



COMMISSION OF INQUIRY
RESPECTING THE MUSKRAT FALLS PROJECT

Transcript | Phase 3

Volume 4

Commissioner: Honourable Justice Richard LeBlanc

Friday

19 July 2019

CLERK (Mulrooney): All rise.

This Commission of Inquiry is now open.

The Honourable Justice Richard LeBlanc
presiding as Commissioner.

Please be seated.

THE COMMISSIONER: All right.

All right, Mr. Learmonth?

MR. LEARMONTH: I have some exhibits that – not for this witness but just generally to enter, if I may do that?

It's –

THE COMMISSIONER: Okay.

MR. LEARMONTH: – P-01677, P-00881, P-02065, P-02970 and, as a confidential exhibit, C – is exhibits C-00096 to C-00114.

THE COMMISSIONER: All right, those in – those exhibits will be entered as numbered.

MR. LEARMONTH: Thank you.

THE COMMISSIONER: All right.

All right, Province of Newfoundland and Labrador.

MR. LEAMON: No questions, Commissioner. Thank you.

THE COMMISSIONER: Okay.

Concerned Citizens Coalition.

MR. HISCOCK: Good morning, Mr. Goulding. It's Will Hiscock. I'm here on behalf of the Concerned Citizens Coalition. That's a group of individuals, citizens of the province who were concerned with this project in the early stages, vocal critics.

I have a couple of questions for you and they are entirely on your sunk costs paper, and so that's the area that I'd like to cover with you today.

And I guess the first set of questions is on your stop-go analysis, or the stop-go analysis if we want to call it that. I'm wondering, would it have been possible for the Government of Newfoundland and Labrador and Nalcor to have done a basic stop-go analysis, say, three years after the project had been sanctioned?

MR. GOULDING: Yes.

MR. HISCOCK: Okay.

And did the Government of Newfoundland and Labrador or Nalcor do their homework and assess the – and quantify, sorry, their alternatives to confirm that they had to complete the project as they said that they had to do?

MR. GOULDING: So, I can't speak to all of the work that may or may not have been done at the time. All I can say is that analysis could have been done earlier with regards to a stop-go decision.

MR. HISCOCK: In the analysis that you – did you have a chance to view any of their work in terms of that analysis that they may have done?

MR. GOULDING: So, I haven't had access to all of the documents associated with their decision-making.

MR. HISCOCK: Okay.

So, it was possible to do it earlier – to do that analysis.

Do you believe that they ought to have done an analysis of the stop-go way – should we cease this project? And at what point do you think that that ought to have been or should that have been on a continuous basis?

MR. GOULDING: So, in my opinion, at the point at which – I'm speaking generally – if you have a project and you've done the economic analysis based on a certain set of costs, when you see that those costs are becoming materially different, it's worthwhile to stop and think and say: Does this project still make sense?

MR. HISCOCK: Were you puzzled that there was no evidence that that had been – that those issues had been reviewed?

MR. GOULDING: I think it's surprising that there is not a robust public record of such a decision or such a thought process taking place. I can't speak to what happened in private, you know, in the internal deliberations of the management. All I can say is that one can presume that as projected costs increased, there were or should have been discussions about the continued viability of the project.

MR. HISCOCK: Okay.

And it was Stan Marshall's view that the project was beyond the point of no return.

Should – I mean, the evidence that he may have had in his possession may have been enough to make that determination –

MR. GOULDING: Mm-hmm.

MR. HISCOCK: – but should his opinion alone have been enough to make that determination?

MR. GOULDING: Sorry, can you repeat the question? Just the beginning of the question?

MR. HISCOCK: Yes. Okay.

So, it's my understanding that it was Stan Marshall's opinion that, when he took over, it was beyond the point of no return and they had to carry on.

MR. GOULDING: Yes.

MR. HISCOCK: He might have had evidence that we don't have and a base – you know, an analysis that we don't have to base that decision on.

But, excluding the possibility that he may have had evidence that we don't have, his opinion alone, would that have been enough to ground that decision?

THE COMMISSIONER: Witness, do you know who Stan Marshall is, first of all?

MR. GOULDING: I'm inferring that he is the replacement for Ed Martin.

THE COMMISSIONER: Correct. So he's –

MR. HISCOCK: Okay. I apologize. Yes, I –

MR. SIMMONS: Commissioner, if I might, I think there's more evidence than that it was Mr. Marshall's opinion alone. In fact, there was a memorandum prepared and submitted to government on that very issue at that time.

THE COMMISSIONER: Right.

MR. LEARMONTH: I'll just add that there was a revue conducted by government according to Premier Ball and, I believe, Ms. Coady. It's in their documents, so I agree with Mr. Simmons that the evidence does not indicate that this was a decision that was made solely by Stan Marshall.

THE COMMISSIONER: Mm-hmm. Okay.

Well, first of all, I would say on behalf of Mr. Hiscock, that his question was premised with an 'if'. So, I mean, if he – if it was only on the opinion of Mr. Marshall, my biggest concern was whether or not the witness knew who Mr. Marshall was, to be quite honest. But –

MR. HISCOCK: I apologize. I had made that assumption. I think as we get through this Inquiry –

THE COMMISSIONER: Yeah, so –

MR. HISCOCK: – we assume certain things.

THE COMMISSIONER: – based upon what you just heard, I mean, you're putting a hypothetical to the witness, which is fine.

MR. HISCOCK: Yes. No, I'm happy to rephrase it, given the –

THE COMMISSIONER: Right.

MR. HISCOCK: – what's been suggested there.

Were you aware of those analysis and did you see any evidence that Nalcor's decision was based on that? Or had they – had that determination that the stop-go point had been passed, was that an all right – something Nalcor had already made its mind up on by the time

these 2016, say, and changeover in government and management, the CEO.

MR. GOULDING: So I had not had the opportunity to review those particular documents. That was not part of my scope.

MR. HISCOCK: Okay.

I'd like to ask you about the role of the Government of Canada next. Would you expect the premier – that the premier should have formally requested discussions with Canada to review alternatives?

MR. GOULDING: I think that it is sensible to ask questions when you're faced with challenges and that the first principal of negotiation is to start asking questions to see what's possible.

MR. HISCOCK: Because the worst case scenario is that Canada would've said no and at least the premier would've been able to report back and say that you tried to open up negotiations but the feds had refused.

MR. GOULDING: Yes.

MR. HISCOCK: Okay.

I'd like to ask you next about the role of Emera and the UARB. The Emera commitment for the Maritime Link was a \$1.5 billion liability for Newfoundland and Labrador. Was Newfoundland's commitment to Emera a key complicating factor in the stop-go analysis?

MR. GOULDING: It would've been a consideration. I can't speak to whether it actually was a key factor in their analysis; all I can say is that – in a project with the complexities that this project has – that would certainly have been one of the considerations.

MR. HISCOCK: It would've been one of your – would it have been a chief consideration had you been doing that stop-go analysis?

MR. GOULDING: So in any stop-go analysis, you need to determine what are the ongoing obligations. And as you look at the cost and benefits of stopping, you need to add up all of the costs of ceasing the project relative to the benefits. And so looking at a key contractual

component and determining what the liabilities would be in the event of a stop, would've been part of the analysis had I been doing it.

MR. HISCOCK: Okay.

And I think I should probably backtrack just a little bit to clarify this term, stop-go. What we're talking about, if I understand correctly and I'd like you to confirm, is an analysis of at what point, in this case Nalcor and the Government of Newfoundland and Labrador, would've been financially better off simply to have cut their losses and stopped the project, that that would actually result in a savings despite the money that had been sent – spent; that those sunk costs were gone anyways, but we would've saved money by simply stopping at a certain point.

MR. GOULDING: Correct. I agree with your definition.

MR. HISCOCK: Okay. And there's a point after – anytime after that, there's a certain line in the sand effectively, after which the cheapest option is to carry on even if it's a non-profitable project to minimize losses.

MR. GOULDING: Correct.

MR. HISCOCK: Okay.

My client suggests that by excluding Emera from the overruns and other project risks, Nalcor prevented itself from finding better solutions. The Emera deal was a millstone around their necks and CF(L)Co millstone was imaginary. But this one was a real millstone around our necks in terms of the Emera deal. Do you agree with that analysis?

MR. GOULDING: So, I'm not sure that I would agree with the more colourful characterization of it as a millstone. I think that there are arrangements that make sense when you start a project that may appear different in retrospect the further along that you get. That doesn't mean that some of those arrangements weren't sensible at the time.

MR. HISCOCK: Mm-hmm.

MR. GOULDING: And so I would instead characterize the agreement as a constraint on

future decision-making, when I referred to adding up the costs as you think about your stop-go analysis. That would be one of the buckets of cost, or challenges or things that would need to be addressed as you make the determination as to whether to continue with the project.

MR. HISCOCK: And planning your progress of a project, it would, I assume, be financially prudent, good management to defer any of those kind of commitments that you can to push that timeline out on terms of a stop-go analysis, so that you have more time to be able to say hold on, and still be in a positive position – that in, say a private sector arrangement, you'd want to keep it so that you could stop with minimal costs.

MR. GOULDING: There's always trade-offs to optionality –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – so the question of how far can you defer the point of no return, may come with some challenges with regards to the way in which the project is staged, being able to retain contractors; so it's not cost-free to maintain that option; and while some degree of additional cost to maintain that optionality is reasonable; it's not – that doesn't go to infinity.

MR. HISCOCK: Okay.

MR. GOULDING: So, every project has to assess, okay, you know, how long am I going to stay on the dock and when am I going to jump into the canoe. Right, so...

MR. HISCOCK: Okay.

I'd like to ask you a little about some comparisons amongst projects. I'm wondering what it is about Site C and Keeyask, apart from timing, that led you to reach a different conclusion than the one you reached regarding Muskrat Falls.

MR. GOULDING: I think that the driving factor really is the amount remaining to be spent. So, and you can relate that to timing but the question is if you're at the beginning, right, you've only got, let's say, 25 per cent sunk, you

still got 75 per cent of your cost to go, your revenue curve is declining, your demand is dropping off – that becomes a situation in which it's more likely that it's going to be more beneficial to stop the project than to continue.

But once you reach a point – and I'm speaking hypothetically here, not with regards to any of the three projects assessed in this analysis – but once you reach probably somewhere in the 75 to 80 per cent range of completion, it becomes – the remaining costs are small, smaller than what it would cost you to build a replacement –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – of some generic, you know, combination wind storage or whatever. And so at that point, it becomes more sensible to continue than to cancel. Another attribute to consider is the changing dynamics of regional power markets. The New England export market tends to be one of the more robust in terms of pricing – even though prices are substantially depressed from where they would have been five years ago – but those prices are certainly higher than the export markets into which Keeyask and Site C would be exporting directly or indirectly to.

MR. HISCOCK: Okay.

Could you compare the magnitude of the financial support given by provincial governments to each of those three projects?

MR. GOULDING: I don't have that off the top of my head, no.

MR. HISCOCK: Okay.

Perhaps you could explain what role the provincial Crown corporations in BC and Manitoba played in the project management – do you have an understanding of that for Site C and Keeyask?

MR. GOULDING: I wouldn't want to comment in detail without reviewing my notes on that.

MR. HISCOCK: Do we know how the owners and the management costs compare amongst those three projects?

MR. GOULDING: Just a question for clarification – you’re asking how do the cost overruns compare –

MR. HISCOCK: Yeah.

MR. GOULDING: – or – I’d have to look that up to determine the relative level of cost overruns.

MR. HISCOCK: Okay.

How would you compare the oversight of each of the three – in each of those three provinces – each of these three projects?

MR. GOULDING: I can only speak at a very, very high level –

MR. HISCOCK: Yes.

MR. GOULDING: – in other words, I didn’t sit on an oversight committee for any of these three projects. But, what I can observe is a high degree of deference across all of the provinces, to the Crown corporations in their decision-making. And, speaking broadly, these are large, complicated projects; they’re not something that the governments of the day do on a regular basis and so their ability to effectively monitor what the Crown corporations are doing is challenged.

MR. HISCOCK: Okay.

I guess I’m wondering next, in terms of your stop-go analysis, if we had separated – or if you, I guess, if you had separated the transmission and generation components of the Muskrat Falls system, say, carved off the Maritime Link as a separate project from the generation station, do you think that you would have reached the same conclusion, that it was too late to stop?

MR. GOULDING: So our concluding was just based on pure go-forward costs –

MR. HISCOCK: Yep.

MR. GOULDING: – regardless of whether they were in the transmission or in the generation portions of the project. I think it’s hard to separate the two, given the importance of the export component. So, while you can do the analysis, I’m not sure that saying, okay, should

we stop and go with the generation without considering the transmission, would be a sound practice.

MR. HISCOCK: Okay. And just to confirm, that’s not something you did when you did your stop-go analysis, it was the whole combined, you didn’t –

MR. GOULDING: That’s right.

MR. HISCOCK: – break it out, right? Okay.

In your review, was there a point – well, I guess, there’s obviously a point, but what was the point, in your mind, of no return on this project, on Muskrat Falls?

MR. GOULDING: So, we didn’t go backwards in time and say, okay, you know, you could’ve stopped it here and it would’ve been still economic to do so, but the way in which to calculate that would be – and this is only on a high level basis –

MR. HISCOCK: I understand.

MR. GOULDING: – but as a rule of thumb, what you would do is take the costs of a hypothetical replacement and back out. So, for example, let’s say that we’ve got a billion dollar project – understandably smaller than what we’re talking about here – and, at some point in time, you discover that you could replace it for \$500 million, right? If you’re already \$600 million into the billion dollar project, then you’re probably going to go ahead, right? If you’re \$400 million into the billion dollar project, then your total cost is gonna be \$900 million rather than a billion, it makes sense to cease that project.

Now, this is in an entirely frictionless world where we can instantaneously make these decisions, but on a very high level basis that’s how we would have looked at this particular question.

MR. HISCOCK: Now, again, on a high level basis, and I understand your analysis wasn’t historical, it was contemporary and, you know, as of today, are we able to stop-go kind of thing, but in your review of those materials is there a point somewhere between 2012 and 2016, in a

rough range, where you think that that stop-go may have been still at play?

MR. GOULDING: So, I think it is possible that earlier in the period that the stop-go analysis would've produced different results. I can't speak to exactly when without doing the analysis.

MR. HISCOCK: Okay.

But we are in a position where – I want to confirm that this is your understanding.

MR. GOULDING: Yes.

MR. HISCOCK: I'm not saying this is the case, but we are in a situation where an alternate project from – on the first day of the project, that stopping would have been advisable in your mind. There was a reason to do a stop-go analysis is what I'm suggesting.

MR. GOULDING: I would say that there was a reason to do a stop-go analysis. I think that it's always difficult to cast yourself back, you know, seven years and to understand what would've felt intuitive at the time with regards to future load growth and future fuel prices. That said, there were likely other points at which a stop-go analysis could have been done.

MR. HISCOCK: Okay.

In your mind, if Muskrat Falls had been constructed by private investors, do you think that there would've been more escape ramps, effectively, built into the project given its risks?

MR. GOULDING: So, again speaking generally, right?

MR. HISCOCK: Yes.

MR. GOULDING: A private-sector investor is only going to put money in up until the point at which they're confident that they're going to get a return. Now, that would've meant that – let's say that you put this project to tender, right?

MR. HISCOCK: Right.

MR. GOULDING: If you'd put it to tender and you had – and the contractual terms were such

that the entity constructing the project was going to be held to specific PPA terms consistent with whatever they agreed to at the start, right? Then that private entity would be constrained by that PPA pricing, right?

MR. HISCOCK: Yes.

MR. GOULDING: And that PPA pricing will justify a certain level of investment.

Now, what happens in reality when a large project is started is, depending on where you are on the financing, right, as the project overruns start, you start eating into your equity returns, right? And there's a large degree of inertia that occurs in a large-scale project, right? It keeps going because it is going.

MR. HISCOCK: Mm-hmm.

MR. GOULDING: And that's also the case for the private sector, but in the case of the private sector, ultimately they don't have the opportunity to unilaterally renegotiate the Power Purchase Agreement. There's certainly plenty of examples of private-sector projects where circumstances change, the private-sector entity comes back and says: I need an extra \$5, \$10 in my PPA. And the answer is either yes or no and then they make the determination about whether to continue, right?

But let's use Cape Wind as an example. And Cape Wind was a project off the coast of Massachusetts. It went through an over 10-year development cycle, and ultimately their PPA was too high, right? And so the developers lost a substantial amount of money, but the ratepayers in the state of Massachusetts were not on the hook for what, in today's world, would have been a PPA, even for the exact same thing that would've been approximately 30 to 40 per cent higher. Again, speaking at a very high level.

MR. HISCOCK: Yeah.

MR. GOULDING: So, a private-sector entity would continue investing up until the point at which the PPA no longer made financial sense. Then they either would sell the project at a loss to somebody else so that the project economics for the next person were better, or the project would cease.

MR. HISCOCK: Okay.

Did the Government of British Columbia reach the correct decision in your mind, based on the evidence and advice it received, from the BCUC?

MR. GOULDING: No.

MR. HISCOCK: Did the Government of Manitoba conduct a review of Keeyask similar to that undertaken by the Government of British Columbia on Site C?

MR. GOULDING: So, again, speaking broadly about the record, in Manitoba they conducted a needs for analysis, needs for and alternatives to – NFAT – analysis. In my opinion, they should've done that, again, at a later point in the project. The Government of Manitoba felt that there were a number of additional factors that, in their view, meant that the project should proceed, and so it has.

MR. HISCOCK: Okay.

Were the export commitments made by Site C and Keeyask as firm as those made by Muskrat Falls, and what role did those export commitments play in your review?

MR. GOULDING: So, speaking again without further review of the documents, my view is that the export commitments for Keeyask are stronger than those for Site C. I'd say stronger in terms of the contractual commitment and the –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – specificity of the relationship to the project. However, I'm – I should note that you have to separate the specifics of a contract from its economics. So, in other words, let's say that I've got a contract to sell power at \$45, right? As I continue to build my project, it becomes clear that just focusing on the incremental costs alone I'm at \$60 –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – right? Now, just because I have a contract to sell at \$45 isn't a justification to complete the project, right? In reality, the power markets are relatively liquid, particularly

as we get – move into continental North America, and you could substitute. So, to me, in terms of thinking about the stop-go analysis, the contractual arrangements themselves should not be a major determinant provided you're reasonably confident that you can replace the volumes in the market. So ...

MR. HISCOCK: And that becomes a unique problem for Newfoundland, however, right, and Muskrat Falls, because we're not part of that – without the project, we're not part of that integrated market place, correct?

MR. GOULDING: Well, I would say – let's suppose that you have energy commitments to supply a particular jurisdiction –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – that is interconnected, right, but not with you, right? Nothing prevents you from going to the State of Maine and investing in a, you know, large wind farm or simply buying a block of power over a period of time that will substitute for. I mean, ultimately you've got a number of negotiating choices: you could substitute like for like; you could come to some monetary settlement. There are usually alternatives that could be pursued. You could decide to build something on Nova Scotia, right? I mean, it's – your alternatives are not binary.

MR. HISCOCK: But those commitments are locking in escalating economic commitments, right? Like, the energy commitment may not be a reason – say, a problem in and of itself, but its knock-on effect is that you've got serious financial commitments that if the economics of the project aren't working out are going to ramp up the costs of cancelling the project, right?

MR. GOULDING: So, I think, as I'd mentioned earlier, we have this kind of stack of costs –

MR. HISCOCK: Mm-hmm.

MR. GOULDING: – right, that we take into consideration. And so, depending on how firm those commitments are, right, it's not going to matter whether I'm at 25 per cent or 75 per cent; that cost is what it is, right? And so, I would argue that you still have all the same alternatives

for dealing with that cost, whether we're at 25 per cent completion or 75 per cent completion –

MR. HISCOCK: Yep.

MR. GOULDING: – and unless there was, you know, some kind of a force majeure that you could take advantage of or some other thing that you can use to say, well, because we're at an early stage of the project, I can walk away from that – the contract language would need to allow you to do that – then the cost of meeting that commitment is going to be the same whether we're at 25 per cent or 75 per cent.

MR. HISCOCK: Have you looked at the amount or whether there was front-end loading and early contracting with Muskrat Falls? Have you looked at that in terms of the view whether Nalcor was pushing the project quickly beyond the point of no return?

MR. GOULDING: I have not reviewed the specifics of all of the contracts.

MR. HISCOCK: Okay. All right.

Was that a view that – would you have had a view one way or the other on that in terms of your review of whether we were beyond the point of no return, whether you felt that the project was pushed quickly beyond that point?

MR. GOULDING: So, we make an observation, which is not specific to Newfoundland and Labrador, that once a project reaches the final investment decision, right, all of the parties have the incentive to create facts on the ground. And so, while I'm not speaking to the specifics of what's happening in Newfoundland and Labrador, it would not be surprising to find that activities were structured in a way that front-loaded costs. That's not necessarily – it's not that people are being nefarious or, you know, unnecessary – or overly interested, right? The justification from the project-management perspective is, look, we've got to get this thing going, we want to get it done as soon as possible, and there's a set of costs that are front loaded.

But, that said, if you're getting to the point where you fear that there's a possibility that the project will be cancelled, right, you can bet that

all the contractors on the project are going to be working to accelerate their pace of work so as to impact that go-forward decision.

MR. HISCOCK: And that would be the contractors in terms of the people that Nalcor has hired to work on the project. But would it not apply equally to Nalcor in that where they're – their self interest ought to be aligned with that of the owner, which is the province; however, in reality, they are not necessarily on the same page in that Nalcor's operation, a large number of its employees, it's ongoing concern is justified by the existence of the Muskrat Falls Project. And therefore, while it may be an advantage to the government to stop that project, at some point along the way, it's gonna have serious negative implications for Nalcor, quite likely.

Would you agree that their interests aren't perfectly aligned in that case?

MR. GOULDING: So, again, without impugning the motivations of anybody that's on this particular project, speaking more broadly –

MR. HISCOCK: Yes.

MR. GOULDING: – there are always principal-agent problems in these kinds of projects. And so, yes, there is a point at which the individual self-interest of those involved in the project diverges from the interests of those that are paying for it.

However, that doesn't necessarily mean that those are – who are pursuing the project don't sincerely believe that what they're doing is the correct thing, not just for themselves or for the province. It's just that the underlying motivations may cause a degree of blindness with regards to the big picture.

MR. HISCOCK: Thank you. Those are all my questions.

THE COMMISSIONER: All right. Thank you.

Edmund Martin?

MR. CONSTANTINE: No questions, Commissioner.

THE COMMISSIONER: Kathy Dunderdale's not here.

Former Provincial Government Officials –

MR. T. WILLIAMS: No questions, Mr. Commissioner.

THE COMMISSIONER: Thank you.

Julia Mullaley, Charles Bown – not here.

Robert Thompson?

MR. COFFEY: Good morning, Sir.

MR. GOULDING: Good morning.

MR. COFFEY: My name is Bernard Coffey. I represent Robert Thompson. He is a former clerk of the Executive Council, head of the civil service, and at one point was the deputy minister of Natural Resources, okay? That's (inaudible) –

MR. GOULDING: Thank you.

MR. COFFEY: – who I represent.

In preparing your report, I take it you looked at the – our local legislation and regulations?

MR. GOULDING: Yes.

MR. COFFEY: And did you do any analysis of what the PUB's powers are under the *Electrical Power Control Act, 1994* in relation to planning for generation?

MR. GOULDING: So, I believe that what we have said was that they have some authority, but that in the case of large capital projects with – which are specifically excluded, they have little authority. So that's –

MR. COFFEY: Okay.

MR. GOULDING: – a very broad-level –

MR. COFFEY: Yes.

MR. GOULDING: – overview.

MR. COFFEY: Now, I – in looking at your report and – you know, for the Commission, and

in it, at various points, you do identify in other provinces where the responsibility and authority for planning for future generation resides.

MR. GOULDING: Yes.

MR. COFFEY: And, in fact, I think in British Columbia you say, in fact, it was with a regulatory (inaudible) body –

MR. GOULDING: Yeah.

MR. COFFEY: – given to Cabinet, and now Cabinet is thinking – BC – of giving it back to the regulatory authority.

MR. GOULDING: Yes, yes.

MR. COFFEY: I'm correct, am I?

MR. GOULDING: That's correct, yeah.

MR. COFFEY: Okay.

So were you aware that here – and if we bring up, please, Exhibit P-00087. This is a copy of the – it will come up on the screen – it's a copy of the 1994 – EPCA, 1994, which is the current legislation. See it there? If you just scroll down a little bit, please.

And I can tell you this came into force – you know, the act was passed in 1994.

MR. GOULDING: Yes.

MR. COFFEY: It came into force January 1, '96. Actually, that's when it was enacted.

If we look at page 9, please. Can we scroll down a bit, please, to section – right there, thank you – 5.2?

This is the statutory provision that allows the Lieutenant-Governor – the Cabinet, locally, to exempt a public utility from this act. And this is (inaudible) large projects – this is the power to create that large project's regulation, okay?

You'll notice down below that – because on the bottom right-hand side there are references to the legislation which – particularly, which created this particular section, 5.2, okay? You'll see it's 1999 –

MR. GOULDING: Yes.

MR. COFFEY: – and 2018.

MR. GOULDING: Yes.

MR. COFFEY: Well, in the main – and I’m not going take you through exhaustively – but in the main, 5.2 was enacted in 1999.

MR. GOULDING: Yes.

MR. COFFEY: Okay.

In other words, the sections I’m about to take you to existed and were enforced January 1, ’96, meaning before there was any such exemption power. Like, in ’96, ’97, ’98 and part of – certainly part of ’99, this exemption power did not exist.

MR. GOULDING: (Inaudible.)

MR. COFFEY: Okay.

Now, if we could go, please, to page 12. Scroll down, please. And there we are, thank you, Madam Clerk.

Section 6, the planning of future power supply, and you would’ve read this, I take it, before.

MR. GOULDING: Yes, yes.

MR. COFFEY: And you’ll see on the bottom right-hand side that was enforced – (inaudible) not enforced, it was enacted in ’94, enforced –

MR. GOULDING: Right.

MR. COFFEY: – January 1, ’96.

MR. GOULDING: Yes.

MR. COFFEY: So you understand, then, that our PUB “has the authority and the responsibility to ensure that adequate planning occurs for the future production, transmission and distribution of power in the province.” Okay?

MR. GOULDING: Yes.

MR. COFFEY: And it’s both the authority and responsibility.

MR. GOULDING: Yes.

MR. COFFEY: Hmm.

Can we go, please, to page 13? Go back up a bit. I apologize. Yes, thank you.

Section 7, which again, you’ll note, was in the original piece of this legislation, on the bottom right-hand side you’ll see the reference to ’94.

Sub 3 – 7(3): “Where the public utilities board believes that producers and retailers collectively or individually will not be able to satisfy, in accordance with the power policy set out in section 3, the current or anticipated power demands of consumers in the province, the public utilities board may inquire further into the matter.” Okay, so they’ve had that power for a long time.

Now, I’m taking you through this just to set the stage, as it were. And if we can go, please, to P-00023. And you’ll recognize this when it comes up on your screen, because you’ve referred to the exemption power. And if you’d just scroll down, please.

This is that *Labrador Hydro Project Exemption Order* from December of 2000, see that?

MR. GOULDING: Yes.

MR. COFFEY: That’s the one you’re – and your report refers to this, in fact.

MR. GOULDING: Yes.

MR. COFFEY: Okay. Now, if we could go then to, please, P-00164.

Now, this is a 36-page PDF, it’s entitled *Generation Planning Issues 2006 Update*.

And if you could just scroll down, please, a little bit, Madam Clerk. Thank you. Keep going. Just go down, just to the bottom of this page. Okay, system planning, December 2006. And go down again to the second page, to the bottom of the page. Just – again – stop right here. You’ll notice, in the middle of the bottom of the page it

says: Final. So this – all the way through this report it refers to final.

Now, if you go to page 3, please.

Commissioner, I might be – one second, please, Commissioner.

And scroll up a bit, please. No, no, up, the other way. Thank you. Just to put this up (inaudible) again. Okay, right there.

You'll see here – now, have you ever seen this report? Do you know?

MR. GOULDING: So my mandate was –

MR. COFFEY: Going forward, yeah.

MR. GOULDING: – for going forward rather than for backwards, so I have not reviewed this particular report.

MR. COFFEY: Okay. Yeah.

Well, here – and then if I could – I'll skip over some of what I was going to do in light of that, and I had understood that was the case, but ...

Just a second, please, Commissioner. Okay, just one moment.

Yes, here. Yes. Page 25, please. Scroll down, please.

Now – right there, thank you.

Paragraph 8.2, it's entitled Public Utilities Board, okay? And, you know, accepting that this is not the PUB's own publication, this is Hydro's, let me read this out to you and then I have a question for you.

“Prior to 1996, Hydro was not required to seek approval from the Board of Commissioners of Public Utilities (Board) for its capital program. With the 1996 amendments to the Hydro Corporation Act, and in the absence of a Government exemption, Hydro must seek Board approval before committing to a new generation project, whether owned or contracted. This regulatory process has yet to be initialized and is estimated to take up to six months depending on the level of interest shown and the number of

interveners requesting standing at the hearings. Based on the level of interest shown at recent Board hearings, and as expressed in the 1997 RFP, there could be significant interest in a hearing for a new generation source.”

So what I'm asking about is this: is the idea that this regulatory process has yet to be initialized and is estimated to take up to six months. And this is 10 years after – or actually a full 11 years at the end of December of 2006 after –

MR. GOULDING: Mm-hmm.

MR. COFFEY: – in January 1, '96, they acquired this authority.

MR. GOULDING: Right.

MR. COFFEY: So have you encountered, in your reviews of regulatory authorities and planning and generation regimes in Canada, any situation where a regulatory-type body, such as our PUB –

MR. GOULDING: Mm-hmm.

MR. COFFEY: – has the authority and responsibility for planning and generation but, at least to your understanding, has failed to utilize it or has not acted upon it? And I – okay, I'll let you think about it. Okay.

MR. GOULDING: Yeah. So each of the provinces is quite –

MR. COFFEY: Yeah.

MR. GOULDING: – different –

MR. COFFEY: Oh, yes.

MR. GOULDING: – and I think the challenge for regulators in Canada is they need to balance between asserting themselves and showing leadership, and, you know, it's a bit like the Federal Reserve: You maintain your independence by curtailing it strategically. And what that means is that – I'm going to speak for Ontario –

MR. COFFEY: Sure.

MR. GOULDING: – right? In my opinion, the Ontario Energy Board should have attempted to exert itself with regards to the approval of the LTEP, the Long-Term Energy Plan, with regards to a number of other government policies. Now, it did not. And, consequently, I believe that Ontario has made some poor decisions that would have benefited from a longer process.

So while, on the one hand – I believe that your question was, am I aware of any other –

MR. COFFEY: Yes.

MR. GOULDING: – jurisdictions where a regulator has had –

MR. COFFEY: Explicit authority.

MR. GOULDING: – a specific authority and has not exerted that authority? I think that my answer would be no. But it also comes with a but in the sense that I think that each of the regulators tries to manage – everybody tries to figure out, do I stay snugly within the four corners of the legislation that is granted to me, do I go outside of that or do I try to calibrate my response to what I believe is possible given my relationship with the current government?

MR. COFFEY: And looking at section 6 – and I read it to you –

MR. GOULDING: Yes.

MR. COFFEY: – it would not have involved going the outside the legislation in that context.

MR. GOULDING: I agree.

MR. COFFEY: Okay.

Thank you, Commissioner.

THE COMMISSIONER: All right, the Consumer Advocate.

MR. HOGAN: Morning.

MR. GOULDING: Good morning.

MR. HOGAN: My name is John Hogan. I'm counsel for the Consumer Advocate. I'm sure

you're familiar with the role of the Consumer Advocate.

MR. GOULDING: Yes.

MR. HOGAN: First I want to talk about energy marketing, which you spoke about yesterday.

MR. GOULDING: Yes.

MR. HOGAN: And you spoke about the fact that there could be liabilities for utilities that have marketing arms.

MR. GOULDING: Yes.

MR. HOGAN: Fair to say? That's what you said yesterday?

MR. GOULDING: Yes.

MR. HOGAN: So, I guess, specifically with regards to those liabilities, are there other ways to do energy marketing other than internally?

MR. GOULDING: Yes.

MR. HOGAN: Okay, you can – can you tell the Commissioner what those are?

MR. GOULDING: So I think the primary way – and each comes with a set of risks, but the smaller you are – there are certain fixed costs that go with risk management and compliance, and the smaller you are, the less that you're going to be able to spread those costs over a large amount of volumes. That suggests that you might want to explore having an agent, having somebody else that engages in those activities.

So that is a possibility, and then you – your basic calculation, assuming that you have power that must find an outlet, right, is, are the fixed costs that I'm going to incur by doing it myself, and also the potential learning curve, less than what it's going to cost me to pay a large organization for whom this is their primary activity to do it for me?

So you don't have to build your own energy marketing organization, but if you do hire an agent, you do at least have to have sufficient capability to provide meaningful oversight to their activities.

MR. HOGAN: Do these agencies exist?

MR. GOULDING: Yes.

MR. HOGAN: They're commonly used?

MR. GOULDING: Yes.

MR. HOGAN: Within Canada?

MR. GOULDING: Yes.

MR. HOGAN: Okay.

And I would assume your risks and your liabilities are decreased by using an agent.

MR. GOULDING: They're –

MR. HOGAN: Generally speaking.

MR. GOULDING: They're bounded, right? In other words, they're more predictable. You will have laid them out in a contract and generally speaking – although again, in any contract, if somebody else has taken on a risk, they're going to charge you for that.

MR. HOGAN: Yes.

MR. GOULDING: But –

MR. HOGAN: But you're aware of that charge, at that point in time?

MR. GOULDING: That's right.

MR. HOGAN: Yes, yeah.

MR. GOULDING: So – but your agent – if your agent screws up on compliance or your agent engages in market manipulation, then your contract with them will say: You bare the consequences. It's on your professional liability insurance. It's on your balance sheet. You know, if for some reason the US Federal Energy Regulatory Commission comes to us and says, we're going to pose a fine on you, I'm going to send the bill to the agent because you screwed up.

MR. HOGAN: And I assume the agency has already developed the expertise in this field.

MR. GOULDING: Yes.

MR. HOGAN: So we've heard some evidence this week about exporting Upper Churchill power either through Quebec, if we can reach a deal, or through newly constructed transmission lines into Nova Scotia and New Brunswick and then into the States.

MR. GOULDING: Yes.

MR. HOGAN: Did you hear that evidence earlier this week?

MR. GOULDING: I'm aware of that evidence.

MR. HOGAN: You're aware of that evidence, okay.

So I just want to talk a little bit about the cost of one versus the other in terms of transmission and the term pancaking, which has come up a little bit at this Inquiry but not –

MR. GOULDING: Yes.

MR. HOGAN: – a great detail. So could you describe the – what pancaking is and how that would be different if we go through the Quebec route or if we do our own subsea route into Nova Scotia, New Brunswick.

MR. GOULDING: Well, the term pancaking is the accumulation of multiple charges along a route. And in some cases, because those charges are all based on a set of parameters that are specific just to that segment, rather than to the entire route, you end up paying more because of the way in which the charges are calculated.

Now, I think with regards to relative costs, you need to take into account not just the tariffs but the line losses and how those would be affected.

Now, circa 2041, we may have different technologies –

MR. HOGAN: Yes.

MR. GOULDING: – that reduce line losses, so that may change the relative decisions. You have to look between your – you know, your access at certain voltages and so forth. But in general, of course, if you're able to use existing

infrastructure rather than building new, that's normally going to be a cheaper option.

MR. HOGAN: Right.

And I guess going through the Quebec route, which is right there at the US border –

MR. GOULDING: Mm-hmm.

MR. HOGAN: – there will be less pancaking costs than going through Nova Scotia, New Brunswick and then into the United States. That's –

MR. GOULDING: Yes, that's correct. I mean, again, the institutional arrangements may also change, right?

MR. HOGAN: Right.

MR. GOULDING: One of the reasons that we create a consolidated independent system operator is to get rid of pancaking, right? And so, if we saw a consolidation of system operators –

MR. HOGAN: In Canada. Yes.

MR. GOULDING: – in Canada along this route, you know, then some of those relative costs would change. But I think I still agree with your overall premise.

MR. HOGAN: Okay. Thank you.

If we could just bring up your report, please, at P-04457. Page 12.

So Mr. Coffey asked you if you've read the legislation here, and you have. He's took you through some of it.

And our legislation, the *Electrical Power Control Act*, says that it's policy that "the lowest possible cost" will be provided to ratepayers "consistent with reliable service."

And you're paraphrasing here in your report, but you use – I think it says somewhere fair cost and reasonable cost, which is –

MR. GOULDING: "... adequate access at a fair cost" is what I see.

MR. HOGAN: Not quite the same thing, reasonable – right?

So, I guess, are you aware that our legislation says lowest possible cost?

MR. GOULDING: Yes. I apologize if –

MR. HOGAN: No. Yeah. It's like I said, it's paraphrasing a little bit.

MR. GOULDING: It's just – yeah.

MR. HOGAN: But my question is, then, that phrase, lowest possible cost, can you compare that to other jurisdictions in Canada?

MR. GOULDING: There are variations on the phrase throughout the legislation. Lowest possible cost without context always worries me because one of the things that needs to be taken into account is what level of reliability you're looking for. And so lowest possible cost, in and of itself, is often a bit overly simplistic, but we don't see exactly the same words in every piece of legislation. You know, we'll see, again, the terms just and reasonable and are quite common.

I – if I were writing the legislation, I might have something that said, you know, lowest reasonable cost or something like that because lowest possible cost, you know, over the short term, I can take the cost to close to zero, but on a sustained basis over the long run, I can't do that.

MR. HOGAN: What would be the difference, in your opinion, then, of what reasonable cost would be as opposed to lowest possible cost? Because we have to look at what our legislation currently says.

MR. GOULDING: I understand that.

MR. HOGAN: Yeah.

MR. GOULDING: We're all constrained by the legislation that we have.

I think that we need to be aware over what time frame we're making that calculation. In other words, the lowest cost, you know, in the next 10 minutes versus the lowest cost over a year, over a 10-year horizon, how do we allocate those costs over the period.

I worry that lowest possible cost puts a constraint that does allow somebody to say, well, you know, it's costing you next to nothing in the current moment and therefore we should drive costs to close to zero without respect to future investment costs or to maintain the system at the level of reliability that you're required to do so. So, lowest possible cost strikes me as being quite constraining.

MR. HOGAN: How do you set that time frame then?

MR. GOULDING: Well, this is an interesting question and I believe that, given current technologies, the time frames should become shorter –

MR. HOGAN: Right.

MR. GOULDING: – in that what we're seeing is declining cost curves, we're seeing greater granularity of unit sizes so that the economies of scale, while they still exist, are likely smaller. It is now reasonably possible for an individual to have a reasonably clean generating set. It's still expensive, but it's not nearly as expensive as it would have been, you know, it would have been, you know, aside from a very dirty and inefficient genset, you know, in the 1960s, 1970s, the idea of distributed generation was really not feasible.

So, today, because we have more options and because those options are allowing us to install generation at the point of use and avoid losses, avoid transmission distribution costs, it's changing the dynamics relative to central generation. And that means that the longer the investment horizon that's needed to justify an investment, the greater the risk of stranded costs that arise.

And so for me, when we get back to this question of lowest possible cost over what period, I would probably start looking closer to the 20-year range and I think that, over time, that horizon will be shortened further, and I realize that position is at odds with some folks on the engineering side who would take a different view.

MR. HOGAN: Yeah.

So, let's talk a little bit about technology, you did speak about batteries yesterday. And can you put a cost on how much money it costs for how much storage right now in terms of battery capacity?

MR. GOULDING: So, I don't have that material in front of me right now.

MR. HOGAN: Okay.

MR. GOULDING: I would say that we did present a range of levelized costs for combined wind and storage facility, I can find that if it is useful to you here.

MR. HOGAN: Okay, maybe we can get after, I'm not going to ask you to go through 60 pages right now. Sure.

How close were you to – we see some news about Elon Musk getting to a 100 megawatt battery. How close are we to that?

MR. GOULDING: Well, I usually discount any news about Elon Musk.

MR. HOGAN: Okay.

MR. GOULDING: So, I think – and, first of all, one of the things that we need to understand about quantities is that, you know, I can get to any size battery that we need, based on just staking existing quantities, right? It's just a question of whether you want that all in a single package or you want it lined up. So, in terms of the size we can get to – 100 megawatts is not an unfeasible size of an installation today, right? In a single battery, that's a different thing.

So, when you say how close are we? I would say we can do that now, it's just a question of efficiency and cost.

MR. HOGAN: Okay. Cost will come down over time.

MR. GOULDING: Yes.

MR. HOGAN: Thank you.

Just turn quickly to conservation and demand-side management. Can you speak to how

common it is in other jurisdictions and how much it's used?

MR. GOULDING: So, most jurisdictions have some kind of conservation and demand management program. They vary wildly in terms of who is responsible, how it's paid for, whether market mechanisms are utilized, but it's common to have some kind of a conservation and demand management program.

MR. HOGAN: Is it required in any other jurisdictions?

MR. GOULDING: Yes.

MR. HOGAN: Can you say which ones, off the top of your head?

MR. GOULDING: So, Ontario in particular is going back and forth on this, but even under today's government, there's still a role for conservation demand management. So, it's quite common in US jurisdictions. The role here in Canada varies across provinces, and I don't wanna go beyond Ontario at this particular point but there are other provinces that have varying kinds of programs.

MR. HOGAN: Yeah, thank you.

And I just follow up on the question about Upper Churchill and exporting and transmission lines, what's the reasonableness of constructing 5,400 megawatts of new transmission lines going through several jurisdictions? And I'm thinking in terms of complications with permits and environmental issues and multi-jurisdictional issues that might arise.

MR. GOULDING: It's challenging. So it will inevitably take longer. And the problem with multiple jurisdictions, you know, as we've seen in US projects, is – I can speak to a project that's been trying to cross the state of Missouri now for several years, right?

MR. HOGAN: From where into Missouri, sorry? From –

MR. GOULDING: It's – I believe it's a west-to-east project, but it's a multi- –

MR. HOGAN: Right.

MR. GOULDING: – state project –

MR. HOGAN: Right.

MR. GOULDING: – is the point, right. And, so the state of Missouri has held that project up now for five years. So, I think that the more jurisdictions you cross, the greater the possibility that your project – regardless of the economics, regardless of the environmental impact – is going to hit an insurmountable hurdle.

MR. HOGAN: Insurmountable?

MR. GOULDING: Yes.

MR. HOGAN: Okay. And is – are you aware of any issues, for example, that Hydro-Québec is having getting into the US?

MR. GOULDING: I can't speak to those.

MR. HOGAN: You don't know, you're not aware of any. If –

MR. GOULDING: My colleague is –

MR. HOGAN: Okay.

MR. GOULDING: – currently engaged on Northern Pass.

MR. HOGAN: Okay. That's all the questions I have.

Thank you.

THE COMMISSIONER: All right.

Emera Inc. is not here.

Former Board Members?

And Newfoundland Power?

MR. HANDRIGAN: No questions. Thank you, Commissioner.

THE COMMISSIONER: All right.

Redirect?

MR. LEARMONTH: Yeah.

UNIDENTIFIED MALE SPEAKER:
(Inaudible.)

MR. LEARMONTH: I wanted to follow up on some questions that Mr. Hogan put to you about this agency for trading.

MR. GOULDING: Yes.

MR. LEARMONTH: Just so the public will know, can you explain how an agency-client relationship would look like? I take it – I take it, generally, that a utility would hire an expert agent to do its energy trading rather than do it itself?

MR. GOULDING: Yes.

MR. LEARMONTH: Is that the basic –

MR. GOULDING: Yes.

MR. LEARMONTH: – so it's the same – is it the same thing, generally, as some – an investor, instead of investing on the stock market by himself or herself –

MR. GOULDING: Mm-hmm.

MR. LEARMONTH: – goes to a broker who has experience and does the trading for that person?

MR. GOULDING: I would use the analogy of a fund manager, like a mutual fund manager –

MR. LEARMONTH: Yes.

MR. GOULDING: – so, taking, you know – if you choose not to invest in, you know, Canadian real estate directly, you could go and buy an exchange-traded fund of real estate, you could buy a mutual fund –

MR. LEARMONTH: Right.

MR. GOULDING: – where it would all be professionally managed and you don't have to do it yourself.

MR. LEARMONTH: Right. And you pay a fee for that, obviously?

MR. GOULDING: Yes.

MR. LEARMONTH: And is trading in energy a high-risk endeavor or is it in a medium-risk, low-risk – can you comment on that?

MR. GOULDING: So, we can isolate two factors, right? Any kind of trading can be extremely risky depending on how much leverage you add to it. So, while on the one hand we can say that, yes, electricity is among the more volatile commodities, right, so, we have everything from negative pricing – so prices can range from negative \$50 per megawatt hour up to the price caps which can be as high as \$2,000 per megawatt hour, and it can do it in the course of a year.

That volatility in and of itself doesn't suggest risk. What causes risk is if I sold power to a client at \$25, failed the hedge, and then I'm short during a period when prices are at \$2,000, right? And so, as a trader, it takes judgment to manage risk and the only – so if I'm doing it for myself, right, I'm going to have to design a risk management profile that's consistent with the assets that I have, right?

Whereas somebody that's working for an electricity trading firm has done that across, you know, hundreds – possibly thousands of assets, right, and not only understands the risks better, but in their own portfolio will be able to offset them in ways that somebody that has a single asset will not be able to do or would incur great cost.

MR. LEARMONTH: Yes. And, I take it that if a utility does retain such an agency, that there would be a discussion at the beginning of the relationship, as to the tolerance for risk.

MR. GOULDING: Yes.

MR. LEARMONTH: In other words, so one utility might choose a very conservative approach where everything –

MR. GOULDING: Yes.

MR. LEARMONTH: – is hedged and so on, thereby, reducing the opportunity for large profits –

MR. GOULDING: Yes.

MR. LEARMONTH: – or, yeah, whereas someone else might – some other utility may retain on the basis that they want a moderate or a high level of risk.

Is that the type of discussions that a utility would have when retaining an agency?

MR. GOULDING: Yes.

MR. LEARMONTH: It is.

And is – we know of the demise of Enron.

MR. GOULDING: Yes.

MR. LEARMONTH: Was a cause of the demise of Enron losses in energy-trading contracts?

MR. GOULDING: The cause of the demise of Enron was not so much energy trading as it was the creation of a set of off-books accounting structures that hid losses in other areas.

The energy trading in of itself was something that Enron helped to innovate. And so, Enron was primary an accounting fraud, not a trading blow-up.

MR. LEARMONTH: All right. Thank you.

Those are my questions.

MR. GOULDING: Okay.

MR. LEARMONTH: Thank you very much.

THE COMMISSIONER: So, just on that particular point, we've heard evidence here at the Commission – there was evidence before the Commission that one of the things that Nalcor has been doing is to set up a marketing arm dealing with, I guess, initially, the recall power, and as well, now – eventually, with Muskrat Falls and then in 20 years time, potentially, with Churchill Falls.

So, I guess one way to look at whether you do it by way of an agent or, alternatively, you do it yourself would be to look at what it is you're actually managing and what your potential exports and marketing activities might be.

MR. GOULDING: Yes.

THE COMMISSIONER: So, let's just assume that we have – I'm not sure how much of this you're aware of, but let's just assume you have, say, 300 megawatts of power coming from Churchill Falls that we have the right to market and nothing else.

MR. GOULDING: Mmm.

THE COMMISSIONER: Is that sufficient to – in the normal case for a utility to say we're going to set up our own marketing arm?

MR. GOULDING: So, it's on the small side, so we can distinguish where you are today versus where you might be in 20 years.

THE COMMISSIONER: Right. Well, I'm going to go there.

MR. GOULDING: Right, yeah. Okay.

So, just taking the 300 megawatts, in and of itself, that is on the small side. We recently ran a process for a government entity to employ an agency in a similar circumstance for around that size. And in that RFP, there were multiple responses. So there was an interest among agents in serving as the party that offered all the power in from that particular portfolio. So to me, 300 megawatts is quite small relative to the infrastructure that you need to put in place to manage the risk.

THE COMMISSIONER: Okay.

So let's take this a little step further. Now we have a utility that recognizes that in a couple of years, it's going to have, I don't know, maybe 400 or 500 additional megawatts available to trade.

MR. GOULDING: Mm-hmm.

THE COMMISSIONER: And so in preparation of that, it's tempting to get a marketing arm established in order to get one known in the market and also to get expertise and experience in trading. What would your comment be, or are you – do you feel you're able to comment on the benefit of that or the disadvantage of that?

MR. GOULDING: So I think it all depends on, you know, what value you place on autonomy and what you're willing to give up. And so, to me, 300 megawatts is small. As you approach a thousand megawatts, you start to get to the point where you might be able to justify having a bit of a trading floor.

Now, the other thing to bear in mind, of course, is that depending on the size of your position, right, you could still enter into some kind of a long-term agreement with an offtaker at a particular price. And at that point then, you would likely only have the residual, right? Unless your contract was for an as-available quantity, right? So the offtaker says: I understand that your quantity maybe go up and down. It's a resource that is dependent upon hydrology. It's dependent on your storage, dependent on a whole host of other things.

So even if you had a thousand megawatts, you could say, okay, well, I'm going to enter into a contract with entity X. They're going to pay me a certain amount per megawatt hour for the next 10 years. The infrastructure required to administer that contract is different than what's required to administer, let's say, a 24-hour trading floor and compliance and a series of, you know, short- and long-term trading strategies around that thousand megawatts.

So the choice isn't, you know, binary in the sense that you either go with an agency or establish your own trading floor. You could also have a strategy where you said, look, we're not going to do trading if you define that as five-minute increments, right? What we're going to do is we might set a policy that says we're going to enter into – we're going to break it up – I'm just giving a hypothetical here, right – but we're going to break this up into thirds. We're going to do one five-year contract, one 10-year contract, one 20-year contract. And then it's really a matter of contract administration, not of trading.

So you – there is, I think, a middle point, if you will, between outsourcing, building a trading shop – on either ends of the spectrum – and then this contracting strategy in the middle.

THE COMMISSIONER: Okay. So – just to take it another step farther – so we're now into 2021. We have Muskrat Falls online and we're

20 years away from Churchill Falls. And my understanding right at the moment is that the bulk of the power of Churchill Falls goes to Quebec and it's – and they have their own marketing arm that deals with that power.

So if you were looking – so let's just assume for a moment that you didn't have a marketing arm. When would you be – knowing that Churchill Falls is coming –

MR. GOULDING: Mmm.

THE COMMISSIONER: – when would you start to dip your toe in the water with regards to getting yourself ready to market what could be a significant amount of electricity?

MR. GOULDING: I would probably start five years in advance, spend two years on a Strategist exploration and begin staffing two to three years in advance. That's what I would do.

THE COMMISSIONER: All right, good. Thank you.

I want to take you to a question that was put to you by Mr. Hiscock on behalf of the Concerned Citizens Coalition. This is in tab 2 of your book at page 7. There's a reference in there that – to the fact that for both Site C and for Keeyask, there was actually an estimated cancellation cost that was determined, whereas when you did your research on Muskrat Falls, you weren't able to find that. So you assumed that – based upon what Site C's costs would be and what the Keeyask cost would be, you assumed an amount of \$1.47 billion, correct?

MR. GOULDING: Correct, yes.

THE COMMISSIONER: Okay.

So in Site C and in Keeyask, was there any form of completion guarantee that was in place that bound the government of either British Columbia or Manitoba? Or even the utility?

MR. GOULDING: So I'm not aware of any completion guarantees to third parties in those circumstances. If there were, because we took the cancellation costs from their own estimates, they would have been included – the cost of

dealing with such a completion guarantee would have been included in those costs.

THE COMMISSIONER: All right. But to your knowledge there were – there was none.

MR. GOULDING: No.

THE COMMISSIONER: So with Muskrat Falls – like, to me it's the devil if you do, the devil if you don't. For Muskrat Falls, the financial terms of the agreement basically put the province in a situation where you either build it or, if you don't build it, it gives Canada the right to step in and build it and charge it to you. There was also agreements with Emera to – for the provision of the supply of power to them to pay for the Maritime Link. Like, it seems to me the circumstances related to the issue of possible cancellation were far different or appear to be far different based upon what I read in your paper for Site C and for Keeyask than it would have been for Muskrat Falls.

MR. GOULDING: I have no doubt that the circumstances were different. The only observation that I would make is that at some level, everything is subject to negotiation. And so our starting point in doing an analysis has to be, you know, what's been published and the agreements, just like the agreements that you mentioned. But, I would also note that if you went through the analysis and it was determined that but for those agreements it was economic to cancel, then that would suggest that one would want to focus one's attention on the constraining factors to see whether they really are unmovable. So ...

THE COMMISSIONER: Okay.

So, I guess what you're saying for Muskrat Falls is – what I gather what you're saying is that there should have been that sort of a stop-go analysis that was performed much earlier than what it appears it was done. I don't – I can't think of any evidence that is presently before me that I've seen that would suggest that there was any sort of analysis done to cancel or to continue with the project before 2016, at least, anyway.

So you're suggesting it should have been done earlier and that if it had been done, then you look at your options at that particular point in

time – and there might be more options early on in a project as opposed to later on.

MR. GOULDING: Correct.

THE COMMISSIONER: Right. Okay.

I'd also like to refer you now to your exhibit – your paper, 04457, page 26.

So this was the reference to the issue of the Power Advisory recommendations that were in place as a result of their report in 2015. And you talked about the fact that there's, from your – to your knowledge, there's very little progress that's been made on most of the – of these recommendations.

So I wonder who – like, you talked earlier about the PUB and overstepping its bounds or potentially trying not to overstep its bounds, politics involved or whatever – so who would be required to lead the implementation or at least the further analysis and possible implementation of these recommendations of Power Advisory? Would it be the PUB? Would it be the government?

MR. GOULDING: Yeah. So, I think it's a joint responsibility between the government and the PUB. Some of these things, you know, for example, the filing thresholds are not actually within the PUB's control. And I think we talked about that a little bit yesterday, that that's in legislation. It's a bit unusual for legislation to be that specific about – of a process. Normally, you would leave some discretion to the regulator.

So, anything that requires legislation, I would say, is clearly outside of the PUB's control. Now moving to requiring IRPs of all utilities, establishing a timely rate review process, those are things that the PUB likely has a degree of discretion on and could proceed without further direction from the government. In terms of outcome based policy direction, that's clearly on the side of the government.

In terms of whether – you know, we just talked about certain guidance to the regulator in the legislation – whether some of those terms needed to be updated or refined, the PUB could do that on its own to a certain extent, but ultimately would face the potential for challenge

if somebody felt that this was inconsistent with their guiding law. So – and I go down through this – there are some things the PUB could do on their own; there are some that are clearly within the governments responsibility. Ultimately, of course, the government could say we're doing all the things that we can do and we are directing the PUB to address item, you know, four, five and six, for example.

THE COMMISSIONER: Okay.

And one final area, I've been asking questions about oversight of costs for the purposes of a PPA. So, I've just been thinking now, as I was listening to you talk about the issue of exports. So in a PPA arrangement like we have here in the province, where there is – where the ratepayer is paying for the production of all the power, including that that's being exported.

MR. GOULDING: Mm-hmm.

THE COMMISSIONER: So would it normally be expected that the ratepayer – that that cost that the ratepayer is required to pay pursuant to the PPA, would that be expected to include the cost, for instance, for the marketing of that power? For instance, if you had a marketing (inaudible), would those costs be added into the issue – to the cost that would be passed on to the ratepayer pursuant to the PPA?

MR. GOULDING: That's an interesting question, and I think that the normal practice would be to think about to whose benefit do those costs accrue? And so, if the power is being marketed on behalf of ratepayers, and the profits flow back to ratepayers, then the cost to market it would go to the ratepayers. If the costs are going – if the benefits are going to the shareholder, then the costs of that energy marketing arm would go to the shareholder.

And, speaking at a high level, when we look at US states where you have a regulated jurisdiction and there's excess power, what would normally happen is that the ratepayers would retain the bulk of the profits from the export sales, the off-system sales, the holding company would get, you know, some small proportion of the benefit of those export sales as an incentive, and then the costs of the marketing, because the benefits flow back to the ratepayers,

would be borne largely by the ratepayers. So it really depends on who the benefits are going to, that determines how the costs are allocated.

THE COMMISSIONER: So, that suggests to me there's a bit of a Catch-22.

So, if a PPA is put into place that expects a certain cost and then there ends up to be overruns, significant –

MR. GOULDING: Mmm.

THE COMMISSIONER: – overruns, which then increases the cost ultimately to the ratepayer at the end of the day –

MR. GOULDING: Mmm.

THE COMMISSIONER: – then you put in – in place a plan whereby, you know, you're going to say, okay, X number of dollars in exports goes back to the ratepayer –

MR. GOULDING: Mm-hmm.

THE COMMISSIONER: – the utility's profits from other lines of business like oil and gas, part of those will be going back to the – to lessen the cost for the ratepayer, ultimately at the end of the day, for mitigation purposes. How do you sort of, try to figure out who's getting the benefit of what?

MR. GOULDING: Sure, and, I mean, you raise an interesting incremental question in the sense that I've been speaking specifically about an electricity trading operation.

THE COMMISSIONER: Right.

MR. GOULDING: It gets more complicated if you're building a multi-products operation, right, because at that point what you're going to be saying is, I've got a trading arm, it trades electricity, it trades oil, it may trade natural gas –

THE COMMISSIONER: Yeah –

MR. GOULDING: – it trades –

THE COMMISSIONER: – I'm not –

MR. GOULDING: – other things, yeah.

THE COMMISSIONER: I don't wanna – I don't think that's where we are, at least it's not my understanding that in Newfoundland we – Nalcor has a marketing arm that is going to be dealing with all items.

Am I right on this, or do you know, Mr. Simmons? My understanding is, is that the marketing arm that's been set up is related to electricity.

MR. SIMMONS: I can't say 100 per cent that that's –

THE COMMISSIONER: Oh, okay.

MR. SIMMONS: – correct –

THE COMMISSIONER: So maybe I –

MR. SIMMONS: – Commissioner.

THE COMMISSIONER: – better hear this answer. Then if it is multi-lines of business –

MR. GOULDING: So, at – my view on that would be that, first of all, the marketing arm is going to have to have strong accounting and cost allocation procedures in place so that you can delineate who's doing specifically electricity trading, and that the maximum amount of costs that you would allocate to the ratepayer, would be those electricity marketing costs allocated pro rata between whatever volumes were being traded on behalf of ratepayers and the volumes that are being traded on behalf of the shareholder.

UNIDENTIFIED MALE SPEAKER: Right.

MR. GOULDING: So, let's imagine that there's a 70-30 split, right, 70 per cent of the volumes are being sold on behalf of the ratepayer; then I would allocate 70 per cent of the costs of the electricity marketing to the ratepayers. But I would also suggest that the PUB would need to have the authority to review, make sure that those overall costs of power marketing were just and reasonable. And, you know, there's always challenges with regards to cost allocations.

So you say, okay, I've got four electricity traders, I'm going to allocate the cost of three of

those electricity traders to the rate base, but then how much of the back office am I going to allocate, how much of the CEO's time and so forth. You know, there'll be a standard proceeding that says, okay, we propose to do this, the regulator says it's – this appears fine, or the Consumer Advocate stands up and says, you know, these don't seem to match what we're seeing in other jurisdictions and you have that kind of discussion.

THE COMMISSIONER: All right.

It goes to my next question, so if –

MR. SIMMONS: So Commissioner, if –

THE COMMISSIONER: Yes.

MR. SIMMONS: – if it helps a little bit, I think energy marketing, as I understand it, has a role in the oil and gas sector for marketing oil and – oil interests, as well as electricity, so there's a division there. But on the electricity side, under the PPA, there's a block of power, of course, which is sold to Newfoundland and Labrador Hydro under the PPA, and if all that's not used, there's the ability for Hydro to have that energy marketed as well.

So, I think it would be the energy marketing branch that would probably be responsible for marketing that energy, as well as the block of electricity that's outside the PPA (inaudible).

THE COMMISSIONER: Okay, so another little added complexity. But in any case, it leads to my next question.

So, if we – we're looking at allocations, you would have to have some form of oversight –

MR. GOULDING: Yes.

THE COMMISSIONER: – to ensure that it's correct.

So, there's been some suggestion that, perhaps, the PUB would not be – a Public Utilities Board might not be the appropriate authority to do – provide the oversight because they would not have the necessary expertise.

What would your thinking be in that regard?

MR. GOULDING: So, a couple of thoughts. First, in a smaller jurisdiction, one needs to be careful about the proliferation of agencies and bodies. Second, the PUB, in order to regulate, doesn't need to have the skills on staff, right?

If there's an area that is not something that they're aware of, they can go out and acquire that expertise on a short-term basis, right? It wouldn't make sense for the PUB to have a full-time expert in power trading on staff. It would be much cheaper to obtain that person. And as in any industry, there's a number of, you know, retired people that have been active in power trading, or have served in a risk management role elsewhere that you could acquire for the purposes of a proceeding.

So, I don't think the fact that the PUB knows little about this topic prevents them from providing appropriate oversight, and I think that you would want to have this oversight within an independent body. So, that would be my view.

THE COMMISSIONER: Okay.

So, that's interesting because there has been some evidence that's been presented before the Commission to indicate that one of the reasons why a project like Muskrat Falls was exempted from PUB scrutiny was because they would not have – it was mostly – it was going to be used for exports –

MR. GOULDING: Mmm.

THE COMMISSIONER: – and they would not have the expertise to actually provide adequate oversight with regards to the issue of the capital cost for the project.

So, I'm assuming your – based – well, maybe I shouldn't assume anything. Maybe I should ask you, what is your thinking in that regard?

MR. GOULDING: I'm a little bit puzzled by that position in the sense that the process for overseeing capital costs is not that different whether we're talking about a 50-megawatt plant or an 850-megawatt plant, right? And so I worry sometimes that the excuses that are used to avoid the use of the regulatory proceedings are really an excuse to avoid oversight, period. Because in any particular case, right, you're

going to need to rely on experts, and part of the benefit of an open proceeding is that you may be able to hear from a series of experts, all of whom have different views but, you know, if we stood them in a circle the truth would probably be somewhere in the middle.

And regardless of whether the PUB runs that process or somebody else, you're still gonna be relying on those people and, generally speaking, regulatory bodies have experience in running processes, and in trying to assure that through the course of the proceeding sufficient evidence is presented that addresses the issues before the regulatory body. And so I don't think that there's any particular difference in what you would do. You'd get engineering reports, you get market reports, you would anticipate that other witnesses would respond to those reports.

What the PUB needs is not expertise on every possible subject under the sun, but the ability to run a process that brings forth the evidence that allows for an appropriate decision.

THE COMMISSIONER: What about the fact that – is it adequate justification to suggest that because this is considered to be export, that there's going to be, you know, that a good bit of the power is gonna be exported, that maybe a third of the power would be utilized in the province for a period of time? Is that an adequate basis to say that maybe the PUB shouldn't have oversight?

MR. GOULDING: So, I think the way that I would respond to that is that if a government holding company wishes to take the risk on the part of its shareholders, on – that affect taxpayers, right, that you're going to, in theory, earn a lot of money from this project, then that investment is really up to the Crown corporation. But if you're going to rely on ratepayers to pay a portion of it, then what the regulator should be doing is saying, okay, you're going to basically be putting to ratepayers one third of this Project at a particular PPA.

From the ratepayer's perspective, could the ratepayers go out and get a better PPA with somebody else? Or would the ratepayers be better off with some other project entirely? That doesn't prevent the Crown corporation from going and building a project for export. It just

prevents them from putting the costs or a portion of the costs to the ratepayers. So, I think that my view is that any costs that are going to appear in rate base – they're going to be passed through to customers – need to be subject to review by the regulator.

THE COMMISSIONER: Right. Thank you very much, Sir. Appreciate the – your evidence.

You know, this is a report that I'm going to be looking at fairly closely with regards to – particularly with regards to making recommendations so, I had asked yesterday about the province and Nalcor to consider responding to some of the things that they said in the paper.

And I really hope that they will take me up on that. And any other party including the Consumer Advocate, who might want to make some reference to this. Because this is a high-level paper and we don't have all of the foundational evidence for some of this – some of the things that are being said here, that I can really look to, to see if it's yay or nay.

So I would appreciate a bit of assistance in this regard and whatever, you know, whatever can be responded to with regard to what's taking place, what's being done. I asked about the issue of the marketing arm; that would be another area that would be of value to me. I would really ask that consideration be given to even just give me a point form, sort of, idea as to what's going on so that I have some knowledge, so I'm not making useless recommendation, or alternatively not making recommendations in areas that I should be.

Mr. Simmons?

MR. SIMMONS: Yes. Thank you, Commissioner. The time is obviously tight.

THE COMMISSIONER: I know.

MR. SIMMONS: Because we have one more week of Phase 3 hearings. Then we have written submissions on what'll then be 140 days of testimony to be filed on the 5th, so there are some limitations. What might be helpful is if there were particular pieces of that report or particular items that were of highest priority to

you, if you could pass that on through Commission counsel we'll –

THE COMMISSIONER: Yeah.

MR. SIMMONS: – certainly do our best to get someone to address those as opposed –

THE COMMISSIONER: Right.

MR. SIMMONS: – to trying to do a sort of a holistic analysis of the wide range of things dealt with in the report.

THE COMMISSIONER: Right, so that brings up another issue.

Sir, you can leave if you wish. Thank you very much.

MR. GOULDING: Thank you.

THE COMMISSIONER: So, it brings up another issue that I need to raise here this morning, and seeing we have some time I may as well raise it, trying to figure out what I'm going to do about this.

One of the requirements of the Terms of Reference is, is that I'm supposed to be looking at the issue of cost for the project up to the time of the report. That's very difficult to do, because once the evidence is concluded, technically that's it, I can't consider any other evidence.

So I have been getting updates of costs for the project, and as well, reviewing the estimate or the amount of 10.1 and seeing how things are lining up, and I'm gonna need to continue to do that right up to the time, I guess, I put my signature on the report. That's what I'd like to do.

So, one of my thoughts is, is that, you know, I can – technically it's not evidence if it's – if everybody doesn't see it. This is a confidential exhibit, for instance, that's coming to me, so I'm seeing what, for instance, what the contractors – I'm even – I've even reached out to contractors who out – have outstanding claims to see where they are now because two months later I need to see what's happening. So – and I am getting quite a bit of co-operation from the contractors.

So I guess my query is, is at the end of the day, for that sort of information, I'd like to be able to use that in coming to my conclusions, but I'm not sure how I can do that. I could just autocratically say I'm gonna consider it and tell everybody that I'm gonna consider it, that's one of the thoughts I had, and I'm not opposed to that, but I'd want to certainly put it out there for consideration.

And this might be another area, like, you know, to be quite frank, I'm not gonna be writing about energy regulation. That's not the first task that I'm gonna take when I write this report. So, the fact that I would get information from Nalcor or the government on what's being done with regards to some of these things that are referred to in the report, particularly like, you know, the Power Advisory recommendations, the issues of getting ready for export – things of that nature.

I don't see that as being really all that controversial if, in fact, I'm being told the truth with regards to what is being submitted, and I have no reason to believe that I won't be.

So there – I guess what I'm saying is that there are areas of evidence that are going to continue on – if I can call it evidence – that are going to continue on beyond submissions in the middle of August. And I've got to figure out how I'm going to be able to consider that, and this is based upon particularly the reference in the Terms of Reference to the cost up to the date of the report – or at least that's the way I read the Terms of Reference.

So I don't expect an answer today. If I don't get an – if I don't get any submissions, I may use the autocratic approach and let that – let the dust settle where it is. But if anybody has any suggestions or whatever, I would love to hear them so that I could consider how we can do this in a way that's as open as possible but, at the same time, allows me to do what I need to do here in response to the Terms of Reference.

So can I just leave that with you, and, you know, we can either have a chat about this in the hearing, which I think we probably should do at some point in time at the end of next week, or, you know, we can figure out what we're going to do. So just think about it and let me know your thoughts or let me know if you'd like to

express your thoughts, and then I can proceed from there.

All right, so we're finished and – for this week and we'll come back on Monday. Monday we have – I think we have Donovan Molloy – Judge Donovan Molloy –

MS. MUZYCHKA: We also have Gobhina Nagarajah and Donovan Molloy.

THE COMMISSIONER: Okay. So one of the witnesses on Monday will be speaking to the issue of a government experience, duty to document, things of that nature.

Judge Molloy initially contacted the Commission with respect to certain thoughts that he had that felt might need to be considered, and as a result of what he expressed, I decided that I would invite him to participate in this Phase of the Inquiry.

And then the other piece is I've asked one of the Commission counsel – associate counsel – to prepare some documentation on the ATIPPA – or a presentation on the ATIPPA report that was done in 2014 that talked about a number of things with regards to the ATIPPA legislation, including the duty to document. I do think that there was need for that to be presented so that not only myself but the public would understand what the – what that report speaks to. So that we're going to deal with on Monday.

Tuesday we're dealing with water management, and I'll advise as to who is being called on the water management issue on Monday, as I did before the last water management hearing. That is going to be an in camera hearing, limited with regards to the parties that are available and really restricted to the issue of the impact of the Quebec Court of Appeal decision on the issue of water management rights for Muskrat Falls.

Wednesday we have an individual coming from Norway. He's involved in an agency in Norway that deals with approval of large-scale projects in that country. He's very familiar with other processes that are in place in other parts of Europe. He's going to be speaking a bit to the issue of what they do in Quebec with regards to large projects, because they do have a process. So that is just an education piece with regards to

what other jurisdictions are doing for large-scale projects and oversight for approval, things of that nature, and accountability, transparency, things of that nature.

Thursday next week we're going to hear from a professor at Memorial who has done a bit of a study on two things. One is the issue of the culture of documentation in the provincial public service, and what he has done is he's done some interviews with 15 individuals who have been or are ADMs, DMs, deputy ministers, or directors. So he will be presenting his research in that area.

And then on Friday, we have Professor Mel Cappe who will be presenting on the issue of the role of the bureaucracy in a constitutional government, and that's the way we'll be ending off the Inquiry.

So have a good weekend, and we'll be back on Monday at 9:30.

CLERK: All rise.

This Commission of Inquiry is concluded for the day.