more terms on why that happened.*
  - The auditor general has a good summary
  - David you probably know that the government changed and there was issues between me and the government for some reason
  - We parted ways
  - This is outlined in the auditor general's report
  - And here I am
- **I am going to go through a few questions now**
- **Energy plan – Page 32 – speaks on LCP says "the government of NL will lead the development…" When I read that it seems that the development of the lower Churchill project was predetermined, am I reading that correctly?**
  - No
  - My understanding it wasn't predetermined
  - My understanding was that it meant we would lead the progression of the development
  - If the commercial and strategic parameters were not in place then we wouldn't have proceeded
  - I understood it as move ahead with it provided it made sense to do so
  - If it wasn't there I wouldn't be there
  - When we say the lower Churchill could be Gull and Muskrat, or just Gull or just Muskrat – prior comments still apply
  - It could have been neither
- **Strategy – page 9 – the same question. " leading the development…" - This being 2011-2013 I am reading the development of the lower Churchill continues**
  - Same answer but I will add context

- It was crystal clear that any development of the Lower Churchill would have to be economically sound and commercially sound
- This was the premise we were working with
- It had to meet those criteria which is what I understood and agreed on

- **Same page, "…significantly advance Lower Churchill.." same question**
  - Same answer
  - There was nothing at that point that was indicating we could not find a commercial or economic reason to go forward with this
  - For instance with Gull Island an important consideration was to achieve open access though Quebec
  - We had to see if it would happen
  - Anything could be read as that we would develop no matter what but it was the opposite of what we do
- **Did you use the decision gate process before Nalcor?**
  - Yes in oil and gas – standard practice
- **Standard in utility as well as oil and gas?**
  - I can't comment on utility
  - It was based on my previous experience with Mobil and Petro Canada
  - As well as Chevron which was standard practice at the time
  - Standard practice in utilities – I can't really comment on it
  - I know it was used elsewhere
- **When was the gate process selected?**
  - I don't know the date but I initiated getting it in place
- **Was there a DG1?**
  - Yes but not documented as well as DG2 and DG3
- **There was a DG2A is that correct?**
  - I would have to check
- **Was there one Angie?**
- **Yes it was outlining the Gull Island option first – order of timeline is DG2A then DG2 in the documents**
  - I would have to check on that
  - It wouldn't hurt to have some of the project team folks here
- **DG2A – after that it's gate two – at that point Gull goes out and interconnected comes in?**
  - Yes
  - Two things were happening that were separate but tended to come together because of timing
  - If we got the right arrangements because it was a lower per MW project that could potentially have higher returns
  - We needed to understand our options
  - Open access had to be in hand
  - Rejection from Quebec on open access

- Hydro we had demand forecasting and generation planning occurring – they were saying we need to make a decision on generation
- On the generation side we started a process - we decided to turn to muskrat
- We had several options to consider – Muskrat or Gull, through Quebec or Maritime
- We had to make a generation decision so at that point we switched to Muskrat
- It still fit into our strategic view

* **You were involved in both gates (gate one and two)? You said once all the experts review you sign off?**
  - Yes that's correct
  - With the caveat that it still gets approved by the board – still have alignment with the Province
  - That's just normal business
  - I wouldn't approve it without the approvals and alignment of those parties
* **Moving from gate to gate. What did you need to see before you signed DG2 and DG3? Is it just they have done their quality control testing – they are happy so you are happy?**
  - I would need to understand what was included in those process in each category to provide a framework to move ahead
  - Each framework yes I would rely on experts – it's a massive amount of detail
  - Right checks and balances
  - That had to happen
  - I would accept the presentation and check that we had the right things in place
  - Contenting myself with the right people and process
  - Asked key questions to make sure I understood what was happening
  - At a certain level I accepted that and the sign off
* **DG3 signature page – I am understanding you would see the package with everyone's signature on top. You might have questions before you sign off correct?**
  - Yes
* **Did the board agree to proceed?**
  - Yes
* **With both Gates?**
  - Yes
* **How were decisions indicated to shareholders?**
  - Various ways
  - Regular meetings with deputies, assist deputies, minister involved, premier, chief of staff
  - Ad hoc on a frequent basis to make sure they knew what I knew
  - Several people would be with me Gilbert and Derrick
  - Would make summary presentations with key points
  - Also presented to the cabinet at times
  - Cant remember the key points – I could find them somewhere

- **Key communications and presentations would I be able to get them?**
  - Yes but I am not sure I am the best one to get them for you
  - I am having a hard time myself getting the information
- *Legal – I am reluctant to say I can get cabinet document because it's different rules for the cabinet but I am assuming these presentation would be available*
- **When I see your sign off on DG2 package – at that point what does that mean for the team at Nalcor?**
  - They would have fulfilled what was required in DG2, they need to proceed to fulfil criteria to advance to DG3
- **You were called the gatekeeper. They needed your signature to advance?**
  - That is correct
- **DG2 sign off page – when I look at DG 2 Nov 16, 2011, that's the date of your signature. I believe the date it proceeded was Nov 16, 2010. Why did it go ahead without your signature?**
  - I would need to check that myself
- **IPA report – have you seen this before?**
  - I can't remember this one specifically – I would have to check with the fellas to see if they went thorough it
  - I have seen reports like it – I am not saying I didn't see it
- **One of the pages I am looking at – page 19. Would you have known which projects would have been used for the comparison?**
  - No
- **Can we look at page 25? Criteria for deeming project a failure. Do you know how that was processed or how it was looked at?**
  - No I don't David
  - Not to avoid the question
  - This is something for Paul Harrington, Jason Kean, Lance Clarke, Gilbert Bennet are who I would have depended on for this information
  - I need those folks to answer those types of questions
- **One of the themes I am seeing is cost overruns and how to address them. How was this considered for the Muskrat project?**
  - In the process that was used
  - Put the right people in place, get third parties to review, went through rigorous process which was documented and verified including quantitative risk assessment
  - Those things would have been considered there
  - I would utilise that expertise and make a decision based on that
- **Where is cost overruns incorporated? Contingency?**
  - Yes
- **Contingency for schedule delay?**
  - I need to back up a bit
  - We did the risk analysis – done by experienced people (SNC, Nalcor)
  - Produced a base estimate P50 inflection point

- Provided an amount that comprised the contingency
- I think that was in the 7-8% contingency range
- At the time I was asking where this fits in, and how it was comparable to other processes
- There was norms from estimating – the AACEI
- That was the process that was being used
- I remember for the class of estimate that was being shown to me and verified by experts – the 7% fell within the range of acceptable contingency – the lower range but it fell within
- The concept of strategic risk – considered. Risks outside the project teams control
- Adding risks that were highly uncertain would be released to the public
- This is not the way I feel comfortable doing anything
- These types of risks were known
- Things could happen outside what we were anticipating
- Nothing is for sure – you couldn't nail me down to an estimate
- These things were discussed
- With respect to people understanding that and accepting it
- They had their own advisors and we did as well
- Within the context of the actual published number it didn't include the larger strategic risk

- **Two kinds of risk. Strategic and tactical – the difference between the two is?**
  - I could give you summaries of that but I would feel better if the guys would be here to go through it
  - I understand the concepts
- **In terms of the AACE – page 3 of the cost classification system the table- DG3 the class level rating was a class 3 is that correct?**
  - I am probably back to where I was before
  - Paul and Gilbert and Jason would be able to give you this right away
- **So would it be fair to say you would get this at a high level?**
  - Yes and I would ask questions
  - I can't remember this sheet
  - But I would get them to go through it and describe it to me
  - I would understand it – ask questions
  - They would explain it until I am good with it
- **What was the feedback from your team after selecting P50?**
  - Well we did it
  - It was clear that there were options – different projects do different things
  - It was more aggressive than P75 – those are obvious things
  - They were prepared to proceed with that and work to it – so we did it
- **Was there consideration with going with the P75?**
  - Yes we talked about everything – it's a good discussion to have

- Any project team would go with as high as they can from a control perspective, that's their world
- You have to balance that off against what's reasonable
- So we talked through things and we came to a conclusion we were aligned with
- They wouldn't carry on if they weren't comfortable – if that was something they had to work to
- We wouldn't have gone forward with it if they weren't comfortable
- It was discussed and landed on as P50

- **Do you know what industry best practice is in terms of P factor?**
  - I wouldn't say its industry specific I would say project specific
  - I would have to get some examples
- **When you were working with oil and gas was P50 selected most of the time?**
  - I would have to check that as well, you are going back a ways– that was 20 or 30 years ago
- **Would you remember the main discussions on the P factor?**
  - Most related discussions would be with Gilbert, Paul, Lance, Jason
  - Could be supplemented by some others as necessary
  - More detailed with folks working on the cost and such
  - That's probably the core group that I would be talking about that stuff to
- **I am finding it hard to find documents relating to P factor selection – can you tell me about any?**
  - I can't think of any right now
  - They should be there
- **Can you remember specifically who you spoke to?**
- *Legal – he mentioned those a minute ago*
- **You talked about P factor with them?**
  - Yes we would have discussed the P factor
  - That's how we did things
  - A lot has happened so the day and time wouldn't be clear
  - But these are the people that would have input and discussion
- **Is this a gatekeeper decision?**
  - If I didn't agree with the P factor I wouldn't have signed it
  - I don't want to create a situation where the impression is created that it's one person and this is how it's going to be
  - My management style is collaborative, we talk about things – seek alignment
  - At some point I have to make decisions on things – but it's considered decisions with considered input
  - made for a reason
  - whether people like it or not – it is what it is
  - It's not done without input, collaboration and thought and a basis
- **In terms of the process and learning from Nalcor. Information is created internally, assessed internally, and then externally assessed by other experts?**

- Yes
- When you say internal usually Nalcor have expertise in their own right – they usually have a couple of experts working with them at the time as well (during the internal process)
- Estimating - SNC and Westney would be working with them day to day
- Brought in experts to create escalation indices
- Internal doesn't always mean just Nalcor
- It wasn't done in isolation
- And then it would go external

- **There would be one or more expert reports regarding the P factor selected?**
  - I am not sure
- **The people listed would know?**
  - Yes
- **One of the things you brought up was the IPR report – you had referenced them as one of the external experts. Is that correct?**
  - Yes
  - There was one on the team from Nalcor and the rest were external
  - The idea was that its always very prudent to insert people who would be operating the plant after it comes into service - to be involved early in construction
  - So after they wouldn't say I wish I had some input into that
  - I had someone from hydro but the rest were external I believe but I would have to check
- **IPR – presentation that was done on the independent project review. Two presentations - differences in the presentation. (reads quotes) Why was it changed from recognized, to included?**
  - No I don't know
  - The folks could fill me in and let me talk about it
- **Would you receive those reports? Or would you go to the project team first?**
  - Yes they would go to the project team
  - Definitely first
  - I don't know if I would see this report or not
  - I knew it happened
- **They wouldn't communicate directly with you?**
  - No
- **Excerpt from the DG3 IPR presentation – has team members bios listed**
- *Legal – so you are saying there is a difference between included and recognised?*
- **Yes**
- *Legal – is it a material difference*
- **Gate 2 IPR report – Derek Owen on It and Richard Westney – did you have concern with Richard being part of the review considering his involvement with Nalcor**
  - None

- **Was this brought up as an issue?**
  - No not to me
- **Any concern with Derek Owen?**
  - Absolutely not
- **You would have known who was on the team prior to being engaged?**
  - Not necessarily
  - One of the guys could have told me
- **Back to the presentation that said included and recognized – would that cause concern?**
  - No
- **You spoke about load forecast – said you understood the process – who does that?**
  - System planning
- **How big of a team would that be?**
  - Not large – less than 5 likely
  - I would like to check that
  - Paul Humphries is the one to ask
- **In terms of the load forecast – who internally would check the forecast that was prepared?**
  - I couldn't answer that
  - I dealt with Paul Humphries
  - He had some people working on it – the name slips my mind now
  - During the outage we had in Newfoundland the PUB hired someone to look at all this stuff – liberty
  - They looked at the load forecasting stuff
- **What did you think of the concern? Is that what you were saying?**
  - No
  - Maybe more relevant to your question – I believe MHI looked at load forecasting and in one of the reports filed with the PUB MHI was hired and they commented on the forecasting done within Nalcor – in general they gave it a thumbs up other than some concerns
- **Do you know if their concerns were addressed? And by who?**
  - Paul Humphries is a competent guy so I would say he addressed them – check with him though
- **Options – can you explain in terms of alternatives was there any discussions with hydro Quebec?**
  - No
- **Did you ever talk to Hydro Quebec about importing power to the province?**
  - No
- **Was there a reason?**
  - If you go through the screening criteria – it would be difficult for them to pass that test because there was no LIL built yet
  - You would have to have one son of a gun contractor in place to proceed with the Labrador island link
  - Time would not permit that kind of work

- In addition to that my experience with Hydro Quebec – they are not in the charity business – they would price their power within the next best
- Risk and uncertainty with the long term relationship with Quebec
- As you progress things continue to go south
- If you put those combinations together they didn't meet the screening criteria

- **In terms of waiting until 2041 and doing nothing – can you explain the process of eliminating 2041 as an option?**
  - I will refer you to a report that the government did
  - I remember that in one of Nalcor's responses to the PUB – an answer given by Nalcor that was comprehensive
  - They talked about security of supply and uncertainty etc.
  - Showed a difference favouring going ahead
- **In terms of evaluating options did you feel political pressure in terms of decisions**
  - No
  - Absolutely not
- **When we look at DG2 and DG3 – sensitivity analysis. Can you tell me about how the analysis was performed and sensitivity was selected?**
  - Two reports I remember
  - Demand forecast – I have been looking at some of the PUB responses and I didn't see the sensitivity of demand but I assume its there
  - The CPW analysis – MHI or Navigant or both did sensitivity analysis I remember seeing a picture where the Y axis is the sensitivity and the centre was CPW
  - They did plus or minus a certain amount
  - MHI did a combination of some of those
  - I looked at it recently – but I don't remember exactly
- **When I looked so far, I see sensitivities in DG2 and there are less included in DG3. Combinations in DG2 and none in DG3?**
  - I would have to look
  - Trying to think of key changes
  - Capital costs went up
  - FLG
  - I would have to look at it - on the surface it doesn't concern me too much
- **How would you view sensitivities in the sanction decision?**
  - I would consider them
  - Help me understand your question
- **Combination of decreased fuel costs, or increase capital costs, what would you have done to digest the sensitivities?**
  - I think it would be very informative
  - Demand forecast wouldn't interest me as much– it's very difficult to take a snapshot

- Long term uncertainty
- Capital cost even though uncertain it would be a shorter timeframe it would happen sooner than that

- **CPW –different components. Base cost, escalation, interest and contingency?**
  - Correct
  - And even more factors than that
- **Do you know what the total forecasted cost at the time of sanction?**
  - $6.2B facilities capital aside from interest during construction
  - Let me rephrase
  - All those costs are in the CPW
  - When I said 6.2 I mean hard capital
  - The total could have been 7.4B or whatever
- **I am trying to get more insight into the CPW. Would strategic risk be included?**
  - An allowance? No it would not be
- **Why wouldn't it be included in identifying the lowest cost option?**
  - You can't put a firm number on strategic risk
  - It's a range of risk that may or may not occur
  - Included or not it's a probability concept based on some folks thinking of things that may or may not happen that's outside their control
  - To pick a number for a such an unknown to put into CPW just doesn't ring true for me
- **Some points in these phases strategic risk was included and then it was taken out?**
  - I can't remember it ever being included and taken out
  - The best measure of dealing with strategic risk is the sensitivity analysis
  - It's the place to handle those things
  - It shows if the project is still robust in those situations
  - It doesn't necessarily put a number on it that you can't justify
- **Do you know in terms of schedule delay - known prior to sanction? Or financial close?**
  - Projected probability of a schedule you mean?
- **At the time of financial close the delay would have caused a schedule issue?**
  - We are talking probability analysis and risk and that's one key parameter there
  - Around a P50
  - You are asking dates when this occurred but I don't think this is relevant
  - We were sticking to a December 2017 schedule
  - That's not saying we had a schedule delay
  - A critical path contractor Astaldi said they could make the schedule
  - They gave parent company guarantees
  - You can't go to them and ask to add a year or two – that's going to put the rest of the contractors behind

- The probability analysis is important – you have to take it into consideration
- If you are trying to deliver a project and drive performance
- You have to manage this
- You can't manage these things on public opinion on what's going to happen
- In retrospect what happened? – Astaldi got in trouble
- Where would they be right now
- That's some of the rationale on why we landed with the schedule

* **The DG3 quantitative risk analysis there is a P1 factor in his presentation on schedule - Page 14 (Westney portion) and the target date for the schedule would have been later had it have been a P50.**
  - There were several risk reports – I stand by what I previously stated
* **The public was made aware of the 6.2?**
  - Yes
* **Was the government aware of a different budget?**
  - No there wasn't one
  - $6.2B was sanction the government was aware of that
* **Getting a handle on the 6.2 and then the 6.5. When we look at the documents that have been provided – there was a discussion on a class 2 estimate do you remember that?**
  - Yes
  - Class 2 or class 3 estimates absolutely – that's the progression
  - Ask the question but I don't know if I can answer
* **Do you know if a class 2 estimate was prepared?**
  - I would have to check
  - I believe it was class 3 at sanction
  - It was important that the class that was used was at DG3 and where we landed on tactical contingency was important in terms of guidelines
* **P factor – when it was selected how the consideration of it be funded by the public affect the P factor?**
  - I don't link the P factor being funded by the public
  - I want equate those two concepts
  - Its apples and oranges
* **A group of projects can tolerate a lower P factor than one big one – with respect to risk. A portfolio of construction vs single how was that considered at all?**
  - You mentioned a portfolio of contractors?
* **Exxon for example they would have more than one projects going on?**
  - Yes
* **That's what I am calling a portfolio**
  - You asked if a broader portfolio would spread out the risk
  - In any situation you would

- **Oil and gas is historically what you have worked on right?**
  - We are getting into specifics
  - Not sure how this interview is being used
  - It's not uncommon to use P50 and it wouldn't be uncommon to use other P factors
  - I don't want to comment more on specifics
- **If the P factor would have been higher would the project budget be higher?**
  - Yes
- **Was there indication about the p factor to the government?**
  - Yes I would have communicated what it meant
- **How would you communicate it?**
  - Verbally for sure
  - Not sure about any document
  - I wouldn't expect the government to know
  - They did have review on their behalf
  - MHI understood that and addressed any concerns
- **Do you think the government knew that the price would be higher than 6.2?**
  - I don't think anyone knew
- **I have an email from Jim Meany November 21st, about MWH NAL 0128941 – (reads) "I don't think any one of them are naive enough…" - I am interpreting what he is saying as is that no one is naive enough to believe the current price. This was prior to financial close**
  - You need to ask Jim
  - Just hearing you speak through it – I think the word definitely is important here
  - I often said can I definitely say this will be 6.2 and the answer is always no
  - When I hear you say that I can see Jim reflecting that concept
- **You brought up John Holman (Validation estimating) – did you see John's report?**
  - No not that I recall
- **You would have been briefed by the project team on a report like John's?**
  - Possibly
  - I would ask clarifying questions
  - Might review the report but might be satisfied that they covered it off
- **This report has a comment "… one of the best mega project estimates that this reviewer has seen…"do you remember that?**
  - No not particularly
- **That was a comment from John Holman's folder. Operating and maintenance costs were estimated at 34m and recently increased – do you know anything about operating and maintenance?**
  - I will tell you what I know
  - Determining operating costs was a similar process

- Right people and right expertise
- My expectation was that NL hydro would operate the assets – we would incorporate those assets in
- If Nalcor had a suite of Upper Churchill and Bay D'spoir
- Several other significant Hydro projects and significant transmission
- We were adding in another plant and a DC line
- In that context I asked our senior operation people to determine costs – they had 40 years' experience
- Satisfied me that they knew what was happening
- Bob Barnes - senior operating guy would be involved
- Subsequent to my departure – I don't have the facts
- They have apparently separated Muskrat and transmission into separate companies
- They seem to have created a whole duplicate organization to manage Muskrat Falls that is not Nalcor
- That's as much as I know
- It seems like they are creating human resources in this new entity as well as Nalcor
- If that's the case its nuts
- That would clearly define a jump in operating costs
- In any big organization you will find contractual arrangements to handle all of that
- You would put your operating costs under an umbrella of experience
- That's as much as I know

- **Strategic risk – kept out of the budget, CPW, and out of the estimate. It's almost management reserve?**
  - I'd like to refer to it in another way
  - Once you get into management reserve there is all kinds of terminology
  - If these risks happened and were not mitigated
  - You would need to make sure you could fund it
  - As far as the semantics – I have seen that go on for a long time
  - That's the concept of how we ensured the project wouldn't be in danger if certain things occurred
- **IE –what reliance does Nalcor put into the IE?**
  - The Independent engineer is there for the federal government or the Province to rely on
- When you talked about external experts – you said the IE a few times
  - I found it helpful because if the IE had a problem whether he told me or not, it was going to be reported to Canada
  - I would hear about it and be able to fix anything needed
  - A very useful check and balance
  - He was continuously involved in the guts of everything
  - Very helpful for me
- **When I have looked at the IE reports – we were given a lot of documents. In one it identified a draft report. In the November 15, 2013 there is a reference the IE makes to contingency and risk. It says that the risk is double to quadruple. This didn't make it into the final report. Do you know why?**

- I don't know
- I don't recollect seeing a draft

- **In that draft there is discussion about Astaldi that the IE personally experienced or found out about – was that communicated to you?**
  - Not that I can recollect
- **The IE report is a must to get financial close is that right?**
  - That feels right yes
  - It would have to be
  - I couldn't point to a clause but it seems obvious
- **Who setting timelines in terms of when things are going to end, financial close, sanction, etc.?**
  - Timelines for sanction would have to be what needs to be completed for sanction
  - Sanction would be a function of completing those things
- **Did you consider the schedule aggressive during sanction?**
  - Yes
- **What did you do as a result?**
  - For the reasons I mentioned with Astaldi and what not – it was up to the project team to manage and execute the schedule
- **We have been hearing that the timeline was underestimated from the beginning. What are your thoughts?**
  - We have the risk analysis, dates, critical path contractor committing to a certain date
  - Parent company guarantees
  - It was clear that it was an aggressive schedule
  - It was decided to stick with the aggressive schedule
  - It would give us a strong ability to push the schedule
  - Critical path contractor adding time on for the sake of making it easier on the non-critical path contractors
- **Astaldi bid for example – some of the bids were significantly higher than the estimate for the work package?**
  - I would have to check that but carry on with your questions
- **IE draft report 2013 – in the IE draft report It states that all of the contingency has been used up – they suggested revisiting the contingency**
  - I don't remember seeing the report but that's what happened
- **Were you aware that the contingency was used up with the early bids?**
  - Yes at some point
- **Prior to financial close it was known that Astaldi was going to be greater than the estimate?**
  - I can't recall
- **At what point is there a requirement that an estimate needs to be rebaselined (Gate process or AACEI)?**
  - I don't have that information in front of me to point to AACEI or anything
  - But I'll explain what I used

- I would like to take a break first

- **Break**
- **Page 32 of draft report 3rd paragraph from bottom. (reads) "MWH has direct working experience with Astaldi…keep work on schedule" - was this brought to your attention?**
  - I can't recall that
  - If it was it would have been useful data to have
  - If the project team had it its good – that's what we want so we can take care of it
- **(reads) "while Nalcor adopted P50 contingency…double to quadruple what is currently provided to LCP" - was this brought to your attention**
  - I can't remember this specifically
  - I knew the contingency was aggressive
  - Had to be able to fund whatever came up
  - There is nothing here that surprises me – I may not have seen it but the concepts were understood
  - That's what you do – find risks, consider them and mitigate them
  - Meant to be a positive process
- **Was the budget revisited between sanction and financial close**
  - Yes it went from $6.2B to $6.5B
- **Muskrat Falls and isolated – would the federal government approve funding without the interconnected?**
  - They would only fund provided Nova Scotia was included so it was a reasonable project
  - So no Nova Scotia, no FLG
  - Yes you are right no Muskrat Falls no FLG
  - They wanted it to connect to Nova Scotia
- **The isolated island - CPW how is that factored in?**
  - In DG2 the loan wasn't factored in
  - The interconnected would receive the benefit of the FLG and the isolated would not
  - It was estimated a $6B nominal benefit to Muskrat Falls - the FLG
- **Did anyone bring up creditworthiness with regards to Astaldi?**
  - Going to talk out loud for a min
  - Commercially they had to be vetted
  - I think they were in an acceptable range
  - They certainly wouldn't be triple A or double A but a construction company is not generally in that world
  - I know it passed the reliability test
- **It's been alleged the team was pressured to keep the estimate below $7B at the time of sanction. Were you aware of any of these discussions?**
  - I'm not sure if $6.99B to $7.1B would have made a big difference
- **At sanction?**
  - The $6.2B was the $6.2B

- **Are you aware of discussions for the estimate to be made at $7B or lower?**
  - Not at sanction
  - $6.99B – I would have said to keep it under 7 if possible if they were hovering
  - But pressure no
  - I was making sure to drive the numbers as diligently as possible
  - I went with what I was told by the project team
  - I told them to keep driving the numbers – that was constant
- **If it would be made public that it was going to be 7.4 it would hurt you with getting lower contract pricing?**
  - Yes – that's one element
  - But I wouldn't stop it from being $7.4b –I would defer going to the public until there was no commercial sensitivity
  - I never cut the number back
  - I would just hold the number until the commercial sensitivity was dealt with
- **You keep saying you had the right people – can you explain?**
  - I had several reports that commented on the quality of the team
  - SNC – great experience, engineering, hydro projects , transmission and they brought in their estimating team
  - Nalcor team – Paul Harrington has been heavily involved in projects, Lance Clarke had been involved in a lot of large oil and Gas, Ron Power had good experience
  - If you go deeper in the organization - I don't know all the fellas and gals but they had a strong team
- **SNC made up part of the integrated team?**
  - Yes a very large part
- **Went from EPCM to integrated?**
  - Yes
- **What happened?**
  - My recollection was that they were strong in engineering but on construction management side they weren't performing
  - There was a review done on it
  - There were fundamental things that weren't done
  - There was a kafuffle around SNC in other countries – there were changes which caused distraction
  - We were competing with the same people
  - We had to deal with it
  - The project team decided to integrate
  - You are going to integrate at some point anyway
  - I saw it as a time lag that would happen anyway
- **SNC – why do you think they prepared the risk report?**
  - I don't have anything to say about that
  - I didn't know it was prepared – no recollection of getting it

- SNC Lavalin were in the middle of the risk analysis in any event
- I have nothing to say really

- **Have you heard about anything like this before?**
  - No
  - The project team, SNC Lavalin and Nalcor, produced a report
  - I saw the report after it was announced because I got a copy
  - It is what it is
- **Meeting with Bob Card April 2013 – do you remember?**
  - I remember meeting with Bob Card but I don't remember the date
- **What was on the agenda?**
  - He just came into the roll and I was travelling to Montreal so I wanted to meet him CEO to CEO
- **Did you go with someone?**
  - Just myself
- **Did Bob bring up the investigation or the report?**
  - No I don't have a recollection of that
- **Break**
- **Strategic risk – if a project cost comes up that was a strategic risk and happens - am I right in saying that cost will go into project costs and recovered by the rate payers?**
  - Yes
  - Only offset if the government uses revenue to subsidize rates
  - All costs would go to the ratepayers
  - At the end of the day when the money comes in from the rate payer to give Nalcor the cash flow I showed – the government could take down rates with that
- **The government can make a policy?**
  - Yes
- **Net benefits to NL at DG3 (slide Ed provided) - when was this prepared? Was it to help your decision for DG3?**
  - Subsequent to
- **You wouldn't have used this in your decision process at sanction?**
  - Not formally no
  - I would have known and understood all the ins and outs
  - This wasn't put together until after that
  - The idea people would understand the difference in buying and renting
  - As far as having this kind of presentation and these numbers - no it wasn't before sanction
- **I am interested in hearing your thoughts on the Maritime link – I know we cut that off before**
  - We touched on this a little
  - How the information flow goes – we will walk through that

- Keep the Board aware of what was going on – I didn't sit on information
- Ensure the process and people, checks and balances – with no outside influence
- Utilized the data received – didn't change it
- Leave room for the folks to come up with the right information
- Only provide numbers when they are finalized
- Reservoir clearing from my perspective going to be $2B – you don't publically put that into an estimate
- You have to wait to see what it's going to be first
- Commercial sensitivity is prioritized over public knowledge
- After the facts are known and commercial sensitivity is not an issue
- The federal government recognized the commercial sensitivity as well – they wanted Nalcor to fund any defined costs overruns early
- They understood that that wasn't the sensible thing to do (commercially sensitive) or make sure you had a final number before you did that
- Outline mitigation process
- I was eventually informed that cost and schedule would be impacted
- I made the board and government aware of everything
- AGM – I have often said we had issues with this and that but nothing to jeopardize the project
- Once the commercial sensitivity was lifted everyone could become aware
- As soon as possible after that it would be publically announced

- **If you were in a situation where you though there would be a half Billion added and it was commercially sensitive the Province wouldn't know but the board and the government would?**
  - Yes
  - I always let them knew what I knew
  - I would keep the board and government informed
- **Board of directors – was there a key contact?**
  - Chairmen would be the key contact
  - Ad hoc meetings as well
  - Phone calls
- **Mr. Styles at the time?**
  - Yes
  - Then it was Ken Marshall
  - You may know a lot of this
  - I have heard so much untrue things about this
  - Some statements say we are giving NS power for free
  - Nothing could be further from the truth
  - In exchange for 1TWhr of power a year what do we get from Emera
  - They are building the link

- Their ratepayers are absorbing the costs- so we don't pay anything
- To move that 1TW of power it takes about 170MW on a 500MW line -16 hours a day
- Whatever is not being used belongs to us – we own it
- In exchange for 1TWhr for 35 years we get a 330MW line that we get to use for free for 16 hours a day and 500MW for the other 8 hours a day
- In essence they built us a 330MW line for a TW of power
- You give someone your Chevy pickup and you give him your ford pickup – it's like someone says you got a Chevy for free – there is an exchange in value
- We negotiated that we had the right to flow through Nova Scotia – only paying a tariff if we do so
- As opposed to Quebec where we have to pay a tariff anyway
- For 8mnth a year is the only time we have power flow
- In exchange for some of that we gave Emera an opportunity to invest in the LIL
- We still retain the rights to the link
- But there was an exchange in value
- Nalcor has the right to invest in any future investments with Emera

- **So for the LIL 1TW = approximately 20%?**
  - Yes
- **Mepco have the grandfathered rights and in exchange Emera could have an investment in LIL?**
  - That's right
  - Straight exchange
  - That was for 1TWh – we did other arrangements
  - The reason we wanted it to flow through
  - We didn't want another Quebec situation where they could hold us hostage
  - Puts us on equal ground for negotiation for excess power
  - When I say excess power there could be two meanings – we have the option to buy if we have the power but if we didn't it was ok. It was an average over 35-40 years
  - They gave us Boston prices
  - If we had to flow through Boston we would have to pay tariffs all the way
  - If they had to buy from Boston to satisfy their needs they would also have to pay tariffs
  - The deal we did we both brought in Boston Mass prices and didn't have the tariffs
  - We both win
  - It's a high price compared to what we could have gotten
  - If we got a high price elsewhere we would take it
  - Allowed us to be able to maximize the price
- **Is this the energy access agreement?**
  - Yes
- **In your view the energy access agreement wouldn't create any risk?**

- Yes
- It would help us because it gives a portion of the 3B dollars in excess value and it could be applied to the rates

- **You offer it up if you have the excess power and they have a choice to buy it or not. If not you follow the transmission line through New Brunswick to find someone in the United States to buy it?**
  - Yes
  - Or go through our access in Quebec
  - There are a lot of misconceptions out there
- **During your tenure at any point where you asked to do anything that made you feel uncomfortable?**
- *Legal – what time frame*
- **From when you started until you left**
  - Up until the government change no
  - Subsequent to that yes
- **After the current government came into power in 2015?**
  - Yes
  - Commercial sensitivity
- *Legal – it is confidential but in this case its okay*
  - So the government changed and at that point there was an interference
  - Nalcor was assigned to develop the project and lead the development
  - When the government changed we were in negotiations with Astaldi we were in a good place and we had a good contract
  - Had good leverage – I had a range in my mind I thought we could do it with
  - Went to see Premier Ball in December, and we informed him
  - The cost implication was the right thing to do – went through with some detail
  - He gave me the thumbs up
  - Continued with the negotiations
  - We would meet again and again
  - Thought we were going to come to a decision soon
  - They told me to stand down
  - We were starting to come to final numbers and I had to walk out and stop all proceedings
  - At that point Astaldi said how about this – that was closer to what we were thinking
  - That shut negotiations down for a significant period of time
  - We missed out on a significantly lower number – not sure the amount but it was significantly lower
  - Subsequent to that communication wasn't working
  - Additional protocol with presenting the budget – undermining my role
  - I was representing the province
  - Something had to change
  - I visited the premier to try and work it out – get on the same page

- I said you can't go on like that, you're not being fair – that's going to cost the project
- He had a choice – he took the choice to relieve me
- *Legal – If you read the report they did a good job with sequencing it properly. One of the key elements was the budget speech which undermined the leadership of Nalcor. Suggesting it wasn't appropriate leadership*
- That was the end of my tenure there
- The numbers have been published since
- I had a certain philosophy and I stick to it
- After my departure there have been a lot of additional costs

- **Can you elaborate?**
  - Philosophy – you can't give commercially sensitive information
  - Shortly after I left they came out with higher numbers
  - They stated they switched to P75
  - To put that kind of number out and try to negotiate with Astaldi
  - Settled transmission claims with Valard
  - The numbers ballooned – and quickly
  - My understanding would be that the expectation would be naturally because there is lots of money available to settle up with the contractor – but I don't think that's the right approach
  - We had strong contracts, good leverage, work hard, leverage them, feed them bit by bit
  - At the end of the day you want to keep them moving
  - Whatever you give them is shared equally
  - Its tough work
  - That's the best approach to extract the value of the contractors – while being reasonably fair
  - By not having that approach it's costing a lot of money
- **If you had to ballpark what that could have cost?**
  - I felt we could have finished with $8.8B-$9B with the knowledge I had
  - That's the number I feel reasonably comfortable explaining
- **That's pre interest**
  - Yes
- **So comparing $6.2B to $8.8B to $9B**
  - Yes
- **Going from 6.2 to 8.8 what would be the story and major causes leading to that change?**
  - Rough numbers
  - Market pressures
  - However we created the atmosphere
  - Negativity around the project - therefore the bids came in higher
  - Expenditures that were made that added value added about 30% value to the project
- **What would they have been?**

- Considered enhancements that were made
- Muskrat Falls dam – they decided to extend the cement slab – that was a good decision to make
- Of that 30% maybe 10%
- The majority breaks out into two things
- Transmission related
- Remember how I mentioned we couldn't get out to test soil – that led us to having to beef up foundations which was good but it wasn't in the estimate
- Power outages – long term reliability of the line so in some cases the lines were beefed up
- That's the 3 things that would make up that 30% - rough numbers
- Contract performance issues
- Astaldi – a big piece of it
- Other productivity and abandonment issues that had to be dealt with
- That in total would make up the other third
- It would be the biggest driver of that

- *Legal – Astaldi had three or four project managers*
  - Who couldn't get the workforce off the ground
  - hired some Canadians
  - Nalcor got heavily involved
  - Started giving some of their own people – to work with them in terms of planning
  - The reason it started to turn around – well before I left the curve had changed
  - Tough to recover a slow start like that
  - They proposed the integrated cover – which was a great idea
  - They tripped on that
  - If they got the ICS in place
  - Schedule - It wouldn't have been aggressive if they were working in the winter
  - They messed up – we ended up getting to the point where it was pointless to use it
  - They had the tube collapse as well
  - No short order to Nalcor turning it around
  - Other than that – how they got so high I don't know
  - I have views but they are not fact
- **Is there anything we should have asked that we didn't?**
  - I don't think
- *Legal – we followed the list you provided – a few issues came up in David's interview surprised us as the issues were far below the CEO of 6 or 7 corporations should know. I expected a little more detail around the sanctioning process*
  - You haven't explained what you are seeking to achieve – what's the mandate
  - I am trying to be helpful

- I don't know what the purpose of this audit is

- **I can only say what the commission has released as terms of reference**
- *Legal – I think they have come out with a short report for legal*
  - Trying to understand the balance
  - The tone of the questions on things that could go wrong
  - But there is a lot of opportunities to investigate value added - so that surprised me
- **If we need to reach out again is that ok?**
  - Yes
- *Legal – We don't actually need it but we may require a subpoena - it would be purely administrative. We might be okay, but we will get back to you on that. Nothing to do with our willingness*