



## COMMISSION OF INQUIRY RESPECTING THE MUSKRAT FALLS PROJECT

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Transcript | Phase 1

Volume 20

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*Commissioner: Honourable Justice Richard LeBlanc*

Thursday

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**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, good morning.

**MS. O'BRIEN:** Good morning.

**MR. OWEN:** Good morning.

**THE COMMISSIONER:** Mr. Owen, you remain affirmed at this time.

And, Ms. O'Brien, when you're ready.

**MS. O'BRIEN:** Thank you. Two housekeeping items before I begin.

Exhibit P-00477, which we looked at yesterday, was a July 2006 contract between Mr. Owen's consulting company and Newfoundland and Labrador Hydro. This morning, Mr. Owen provided us with the signed copy of that contract. So it's not a new exhibit, Commissioner, but we have replaced the former exhibit with the signed version.

Additionally, I have a request to enter one further exhibit and that would be Exhibit P-00610.

**THE COMMISSIONER:** Okay. All right, that will be entered then as numbered.

**MS. O'BRIEN:** Thank you.

Madam Clerk, can we please go to P-00504, tab 30 of your book, Mr. Owen, page 15. And this is the report from the IPR team to the Gatekeeper as of – at DG3.

So I just want to talk a little bit, Mr. Owen, about some of the findings with respect to the EPCM contractor, SNC-Lavalin. The first bullet here is that: "The IPR Team has some concerns regarding the implementation of the Construction Management (CM) strategy. Experience suggests that 'mature' owner

organizations often find it difficult to step back into a monitoring & appraisal role, allowing the" contract manager contract "contractor (i.e., SNC Lavalin) to be both responsible for performing the work and accountable for the results."

So I know we spoke a little bit about this yesterday but I want to address a few more points with it. This was a finding very similar to one we saw at Decision Gate 2.

**MR. OWEN:** Yes, it was. Yes.

**MS. O'BRIEN:** Okay.

So can you please explain why, you know, this was still a concern for you at the Decision Gate 3 milestone?

**MR. OWEN:** Uh-huh.

When we did the Decision Gate 3, which was September 2012 –

**MS. O'BRIEN:** Yes.

**MR. OWEN:** – we had –

**MS. O'BRIEN:** And this – your report, to be clear, was August 31, 2012.

**MR. OWEN:** Yes. Yes.

**MS. O'BRIEN:** Yeah.

**MR. OWEN:** Yeah. We – in discussions and interviews that we had at that time with various personnel, we did get the clear impression that there was a lack of clarity with regard to roles and accountability. And the – some of the EPCM personnel expressed a concern that they felt that certain of the owner's team were sort of getting too much into the day-to-day aspects and therefore sort of – I won't say interfering – but getting involved with what the EPCM felt was their accountability and their role.

So that's the comment with regard to there is a tendency for owner's personnel to get involved in areas which, strictly speaking, in accordance with the contract that is in place, it is the responsibility of the contractor to do that. On the other side of that coin we did note – and I think my notes of the cold eyes review that I did in

February of 2012 spelt that out that SNC were having difficulty filling major positions.

And as I said yesterday, in order to fill that void on that vacuum, there was a tendency for the owner's people to get involved because that SNC either didn't have an individual or they had brought individuals in and that individual had gone out. I think there were certain positions where they were on the third incumbent and, therefore, the owner's team felt that they could not stand by because they had to progress the work; so you had two sides of that coin, basically, and that was the finding there.

To build off that, there were several departments that had in fact transitioned from a – into integrated teams. And this was done gradually, as the need required, to combine the integrated teams such that the project was benefiting from the collective resources. And if my memory serves me, the planning group was already integrated at that time and I believe the supply chain group was integrated to a degree at that time. And the cost estimating group, which was mentioned in my notes from February, was integrated at that time as well.

And as we know, subsequently step by step, various other departments were integrated. And I think in the Q1, Q2 of 2013, the project ultimately became, I think, right across the board in all aspects, an integrated team.

**MS. O'BRIEN:** So when you were doing this report in August of 2013 were you personally aware that Nalcor's project management team had made the decision to move from an EPCM mode of executing the contract to an integrated management team?

**MR. OWEN:** I was aware that there was steps in progress to do that. I don't believe when we did the review in August of 2012 that the final decision had been taken to integrate right across the project. My understanding is that that was – that really the final decision and the final groups were integrated in the early part of 2013. So it was well understood that this may be the objective, but it was being done step by step as they found that by integrating, it solved the problems. Another area which was mentioned, which was really quite critical, was a document control group.

**MS. O'BRIEN:** So you were aware – I'm just making sure your evidence is clear – so you were aware though by this time, August 2012 –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – that certain areas of the EPCM scope had been removed from SNC-Lavalin and taken, essentially, in-house at Nalcor in the form of an integrated management team?

**MR. OWEN:** If you want to put it that way, yes, yes. Yeah, it wasn't so much that the – I suppose you could say the scope was changed because they didn't have the construction management role. Certain groups were integrated and being led by the owner's people, yes.

**MS. O'BRIEN:** Okay.

So that would not have been consistent with the contracting strategy documents that had been prepared and approved?

**MR. OWEN:** That's true.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** That was a – if I could put it – that was a mitigation process to mitigate a perceived risk that the project team had with regard to the – with regard to the capability of SNC to provide the staffing and the people that was required. I mean, it was an ongoing – it was a recorded, ongoing problem that SNC were having problems, really, staffing the project.

**MS. O'BRIEN:** Would it be fair to say that a shift from a true EPCM mode of execution to this integrated management team mode would be a significant change in the strategy for pursuing the project?

**MR. OWEN:** It is, but it's not an unusual change.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** Various projects sometimes adopt an integrated approach from day one, as we did with the Sable Offshore Energy Project in Nova Scotia. That was integrated right from day one.

A lot of projects integrate for certain phases of the project, such as the engineering and the procurement can frequently stay – or does frequently stay with the engineering contractor and then they – and then when they move into construction they put in integrated teams to oversee the construction contracts.

I mean, it is not unusual to – but it is normally done as part of the – the point you’re making – it is normally done as part of the original strategy.

**MS. O’BRIEN:** Right, okay.

**MR. OWEN:** But this really moved into this strategy because of the inability of SNC to provide the staff that was required to do the job.

**MS. O’BRIEN:** And in moving into this integrated strategy, is it fair to say that some risks that would have been on the EPCM contractor, initially, would then be moved to Nalcor because of the shift? They were de-scoping some of the EPCM work.

**MR. OWEN:** I understand what you’re saying, but in terms of construction management that is really a supply of people to manage construction contractors. The commercial aspect associated with that in terms of moving a commercial risk really doesn’t apply. I mean, the risk will be very, very similar whether the – whether Astaldi, for instance, is being managed by SNC or whether it’s being managed by an integrated team, in terms of the agreement between the owner and the EPCM.

I believe – I may be wrong, but I believe that – and maybe Nalcor could answer this question – I believe that there was no – there was not an amendment to the agreement to cover this change from – to cover the change from formal EPCM to EP integrated CM.

**MS. O’BRIEN:** I believe, there was eventually a change to the contract between Nalcor and SNC-Lavalin, but if you’re not aware of that it’s –

**MR. OWEN:** I was not aware of that.

**MS. O’BRIEN:** Okay, so we’ll have other witnesses deal with that.

**MR. OWEN:** Okay.

**MS. O’BRIEN:** Okay.

So – but when – so – but the point being, you knew that this change was happening.

**MR. OWEN:** Yes.

**MS. O’BRIEN:** It’s – when we read the DG3 report from –

**MR. OWEN:** Mm-hmm.

**MS. O’BRIEN:** – the IPR team –

**MR. OWEN:** Mm-hmm.

**MS. O’BRIEN:** – one wouldn’t know that from reading the report. And the report does not address that. It still refers to SNC-Lavalin consistently as the EPCM contractor. It does certainly talk about continuing the program effectiveness and managing the relationship.

**MR. OWEN:** Mm-hmm.

**MS. O’BRIEN:** But given that this – there was a departure here from the underlying, you know, contract strategy documents –

**MR. OWEN:** Yeah, yeah.

**MS. O’BRIEN:** – to move to a different method – and I do understand the reasons that you’ve articulated.

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** But the question is: How come that wasn’t captured in the IPR team’s report?

**MR. OWEN:** I agree it wasn’t, sort of, expressly spelled out that way. There were comments that would really support what we knew at that stage. The only answer I can give you is that, at that time, as far as I am aware, the agreement or the contract between Lower Churchill and SNC had not been formally changed.

**MS. O’BRIEN:** That’s correct. The contract was changed after the fact.

**MR. OWEN:** So we were still dealing with the contract that was in place, which was EPCM.

**MS. O'BRIEN:** Okay. And so your reason for not capturing it here, you're saying, is because the formal wasn't changed? Is that –

**MR. OWEN:** Correct.

**MS. O'BRIEN:** Okay.

Were you aware whether Nalcor had done any risk analysis or, you know, looked at what this change might mean in terms of the risk of the project?

**MR. OWEN:** I'm not aware that they did any formal risk analysis. I think it was more an assessment of department by department, whether or not the contractor – EPCM contractor had brought the appropriate people to work on the project. So I don't think – I don't believe there was a formal risk. I wasn't – I had no knowledge of that. But I would assume that by department by department they'd looked at whether or not it was adequately resourced from the EPCM or whether or not it was better to have that department moved over into an integrated team.

**MS. O'BRIEN:** Okay.

Mr. Mallam, when he testified, he did not recall whether he learned about the transition of SNC-Lavalin – whether that he learned of it after Decision Gate 3 or before.

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** Do you recall, Mr. Owen, whether this was a topic of conversation among the IPR team at the DG3 review?

**MR. OWEN:** I think it would've been a topic of conversation in terms of the – of us establishing or making that first comment. And that would've been, as I said, derived from the interviews that we did with the Lower Churchill Project team and with SNC where we certainly got the impression that there was a confusion of accountabilities and a feeling that from the owner's side, I have a contractor here who is not providing the people that we need, and from the contractor's side, the owner is getting into our

business. So that was the, sort of, behaviours that we were seeing at that time.

**MS. O'BRIEN:** Okay.

And just one last question on this. Page 13 of this document, P-00504, please.

Here – this was the slide Key Messages and where you were referring to the excellent use of the time between DG2 and DG3 that Nalcor made. And I noticed that one of those was developing and continuously improve Nalcor and SNC-Lavalin “alignment and organizational effectiveness.”

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** So this one – was one of the key messages, and I just – when one reads this, it – if during the transition from DG2 to DG3 –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – there was – and you were aware of, really, a de-scoping of some of SNC-Lavalin's work – it seems a little bit inconsistent with this finding, you know, “develop and continuously improve” – that that's one of the things that Nalcor had made “excellent use of the interval” doing. You know, makes –

**MR. OWEN:** Mmm.

**MS. O'BRIEN:** – this would make it sound like, between DG2 and DG3, there was an improvement in the relationship. But what I'm hearing you describe is – does not sound like much of an improvement. It actually sounds like it was – it had deteriorated further.

**MR. OWEN:** There was improvements but there was still work to be done. And the – I suppose the basis for that statement would be that, in June of 2012, the team-effectiveness program was kicked off, which was between DG2 and DG3.

**MS. O'BRIEN:** And so that was the program we talked about yesterday, Deloitte, that you were coordinating and you had felt that was making good progress. Is that –

**MR. OWEN:** Yes.

**MS. O'BRIEN:** – what you're saying? Okay.

**MR. OWEN:** Yeah. Yes, absolutely.

**MS. O'BRIEN:** Okay, thank you.

Yesterday we did – you already addressed a little bit as to how the report was received by management when the DG3 report was presented by the IPR team. I know you said that Mr. Martin was, you felt, certainly with respect to the scheduling issue –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – he seemed surprised, or words to that effect.

Do you recall anything else of the reaction you had when the IPR team delivered their report at DG3?

**MR. OWEN:** No, I think the reports – I think the report was well received. I certainly still have the clear – not impression, but the clear picture of the schedule aspect, which we discussed yesterday, being the major picture that I still have in my mind with regard to the report out on that afternoon to Ed Martin.

**MS. O'BRIEN:** Mr. Mallam had some memory, although he wasn't, you know, definitive –

**MR. OWEN:** Mmm.

**MS. O'BRIEN:** – in it by any means, that there may have been some suggestion that the IPR team was asked to make some of their presentation just verbally as opposed to committing certain aspects of it in writing. But, like I say, you heard his testimony on that point?

**MR. OWEN:** I heard his testimony, yes, yeah.

**MS. O'BRIEN:** Okay. Do you have any further memory or clarity –

**MR. OWEN:** I don't have –

**MS. O'BRIEN:** – to give us on that point?

**MR. OWEN:** – a clear memory of that. I – it could well be that generally we chose our words very carefully to ensure that the message was

absolutely clear to the Gatekeeper. I don't recall any instruction from the owners or the project team to that effect.

**MS. O'BRIEN:** Okay, thank you.

All right. So the report was submitted on August 31. I'm now going to take you through a series of emails, Mr. Owen. It's going to take us some time to go through these because we are going to do it in a little bit of detail. P-00505 please, Madam Clerk. At tab 31 of your book, Mr. Owen.

And I'm going to start at the bottom of the email chain here. This is an email from Paul Harrington to you, sent at – just after 5 p.m. on August 31, 2012. So this was the day that you gave your report.

Mr. Owen, can you please read this into the record?

**MR. OWEN:** Yes.

It starts by saying: "Derek

"It was most unfortunate that you used the P1 characterization of the schedule in the meeting this PM. That risk work on the schedule is dated and is in the process of being updated. Jason stated as much. We know that The probability will be less than P50 but for Ed to get the message that it has virtually no chance In such a manner has resulted in a major blow. We very recently stressed the importance with Ed of allowing the bulk excavation contract to be awarded prior to sanction and with your statement that causes him to doubt the value of making that step now. The schedule risk model is a simplified activity schedule and some work is needed and the critical path assumed earlier regarding sanction being a prerequisite to bulk excavation award is one such change that is necessary and contributed to the low probability result

"So we need to meet and get this back on track so that we are not alarming Ed on dated information and analysis.

"Pls call me Saturday or Sunday"

**MS. O'BRIEN:** Okay.

So then that was the Friday of the 31st; so on Saturday morning you wrote Mr. Harrington back, just above here, to say that you were on route to Nova Scotia for the week and that you'd call him on Monday.

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** Then – so that would be on Saturday.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** And then on Sunday you write him again and you say – can you just read your email there that you wrote him on Sunday morning?

**MR. OWEN:** Yes.

“In addition to what was already stated in the report we could add a Key Message endorsing the LCP strategy to commence the mass excavation in October/November 2012 as a schedule mitigation measure.

“Lance has the file so we need the Key Messages part back.

“Give me your number to call Monday.”

**MS. O'BRIEN:** Okay.

So at this point here, it appears that you are offering to Mr. Harrington to make a change to the IPR's final report. Is that right?

**MR. OWEN:** That's in terms of the timing for the mass excavation. Yes.

**MS. O'BRIEN:** In terms of adding a key message?

**MR. OWEN:** Adding a key message with regard to that activity.

**MS. O'BRIEN:** Okay.

Now, did you confer with the other members of the IPR team before offering to Mr. Harrington to add a key message to their final report?

**MR. OWEN:** Not at that stage. No.

Had we proceeded to draft that message then I would've then gone back to the team and said: This is the request, this is the change that I am – that we can possibly accept. And at that time I would've got the team to 'confirmance.'

**MS. O'BRIEN:** Okay. So you didn't feel that – so you felt you had the authority to at least make the suggestion that you could add the key message.

**MR. OWEN:** I felt I had the authority to make the offer. If the offer was taken up, then, I would've gone back to the team and agreed with the team with regard to the actual wording or even get their confirmation that the wording and the offer was acceptable.

**MS. O'BRIEN:** Okay.

So then in the next email here we have Mr. – sorry, I should scroll up a bit – Mr. Harrington coming back to you again on the Sunday. He's giving you some more information regarding an update to the schedule analysis –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – and the schedule risk analysis he says is going to be run again. So he's providing some additional information, saying that this means there will be a four to five month schedule reserve.

**MR. OWEN:** Hmm.

**MS. O'BRIEN:** He gives a little bit more information about LOL, so letter of intent. Would that be right?

**MR. OWEN:** Mm-hmm. Mm-hmm.

**MS. O'BRIEN:** For the SOBI, so that's the Strait of Belle Isle –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – cable. And will raise – what are PCNs?

**MR. OWEN:** Project change notices.

**MS. O'BRIEN:** Okay.

For approximately 8 million reduction which we will put into LIL contingency which will put another 2 or 3 per cent added to the existing 3.8 per cent contingency.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** So he's telling you they're gonna increase the contingency on the LIL, up from what – apparently at this point – was 3.8 per cent. And also that there's gonna be further work on creating a schedule reserve.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Is that a correct summary?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** I mean, that's what that message says, yeah.

**MS. O'BRIEN:** Okay. He also provides his number on – for Monday.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Do you – did you call him on Monday?

**MR. OWEN:** And Monday would've been – I probably did. Well, I'm almost certainly – I would've called him on Monday.

**MS. O'BRIEN:** You recall – I know there's gonna be a – we have a few emails going around now. But do –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – you recall what specifically would've been the topic of conversation –

**MR. OWEN:** I don't recall –

**MS. O'BRIEN:** – between you and Mr. Harrington on Monday?

**MR. OWEN:** – what would've been talked about there. These items here that Mr. Harrington is talking about, these are really outside of the role of the IPR. These are ongoing

actions that they – that the project team would be taking, which were not in place – or the actions had not been put in place at the time that the IPR review was undertaken.

**MS. O'BRIEN:** Okay.

Can we go to P-00506, which is tab 32 of your book?

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** And again, I'm gonna start at the bottom. Now I apologize, the way this is done here, it is a little bit hard to read.

**MR. OWEN:** Yeah, I see – yeah.

**MS. O'BRIEN:** Okay, but this is happening on the 3rd –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – which would be Monday.

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** And here's the first email in the chain, and it starts right here, it's an email from Paul Harrington to you.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Can you please read out what Mr. Harrington wrote you?

**MR. OWEN:** Yes. It starts with "please" I suppose, there – does it?

**MS. O'BRIEN:** Yes.

**MR. OWEN:** Yeah.

"Please find attached two attachments 1 Schedule reserve deck – where we explain the Nalcor position regarding how we intend to represent the schedule reserve- also note Ed Martins article in the Globe and mail today wherein he states that power will be flowing from Labrador to the Island in 2017. That is consistent with the messaging so far which will continue – we can bring power into the Island via LTA and LIL without the need for MF initially. ... We are proposing some wording for



the draft IPR report (slides 13 and 40) following our meeting later on Friday with Ed which we believe does not change the substance of the first draft and the messages it contained it simply uses language that could not be taken out of context and easily used in a negative sense. I know that was not the intent but we exist in a climate where words can be twisted and used in a manner that was not what the writer meant, So please review with Dick” – that would be Westney – “and see if we can agree on the final wording for this” – item and – “item 1 above. Regards Paul Let’s talk on Tuesday – I am heading out for a hike now”

**MS. O’BRIEN:** Okay.

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** At this point here just – Mr. Harrington is referring to the IPR – the draft IPR report. Was the report that you had presented on August 31 a draft report?

**MR. OWEN:** No.

**MS. O’BRIEN:** Okay. And we’re gonna look –

**MR. BUDDEN:** Excuse me, I never heard that answer.

**MR. OWEN:** Oh, the answer was no.

**MR. BUDDEN:** Okay, all right.

**MS. O’BRIEN:** No, it was not a draft. You had presented on –

**MR. OWEN:** As far as we were –

**MS. O’BRIEN:** – August 31 –

**MR. OWEN:** As far as we were –

**MS. O’BRIEN:** – as the final report.

**MR. OWEN:** – concerned that was not a draft.

**MS. O’BRIEN:** Okay. So Mr. Harrington has characterized it as a draft.

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** And he has attached a document to it. And just for the record the document that is – was attached by him – would be P-00507.

**MR. OWEN:** Mm-hmm.

**MS. O’BRIEN:** We don’t need to go there right now, Madam Clerk, ’cause we’re gonna look at the changes he made in some detail in a few moments, but it’s been filed as Exhibit P-00507.

Yes, actually we will look at it ’cause I’d like to just review the first page.

So the first page of this report still has it listed as a Final Report, the same date as was presented.

**MR. OWEN:** Mm-hmm.

**MS. O’BRIEN:** And it goes through – and the changes here – and we’ll go over them again in some time, but there are some wording that’s been changed to red, which I understand would’ve been the changes that Mr. Harrington was making.

**MR. OWEN:** Yes.

**MS. O’BRIEN:** Is that consistent with your understanding?

**MR. OWEN:** Yes. Yes.

**MS. O’BRIEN:** Okay, all right. We’ll come back to that in just a moment. Okay.

So if we could go back to P-00506, please? That email we were just looking at. Okay. So then we are now on the next day, so Tuesday. No, at this point – okay, so you say to him – you reply to him – if I can just get this – here’s your reply to him right here.

**MR. OWEN:** Yes.

**MS. O’BRIEN:** You say: I will review and call on Tuesday.

**MR. OWEN:** Yes.

**MS. O’BRIEN:** Okay, so you reply – you make that response on the 3rd, which is a Monday.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Okay.

Now, can we go to P-00508, please, which is at tab 34?

So here we're going to see at this tab is – this is the email that you just read out that Mr. Harrington had written to you offering to make changes to what he termed the draft IPR report.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** So that's the email we just saw.

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** And you then forward it to – so it's the same day, Monday – you then forward it to Dick Westney.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Can you please read what you wrote to Mr. Westney?

**MR. OWEN:** Yes.

"Dick,.....please see e-mail from Paul and attachments.

"My first reaction is ... the rewording of slides 13 and" – 14 – "seem to be acceptable. I do have the original wording available but I have no real objection. With regard to ... Project Schedule Deck I see no reason for us" – to – "comment on this as I consider this to be project follow up on the theme on slides 13 and 40.

"Your thoughts, please. I will be talking to Paul" on Tuesday.

**MS. O'BRIEN:** Okay.

So first, how come you just went to Dick Westney, and not to, say, John Mallam, Mr. Osiowy – the other members – Mr. Leopold –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – the other members of the team?

**MR. OWEN:** Because the comments were concerning cost and schedule, and that was the area of expertise for Dick Westney. Had anything – had Dick and I then decided to change something then we would've routed that back through the full team. I didn't feel it was necessary to involve the full team in these continuous dialogues whilst – not until we had reached some form of (inaudible) conclusion.

**MS. O'BRIEN:** And that was to – even though, I mean, we know Mr. Mallam from his testimony, he had some strong views about this schedule and the risk, the cost contingencies. So even though he had expressed those views you still felt it was fine to wait and still – work this out first with Mr. Westney?

**MR. OWEN:** If I remember rightly, Mr. Mallam's expressed concerns – and I'm not now trying to indicate that he didn't make – I don't believe that he made the strong concerns, that we heard yesterday, at the sessions when we were doing the DG3.

**MS. O'BRIEN:** So you don't think he expressed them at all?

**MR. OWEN:** He made have expressed some of them but he certainly didn't express some in the manner that he expressed them yesterday.

**MS. O'BRIEN:** Okay, had he been one of the people who was consulting on cost and schedule?

**MR. OWEN:** That's not – that is not – I think he's probably in the support barrier there rather than the –

**MS. O'BRIEN:** Supportive barrier there.

**MR. OWEN:** Yes, absolutely.

**MS. O'BRIEN:** Okay, so you went right to Mr. Westney with it.

**MR. OWEN:** Yup.

**MS. O'BRIEN:** Is it fair to say here that you were saying that you had no real objection to the changes that Mr. Harrington was proposing?

**MR. OWEN:** Yeah – if I can elaborate a little bit on that. That’s what I – I felt that – my first reaction, which is mentioned – my first reaction, looking at the wording – but I must admit that on a closer reflection, which you will find later on – on closer reflection, the amount of change was – ultimately, became a concern to me as well.

If it had been an odd word here and there, okay. But I think Mr. Westney even said later on, that certain areas – that he had no problem with, but generally we did have an overall problem with what was being suggested by Mr. Harrington.

**MS. O’BRIEN:** Well okay, so here at least at this point, your wording was: no real objection. But let’s look at –

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** –what Mr. Westney –

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** – wrote back to you. Can you please read –

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** – Mr. Westney’s email back to you?

**MR. OWEN:** Yeah, okay.

It says, “Derek; I took the time to prepare two slides that show explicitly the differences between what we presented and what Paul suggests. See attached.

“Here is the first point: we absolutely cannot allow our work product to be dictated or edited by Nalcor management or the LCH project management and then issued as IPR Team work product. This violates our obligation to the Gatekeeper and our IPR charter, not to mention our professional ethics.

“What we can do is accept feedback and suggestions from the review as part of the IPR process, just as we do with other meetings and interviews, and prepare a final version of our report to reflect all the input we have received.

Once we submit the final version, we do not change it.

“Second point: there are some suggestions I am comfortable with” – which I just mentioned – “there are some suggestions I am comfortable with and some I am not; also some things that were deleted I feel should not have been. We need to discuss. For both...reasons, I do not agree that the changes are acceptable as given.

“Third point: the schedule reserve deck is out of IPR scope. They are redefining schedule reserve as contingency planning, and we have not studied that, nor is it a DG3 key deliverable we were given to review. So I agree we should ignore it.

“So, I propose the path forward is for you to talk with Paul, understand his suggestions, but make no commitments, and then get the team together via teleconference to draft the final copy of the two slides. Once we complete that, it is the finished work product and not subject to change. You said earlier the team had to be 100% agreed on the report and I totally support that.

“I am available” – Tuesday – “to discuss.”

**MS. O’BRIEN:** Okay, So is it fair to say here, Mr. Westney is not in agreement with changing the final report?

**MR. OWEN:** Yes. He’s not in agreement, and in the discussion that I had with him we came collectively to that – on closer examination, word by word, we came to – we agreed that we would not be prepared to actually change the report.

**MS. O’BRIEN:** Okay.

Let’s look at the changes that Mr. Harrington was proposing. Madam Clerk, we’re going to have to get the orientation – oh no, it’s here, it’s the right way. Thank you.

So can you just read what the text as it was originally in the IPR team’s report and also read what Mr. Harrington had –

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** – had changed.

**MR. OWEN:** Yeah.

Okay, originally we had “FROM: The IPR Team finds that best practice risk analysis processes were followed that can reasonably be expected to indicate adequate realistic cost and schedule allowances. However, since the Project Sanction documentation is not yet complete, the IPR Team cannot comment upon how these allowances have been or will be included in the Project Sanction cost and schedule.”

The change that Mr. Harrington was looking for reads as follows: “The IPR Team finds that best practice risk analysis processes were followed that can reasonably be expected to indicate adequate and realistic cost and schedule allowances. This information will inform the Gatekeeper and the DG3 decision regarding appropriate contingencies. The Project Sanction decision is subject to other pre requisites including economic and other analysis which are underway and not yet complete, the IPR Team understands that appropriate cost and schedule allowances will be included in the Project Sanction cost and schedule.”

**MS. O'BRIEN:** Okay. And then he's got other changes here.

**MR. OWEN:** Yeah, this is more complicating actually.

**MS. O'BRIEN:** It is. So here, the original said: “The IPR team provides the following findings and recommendations” –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – “concerning the use of Management Reserve and Schedule Reserve to account for the strategic project risks associated with mega-projects such as LCP.”

So the first change is Mr. Harrington is changing the word recommendations to observations?

**MR. OWEN:** Correct.

**MS. O'BRIEN:** Okay. And then further, we see that he has made some further changes –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – here. So if we can just –

**MR. OWEN:** Do you want me to try and –

**MS. O'BRIEN:** Yes.

So the original – here – so maybe if you can read the original here, on the first bullet? Because it's – I think it's an important one because it's – this is one where you – where in your original you're talking about examples of substantial cost overrun. So can you please read the first bullet –

**MR. OWEN:** The first bullet –

**MS. O'BRIEN:** – as you – as the IPR team had written the report?

**MR. OWEN:** Yes, okay.

“The extensive and very public track record of large infrastructure projects provides many examples of substantial cost overruns and schedule delays. The size of these mega-projects increases their exposure to strategic risks such as regional ... global economic conditions, market trends, changing government regulations, limits on resource availability, and declining global construction productivity.”

**MS. O'BRIEN:** Okay. And the next bullet is also in black, and this is how it was originally worded.

**MR. OWEN:** Correct.

“Nalcor LCP management team has long recognized these risks and the need to account their potential impact on project cost and schedule. The LCP Project Execution and Project Risk Management Plans describe the use of Management Reserve and Schedule Reserve for this purpose.”

**MS. O'BRIEN:** Okay. So now the next three bullets there in orange are the wording – I believe – that Mr. Harrington wanted. Is that right?

**MR. OWEN:** That's – yes.

**MS. O'BRIEN:** Okay. So can you please read out the wording Mr. Harrington wanted?

**MR. OWEN:** Yeah.

“Nalcor LCP management team has long recognized the extensive and very public track record of large infrastructure mega-project risks and the need to account for their potential impact on project cost and schedule.”

“Front End Loading and pro active risk management has been a key feature of Nalcor’s work leading ... to DG3.”

“The size of these mega-projects increases their potential exposure to external risks such as regional ... global economic conditions, market trends, changing governmental regulations, limits on resource availability, and declining global construction productivity. The LCP Project Execution and Project Risk Management Plans consider the appropriate use of Management Reserve and Schedule Reserve for this purpose.”

**MS. O’BRIEN:** Okay, so there – so, I mean there’s a number of changes, but most notably, the IPR team’s, you know, raising a concern – look, megaprojects can be subject to substantial cost overruns and schedule delays. That very stark wording has been removed.

**MR. OWEN:** Yeah.

**MS. O’BRIEN:** – from Mr. Harrington’s version. Would you agree?

**MR. OWEN:** It’s been removed but I think it’s been replaced to a degree, and combined with the third item in orange there – hasn’t it?

**MS. O’BRIEN:** Where – the risk of substantial cost overruns?

**MR. OWEN:** No. The first – the extensive and very public track record – that first one in black –

**MS. O’BRIEN:** Yes.

**MR. OWEN:** – that’s the IPR team –

**MS. O’BRIEN:** Yes.

**MR. OWEN:** – and then I think if we look at the third one of the change there in orange – I

think that has picked up some of that theme and added something else to it.

**MS. O’BRIEN:** Okay. But would you agree that the concern of many examples of substantial cost overruns and schedule delays is gone?

**MR. OWEN:** Umm.

**MS. O’BRIEN:** If you can see the words there please, point them out to me?

**MR. OWEN:** Yeah.

I see that he’s used – unless I’m misreading it – I see that he’s used the size of these megaproject increases – hmm. He’s totally reworded it.

**MS. O’BRIEN:** Mm-hmm.

**MR. OWEN:** That’s for sure. And not –

**MS. O’BRIEN:** Okay, well, let’s go to the next one.

**MR. OWEN:** – I’m not seeing that he’s taken out the theme there, which we have there in the first bullet, the second sentence: the size of these megaprojects increases their exposure – ‘cause he’s got that in his third bullet.

**MS. O’BRIEN:** No. My point was, I think that he’s taken out the words substantial cost overruns and schedule delays.

**MR. OWEN:** Oh. Yes. Yes. Yes. Yes.

**MS. O’BRIEN:** He’s taken out those words.

**MR. OWEN:** Yes.

**MS. O’BRIEN:** Okay.

So let’s go down here now to the original wording that we have in black for this bullet here.

**MR. OWEN:** Yes. Okay.

**MS. O’BRIEN:** Nalcor’s decision gate process –

**MR. OWEN:** Yes. “Nalcor’s decision gate process defines DG3 deliverables that include

both Tactical and Strategic Risk Analyses; and the Nalcor team has invested considerable effort in these analyses which provide the required quantification of Estimate Contingency, Management Reserve, and Schedule Reserve.”

**MS. O'BRIEN:** And read what Mr. Harrington was changing it to?

**MR. OWEN:** Yeah. “Nalcor’s decision gate process defines DG3 deliverables that include appropriate Risk Analyses; and the Nalcor team has invested considerable effort in these analyses which have included the quantification of ranges of Project and other cost and schedule contingency and reserves.”

**MS. O'BRIEN:** Okay. So he’s removed the reference to tactical and strategic risk analysis –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – and combined them.

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** And instead of saying these analyses provide the required quantification he says –

**MR. OWEN:** Yep.

**MS. O'BRIEN:** – include quantification of ranges.

**MR. OWEN:** Yep.

**MS. O'BRIEN:** That’s what (inaudible).

**MR. OWEN:** When we analysed that more closely, we concluded that he was making a statement there – “... considerable effort in these analyses which have included ...” – he was making a statement there, that we had not reached that conclusion – that the quantification of ranges of project and other costs and schedule contingencies and reserves – we had not – that was not something that we had explicitly stated.

**MS. O'BRIEN:** Okay. Can you go to the next one there in black that was in the report that the IPR Team submitted?

**MR. OWEN:** Yeah. “The Nalcor team has been careful to align the project cost estimate and detailed schedule; the IPR Team recommends that this consistency be maintained in the use of risk analysis results.”

**MS. O'BRIEN:** Okay, and then the wording doesn’t seem to have changed on that one – it seems to have stayed the same.

**MR. OWEN:** It doesn’t seem to have – correct.

**MS. O'BRIEN:** Okay, and the last one.

**MR. OWEN:** Yeah. “The IPR Team concurs with the expectations set by the LCP Project Execution and Risk Management Plans that adequate provisions for Management Reserve and Schedule Reserve be included in the Project Sanction cost and schedules.”

**MS. O'BRIEN:** Okay, and what did Mr. Harrington change that to?

**MR. OWEN:** “The IPR Team concurs with the expectations set by the LCP Project Execution and Risk Management Plans that adequate provisions for Management Reserve and Schedule Reserve be recognized in the Project ... decision making process.”

**MS. O'BRIEN:** Okay, so, in this case here, the IPR Team’s recommendation was that Management Reserve, Schedule Reserve be included in the Project Sanction costs and schedule.

**MR. OWEN:** Very clearly.

**MS. O'BRIEN:** Very clearly.

**MR. OWEN:** Very clearly.

**MS. O'BRIEN:** And Mr. Harrington was changing that recommendation.

**MR. OWEN:** Yes, because he was saying: be recognized in the project sanction decision-making process, which is very – which is considerably less specific than the IPR team recommendation, where we said very clearly management reserve – which is covered by – which is – covers strategic risk. Management reserve and schedule reserve be included in the

project sanction costs and schedules – that was our firm recommendation.

**MS. O'BRIEN:** Firm recommendation.

So not only did he change the recommendation, he changed it from a recommendation to an observation by virtue of the first change he made on the slide, right?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay.

So can we go back to P-00506, please?

So this is – so now, in the interim, you've gotten this feedback from Mr. Westney. And it was Dick Westney who did that comparison to – that we just reviewed, right?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** And he sent –

**MR. OWEN:** Yes, he did the comparison of – yes. Yeah. Yup.

**MS. O'BRIEN:** Okay.

And he said we're not – essentially – making these changes. And he said this would be against our professional ethics.

**MR. OWEN:** Yes.

Once we – I mean, once we reviewed – once Dick and I reviewed the changes word by word – as I say, my first reaction was, okay, it's words. But once we reviewed the changes word by word, we then came to the conclusion that the changes were totally unacceptable because they were going, in some cases, beyond what we had found.

So they were making statements that, in the first place we couldn't stand behind because they were making statements as though we'd found something – which, in actual fact, we had not. And there was a nuance put into some of the words by Mr. Harrington that – along the same thought process, like the last one we saw, which was clearly not what we recommended.

So, after a very, very close review of every word, Mr. Westney and myself were in total agreement that we couldn't accept those changes.

**MS. O'BRIEN:** Did you ever communicate this – that this had happened – to any of the other members of the IPR team?

**MR. OWEN:** No.

**MS. O'BRIEN:** And why not?

**MR. OWEN:** Because the net conclusion was that Mr. Harrington accepted that our report would stand, and I think that is recorded further up in the emails. And therefore there was no change to the report, so therefore there was no need to involve the other team members.

**MS. O'BRIEN:** Okay.

So let's go back to this email chain because –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – where we broke it off – the emails back and forth between you and Dick Westney sort of happened in the interim –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – so that why we left this email –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – so you – we – the next thing we get is on September 4. Paul Harrington writes you: "Derek I may have missed your call today, I have been tied up on preparations for ... MHI visit tomorrow and the rest of the week."

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** "If we need to get folks together to talk about the characterization of schedule reserve for" – Muskrat Falls – "and LIL then let's do that. Ed and Gilbert are on board with this and understand that the target schedule is just that and something that has low probability (jason is having the schedule analysis updated) but something we motivate the project team to achieve knowing that we have

float or reserve in our pocket. If we let the actual need date out we lose that leverage and motivation opportunity. Let me know how we can advance this discussion. I may not be able to attend but can get the right people to attend Paul Harrington.”

And then you wrote back. And can you read your next message back to Mr. Harrington, please?

**MR. OWEN:** Yeah.

“Paul,.....I left you a voice mail message on your office phone, assuming you would be in the office. I do not consider the IPR team need to be involved with, or should comment on, any Project follow up actions resulting from the IPR key messages. Unless, of course, the IPR team is re-commissioned for that purpose. The Charter covers only the work made available during the review period. The report is so worded that the Project has full latitude to take the key messages and action them in accordance with the Project Plans and procedures.”

**MS. O'BRIEN:** Okay, and then you write him a second time again –

**MR. OWEN:** Yeah.

**MS. O'BRIEN:** – the next day. What did you write him the next day?

**MR. OWEN:** “Paul,.....On quiet reflection, and reviewing further your e-mails, it seems that there are varying perceptions of the role of the IPR team. Maybe it would be helpful if we had a chat. Let me know a good time to call you on your home number.”

**MS. O'BRIEN:** And so what were the varying perceptions of the role of the IPR team that you were referring to here?

**MR. OWEN:** As you could see from some of the dialogue, Paul was wanting to involve the team in a follow-up discussion with regard to schedule. With regard to schedule reserve, I think it mentions getting together with whoever. And he may not be available but he would make sure the right people are available. That is outside the realm of the IPR team. The IPR team's role really finishes when the final report

is produced, unless the IPR team is further requested by a change to the Charter to do otherwise.

So that – I believe why I said varying perceptions – I believe he had a perception of a ongoing involvement of the IPR team in some of the follow-up activities by the project team, and that's not the role of the IPR team.

**MS. O'BRIEN:** Okay, then he writes back to you and says, “No that's ok I get it. No need for further discussions on this right now.”

Did you have any discussion with Mr. Harrington on this subject, or is everything recorded in the email chains?

**MR. OWEN:** There were discussions, I thought, over the phone, where I emphasized that we couldn't change the report.

**MS. O'BRIEN:** Did you tell him that Mr. Westney had concerns that, you know –

**MR. OWEN:** I – I'm pretty sure –

**MS. O'BRIEN:** – that to do so would violate professional ethics?

**MR. OWEN:** – I'm pretty sure I did explain to Paul that I had discussed this with Dick Westney, who was the – who had the – you know, that was in his (inaudible) category of his expertise. And that we could not change the report. And I think that's what Paul means by: No, okay. I get it. No need for further discussion. I think that was the time that he understood that we were not prepared to change the report.

**MS. O'BRIEN:** Okay.

So the IPR team, your recommendation had been that an amount for strategic risks, essentially that management reserve, and also schedule reserve, be included in the project sanction costs and schedule.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. And when the 6.2 billion was announced, were you – did you know at that



time that there was nothing there for strategic risk?

**MR. OWEN:** I was not concerned with activities beyond that –

**MS. O'BRIEN:** So is the answer yes or no? Did you know that that number didn't have anything in it for strategic risk?

**MR. OWEN:** I didn't know it because I never had an opportunity to look at the breakdown of that number.

**MS. O'BRIEN:** Okay, so you didn't know. Did you know it only had 7 per cent for tactical contingency?

**MR. OWEN:** No, I didn't because I – it was a decision that was – I mean the (inaudible) decision support package, we had nothing to do with whatsoever. We didn't see the decision; it's beyond the scope of the IPR team actually.

**MS. O'BRIEN:** I understand, okay. So Mr. –

**MR. OWEN:** And on 7 per cent by the way; that – I saw the 7 per cent mentioned when I reviewed some of the exhibits, the Grant Thornton Report. The 7 per cent is computed from there, but it is a little bit confusing in that report because the base cost of approximately 5.4 billion – and the 7 per cent is coming from a Grant Thornton – I believe – but you can check it with them – is coming from a value, a P50 value, derived from a curve produced by the Westney organization.

And that P50 value on that curve was something like about 5.8. And therefore the difference between the 5 point – and, you know, I'm now working from memory with regard to the numbers. The difference between the 5.4 – which is the base cost – and the P50 value of 5.8? That's where the 7 per cent is actually generated from. When I look at that report my question is: it was sanctioned at 6.2. So if I – there must have been another probability curve produced other than the one that is shown in the Grant Thornton report. Because at 6.2, if I use the curve that is in that report at 6.2, that's not a P50 – that's more than a P50.

So either something – either the base number – although the base number that – the 5.4 –

**MS. O'BRIEN:** We will have Mr. Kean and others to explain –

**MR. OWEN:** Yeah, yes.

**MS. O'BRIEN:** – how this is done.

**MR. OWEN:** Yeah, yeah. Because there is – either the base number is higher – but the base number that I took out of the Grant Thornton report was the 5.4. And they had – at that – in that report, to get to 6.2, you've got 700 – you've got 700 million.

**MS. O'BRIEN:** It's probably better we get this evidence done by the people who did the work. And when – we will have those people to explain what was done.

**MR. OWEN:** Because that generates then a 13 per cent, not 7 per cent.

**MS. O'BRIEN:** So are you saying that you believe it's a 13 per cent contingency?

**MR. OWEN:** I don't know because the –

**MS. O'BRIEN:** Okay.

**MR. OWEN:** – a look at the numbers, there seems to be a slight discrepancy there somewhere, which someone needs to explain. That's all I'm saying.

**MS. O'BRIEN:** Yes –

**MR. OWEN:** Okay?

**MS. O'BRIEN:** – and we will be hearing from people further on that.

Okay.

**MR. OWEN:** And the only reason that I wanted to make that clarification was because I mentioned actually 7 per cent yesterday.

**MS. O'BRIEN:** Were you talking to anyone overnight about your evidence?

**MR. OWEN:** No.

**MS. O'BRIEN:** Okay.

So the next is – we're going – so you were – so you're saying that when the 6.2 was announced, you had no knowledge of what was in there for contingency?

**MR. OWEN:** Exactly.

**MS. O'BRIEN:** None. And you had no knowledge whether anything was in there for strategic risk or management reserve?

**MR. OWEN:** Yeah. No knowledge at all.

**MS. O'BRIEN:** And do you know what the first – what the scheduled date of power was? In other words, what the project completion date was? Did you know what that was?

**MR. OWEN:** I read that it was the middle of 2017; (inaudible) action package, yeah.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** I mean at the time of when the announcement was made and it was public, it was 6.2 and first power was going to be 2017.

**MS. O'BRIEN:** Okay.

Okay, P-00509, please.

**THE COMMISSIONER:** Tab 35.

**MS. O'BRIEN:** Great.

So this is your final email on this topic back to Dick Westney where you say, "Dick,.....Paul seems to have completely backed off. I believe he did not appreciate that the IPR team are not involved in evaluating the go-forward Project actions resulting from the Key Messages.

"In addition I believe finally Paul got the message that the Project could not embellish our Key Messages to the degree that they were no longer the IPR findings. I have requested confirmation that the report remains 'as written'.  
Regards, Derek."

Mr. Westney replies, "Very good."

Did you get the confirmation that the report remained as written?

**MR. OWEN:** Not that I remember, no.

**MS. O'BRIEN:** Okay.

Do you know whether the report was ever shown to anybody else?

**MR. OWEN:** I've got no idea.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** It certainly wasn't put into the decision support package. There was a overall statement made very, very early on one of the sheets that the IPR had been done with. And I forget the exact wordings, but that was the only reference to the IPR report.

It was on one of the signed document sheets up front of the report, where it made a general statement; the IPR had been completed with no – had no significant findings. That's not the precise wording but that was the tone of it. Otherwise, the decision report – the decision support package did not contain the – either a summary level like it did in DG2; for DG3, it contained nothing of the detail of the report at all.

**MS. O'BRIEN:** Okay, are you still doing work on the project?

**MR. OWEN:** I – on the Lower Churchill Project?

**MS. O'BRIEN:** On the Muskrat Falls Project – are you still doing work on the Muskrat Falls Project?

**MR. OWEN:** Yes, I have an amended contract to assist with the – or to lead the IPR Decision Gate 4.

**MS. O'BRIEN:** Okay, so that would be the commissioning Gate?

**MR. OWEN:** That is the Gate which the project transfers over to operations.

**MS. O'BRIEN:** And has the team been assembled yet for the DG4?

**MR. OWEN:** The team has been named with the – we still have one position to fill.

**MS. O'BRIEN:** And any of the other people who sat on the DG3 IPR team also named to the DG4 team?

**MR. OWEN:** No. Apart from myself.

**MS. O'BRIEN:** Just you.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Okay, those are all my questions for you.

Thank you, Mr. Owen.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** Right.

Province of Newfoundland and Labrador.

**MR. RALPH:** Good morning, Mr. Owens.

**MR. OWEN:** Good morning.

**MR. RALPH:** Peter Ralph for the Government of Newfoundland and Labrador.

**MR. OWEN:** Mm-hmm.

**MR. RALPH:** We've had contact in other context, but it's a pleasure to meet you again.

**MR. OWEN:** Thank you. Nice to see you.

**MR. RALPH:** I have just a few questions –

**MR. OWEN:** Yeah.

**MR. RALPH:** – and they relate to your comments yesterday about decision support packages.

**MR. OWEN:** Yes.

**MR. RALPH:** And base cost estimates.

**MR. OWEN:** Mm-hmm.

**MR. RALPH:** And – I'm paraphrasing – but I believe you testified that the decision support

packages shouldn't – in some way describe how good those base estimates are.

**MR. OWEN:** Mm-hmm.

**MR. RALPH:** Is that correct?

**MR. OWEN:** Yes, basically. I – yes.

**MR. RALPH:** And perhaps – how would that be expressed in a report or in a support package?

**MR. OWEN:** Yeah.

What one likes to see is some degree of benchmarking of those. And by benchmarking, I mean looking at other projects, looking at other data – productivity data, particularly with regard to the scope of the project and the work that's gonna be performed in the province, which is – which really, traditionally, has a challenge with regard to productivity.

And that's what I was saying, that I felt there was no – there was – as far as I could see, there was no benchmarking done for the schedule or for the cost, so comparisons, whatever they may be – and that's normally done in order to provide the shareholders with some degree of confidence – or some degree of comfort, rather – with regard to cost and schedule certainty. And I feel that's missing in those support packages.

**MR. RALPH:** So, once you provide that benchmarking, do you end up with a range of cost estimates? How would that work?

**MR. OWEN:** No. The benchmarking, really, is done to – is really done to help you to feel that your base estimate, which is what I was stressing yesterday with –

**MR. RALPH:** Yes.

**MR. OWEN:** – regard to probability. It's very key to really get that base estimate as good as you possibly can and you use benchmarking, really, to double-check your base estimate that, you know, historically, the factors we've used for this and the factors we've used for that make sense. So –

**MR. RALPH:** Right.

**MR. OWEN:** – that’s where that’s done. It’s basically to get this best base estimate as one can possibly get.

**MR. RALPH:** So, in any particular package then, you would say, it’s difficult, in this instance, to nail down the base estimates without – with any certainty because of X, Y and Z.

**MR. OWEN:** It’s –

**MR. RALPH:** Or we are quite confident about the estimates.

**MR. OWEN:** Yes. If you’ve got benchmarks and – that increases the level of confidence around that base estimate.

**MR. RALPH:** Thank you. Those are my questions.

**MR. OWEN:** Okay. Thank you.

**THE COMMISSIONER:** Nalcor Energy.

**MR. SIMMONS:** Good morning, Mr. Owen. As you know, I am Dan Simmons, here for Nalcor Energy.

A few questions for you this morning.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** Just to pick up on something Mr. Ralph just asked you about – was it part of any of the work that you had done on the project, to conduct any review of the decision support packages?

**MR. OWEN:** No. I was not involved with any of those packages at all.

**MR. SIMMONS:** Okay. When did you – because you’ve obviously you’ve read the decision support package – had you done that before these Inquiry proceedings were under way?

**MR. OWEN:** No. I looked at the packages when I was preparing – looking at the exhibits online.

**MR. SIMMONS:** Okay.

And I gather you’ve been following, I think, fairly closely the Inquiry proceedings, the exhibits and some of the testimony. Is that correct?

**MR. OWEN:** I went through – when I was advised that I was going to be a witness – I went through the exhibits online as they were at that time. And I looked over the exhibits that I felt would be within the sort of scope of any testimony that I was likely to be giving.

**MR. SIMMONS:** Thank you.

**MR. OWEN:** That’s what I did.

**MR. SIMMONS:** Thank you.

Okay. Yesterday, you mentioned that part of the IPR processes – for both the IPR done before the DG2 decision and one done before the DG3 decision – included that there were people – there was an IPR coordinator –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – and there’s two staff people essentially from the project, I think, that provided assistance, to you.

**MR. OWEN:** I think there was one person on DG2 and two for DG3.

**MR. SIMMONS:** Okay. And what’s the role of the IPR coordinator again? What kind of service do they provide to the IPR team?

**MR. OWEN:** They assist the IPR team. Initially, they correlate the documents and the deliverables that the IPR team are going to review.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** They file them on a shared drive or whatever is used such that the IPR team can access them online in advance of the actual four or five days – or in the five or six days. So they make sure that the documents are made available.

They then assist me predominantly to set up the interview schedule because we talk to a lot of people, as you can see from the schedule, and

they have a day job. And so it's easier to have one of the coordinators track all the interview schedules because we set a schedule for one day and then someone gets called to a meeting, so we have to shuffle things. It just saves me time doing that. They will organize all that. They know who has to be interviewed; we've given them the sequence in which they need to be interviewed, so they look after that.

They help us in any hard copies that – of documents that we feel that we – that were not available to us, but reading through a document it references another document. So we say, okay, can you find us that document? So that's the work that they generally do.

**MR. SIMMONS:** Okay.

**MR. OWEN:** So they're not involved in the actual interviews or anything of that nature.

**MR. SIMMONS:** So if there are any documents that have not been included in the package that's been collected –

**MR. OWEN:** Yeah.

**MR. SIMMONS:** – for the IPR to review –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – beforehand –

**MR. OWEN:** Yeah.

**MR. SIMMONS:** – I think you've said the IPR coordinator is available to go and retrieve anything else that the –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – IPR team –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – feels it should have access to.

**MR. OWEN:** Yes, yes.

**MR. SIMMONS:** I'd like to look at the report from the IPR at Decision Gate 2, Exhibit P-

00491, please? Just a couple of points I want to clarify –

**MR. OWEN:** Sure.

**MR. SIMMONS:** – about that report.

And if we can go to page 4, please.

**THE COMMISSIONER:** At tab 17.

**MR. SIMMONS:** Now, on this – this is a slide early in the report, and it –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – describes what the IPR objectives are and it says for Gate 2/Phase 3. And as I read it, what the team was looking at here regarding Decision Gate 2 decision readiness –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – is a little bit different from what you are asked to look at regarding phase 3 work readiness. And I wonder if you can explain what the distinction is between those two tasks, if there is one.

**MR. OWEN:** I agree that the terminology is a little bit confusing. When you go through Gate 2, you go into a phase, a pre-sanction phase, and that phase is called phase 3.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** So you go through Decision Gate 2 to get to a work scope of phase 3. And so what we are looking at there is Decision Gate 2 decision readiness address the project readiness of deliverables required to get through Gate 2. So you have to have a certain list that should either be, you know, well advanced or whatever in order to get through the Gate. And then, in addition to that, we look at then the work readiness to perform the work in phase 3, which is the work between Decision Gate 2 and Decision Gate 3.

**MR. SIMMONS:** Right, so there's two tasks here really; one is –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – let’s look at the, what you call the deliverables, the –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – preparation –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – that has been done in order –

**MR. OWEN:** Yeah.

**MR. SIMMONS:** – to pass through Gate 2 and make the decision required at Gate 2. And then you’ll pass Gate 2 and –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – you’ll say, what is the state of readiness of the preparation for the work that is then going to be done after you go through Gate 2? So both of those were addressed at this IPR –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – at this stage, were they?

**MR. OWEN:** Yes.

**MR. SIMMONS:** Okay.

**MR. OWEN:** Yes.

**MR. SIMMONS:** And at the bottom of that slide there’s – looks like there’s a graphic there that illustrates it? And –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – it’s got a green line that says –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – Gate 2 readiness.

**MR. OWEN:** Yes.

**MR. SIMMONS:** And it –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – identifies the Gate –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – and then it has –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – phase 2 afterwards.

**MR. OWEN:** Yes, yes.

**MR. SIMMONS:** So got that? Yeah.

**MR. OWEN:** Yes. Yeah.

**MR. SIMMONS:** Okay, the next page, page 5, please.

So this slide, it’s headed: Summary of Findings – Gate 2 Decision Readiness. So is this a high-level summary of what the IPR findings were on that first question on how well prepared the project team was to move through Gate 2 and to start the phase 3 work that would lead up to the appointment of the EPCM –

**MR. OWEN:** Yeah.

**MR. SIMMONS:** – start the work of the EPCM contractor?

**MR. OWEN:** Yes, yes. Yeah.

**MR. SIMMONS:** And the conclusion there, if I read it, is that – in the bottom of the slide, there’s two columns there and it says: “Gate 2 Readiness was scored as shown.” And it says: “Out of 25 focus areas, 17 were rated as green and a further 8 were marked as green/yellow. This is particularly impressive in light of the recent strategy change to MF first.”

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** So my first question is: Is this telling us that for the team’s review on that first issue is – are we ready to go through Gate 2 – that the 25 focus areas examined all scored pretty well. And there were none that fell down into the category of there’s a gap that needs to be closed before you can move through Gate 2.

**MR. OWEN:** Yes, that's what that's saying. And then I think we would find the 17 and the eight in the detailed spreadsheet.

**MR. SIMMONS:** Yes. And then when we go on, the detail of each of those is described with –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – comments as we saw.

**MR. OWEN:** Yes.

**MR. SIMMONS:** Okay.

And why the reference here to the recent strategy change to MF first?

**MR. OWEN:** This was Decision Gate 2, and prior to that the development scenario was Gull Island first, Muskrat Falls second. And that was changed.

**MR. SIMMONS:** Right.

**MR. OWEN:** And that's why I was saying that in light of the recent strategy change to Muskrat Falls first. So it was a change of –

**MR. SIMMONS:** Right.

And you were asked some questions by Ms. O'Brien about that yesterday, about whether the team was aware that this change had taken place.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** And it appears from this slide that the team certainly was aware that that –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – change had taken place.

**MR. OWEN:** Yeah.

**MR. SIMMONS:** And would I be right in concluding from this that even though that change had taken place, the team found that the project team was nevertheless ready to go through Gate 2 and they had managed that –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – that change?

**MR. OWEN:** Yes, yes, yes.

**MR. SIMMONS:** Okay.

The next slide, page 6, please, so this one is headed: Summary Findings – Phase 3 Work Readiness. So is this addressing then the second question of –

**MR. OWEN:** Yes.

**MR. SIMMONS:** –we're now looking at what has to be done in the next phase? So it's kind of a forward-looking –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – assessment of readiness to do that work?

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** Yes, okay.

And that's work that's going to be done over a period of time. So what would the team's expectations be about how well prepared the team would be at this point –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – to do that work?

**MR. OWEN:** Yeah. What we'd be looking at there is that the control procedures – and there are many of them on a project of this size – the procedures that the project needs to manage the project going forward were well advanced or recognized that they had to be actually produced. One of those is the project execution plan, as an example.

So that's one aspect that we look at. You know, is the – are the procedures in place that are going to enable the project to move smoothly and be under control?

The other one, obviously, is – are the resources. And as the project management structure from an organizational perspective, you know, is that well understood, is it clear when the individuals within the organization have to be mobilized,

not only from the owner's perspective, but also from the contractor's perspective?

I think at this time, Decision Gate 2 – I don't believe that the EPCM contract had been executed at that time; I think that came after. But SNC-Lavalin were contracted to do some early work, probably front-end engineer and design feed, as we call it, so procedures and documentation so that we are comfortable that the project can move forward in a controlled manner with adequate procedures in place, resources to be able to execute the work, basically.

**MR. SIMMONS:** Right.

And the – well, the statement in red there on the slide says: "Provided the same level of focus is applied timely to these priorities as the Gate 2 readiness deliverables it is expected the project will be ready when its EPCM Contractor is mobilized."

**MR. OWEN:** Yeah.

**MR. SIMMONS:** So does that refresh your memory about the timing of –

**MR. OWEN:** Yes, yes.

**MR. SIMMONS:** – the engagement of the EPCM contractor?

**MR. OWEN:** Yes, yes, yes. Yeah.

**MR. SIMMONS:** So is part of examining the phase 3 work readiness to identify gaps in preparedness so that now there's an opportunity for the team to work on filling those gaps before they reach the point where the EPCM contractors mobilize?

**MR. OWEN:** Absolutely.

**MR. SIMMONS:** Okay.

And I think you were brought to some of the analysis of the focus areas –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – related to this yesterday and there were some gaps that were identified –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – that would've had to have been addressed.

**MR. OWEN:** Yes.

**MR. SIMMONS:** Okay.

Now, regarding the second IPR that was done prior to Gate 3, first question I have is about timing of it.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** The IPR review was done in late August and the report was presented on August 31, 2012, as we've heard.

**MR. OWEN:** Yes.

**MR. SIMMONS:** And we've also heard that sanction of the project was actually in December of 2012, which was about three months away.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** So a similar question there: Would part of that IPR process be to identify gaps in preparedness for making the DG3 decisions so that they could be addressed between the time the IPR is done and when the decision is made?

**MR. OWEN:** Yes. Yes.

**MR. SIMMONS:** So when we see things in that IPR report that identify areas where all the work may not have been done or there may be areas of improvement, would that be some of that identification of gaps that you would expect would then have to be addressed before the final decision is made?

**MR. OWEN:** Yes, and I think – and at that time we did produce a spreadsheet that showed – I think in orange is one colour and blue maybe, I'm not sure which way around they were, but what we tried to do there was to produce a spreadsheet to help the project team monitor those gaps and to give an indication to the project team, not only if the gap was open, but a time frame under which we felt that the gap needed to be closed.



And there's – I think there's a column on the spreadsheet that says within six months or something or a little diagram that – a little arrow that indicates less than six months within – not really saying – within six months we expect that gap to be closed.

**MR. SIMMONS:** Right.

**MR. OWEN:** Yeah.

**MR. SIMMONS:** So the purpose of the IPR then, the second one, the DG3 IPR, it's not to assess whether the project should be sanctioned or not.

**MR. OWEN:** Correct.

**MR. SIMMONS:** It's more to assess are the – is the information collected and available and the work done so that the Gatekeeper can make the decision to sanction the project or not –

**MR. OWEN:** Yes.

**MR. SIMMONS:** Can we go to the DG3 presentation, please, which is P-0050, and I'll go to page 3.

So this is the final report and I believe this is the one that was presented –

**THE COMMISSIONER:** Tab 30.

**MR. SIMMONS:** – on August 31.

So this slide, which is early in the presentation, is headed: An Independent Project Review, IPR, enhances decision-making. It talks about the value of expert cold eyes review. And the second bullet says the: "Goal of IPR is to advise the decision-maker (i.e., 'Gatekeeper') of the project's readiness to move to the next stage of the project; it is *not* an audit or validation of the design, cost estimate, project economics, or plan."

Now, I asked Mr. Mallam a similar question to this one but I didn't bring him to this slide here. And I wonder if you could comment on this statement here of what the IPR is not when it refers to audit or validation of these listed items here.

**MR. OWEN:** Okay.

The IPR is a short intensive effort, as you've heard.

**MR. SIMMONS:** Mmm.

**MR. OWEN:** I mean, you know, we look at numerous documents. We get together. We spend, probably, effectively I suppose, five or six days, excluding the time at the back end where we have to do the report. And therefore the IPR cannot – and this is why we say what it isn't – cannot really get into the detail to validate any aspect of the design or to validate the cost estimate by, let's say, you know, going into the detail of the cost estimate or the project economics or the detail of the schedules. I mean the schedules for this project would run into – well, level-five schedule, which is the most detailed schedule, would be 50, 60 or 70 sheets.

There's no way that within that time frame that we have for executing the IPR that we can audit or we can really validate in detail. And that is – that's – that really is a standard practice for the IPRs basically, no matter when they're done or who does them or which organization. Yeah.

**MR. SIMMONS:** So to take the cost estimate, for example, then.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** Would the IPR then look at the processes that were in place to ensure that the cost estimate was well prepared and to see how those had been applied, but not to look at the actual work product –

**MR. OWEN:** Correct.

**MR. SIMMONS:** – of the cost estimate itself.

**MR. OWEN:** Correct, yeah.

We would start and we would look for the basis of estimate. Is there a document that is called the basis of estimate which –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – lays out the way that the estimate is going to be done –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – and the various factors. Whether it's going to be a factored estimate or whether it's going to be a detailed estimate, we would look at that basis of estimate document, but not dig into whether or not the calculation for the cubic metres of concrete and the productivity was this or that.

**MR. SIMMONS:** Yeah, okay.

And do you know that there was a basis of estimate document for this project that you had to review or is that a level of the Inquiry –

**MR. OWEN:** No, I believe there was a basis of estimate document.

**MR. SIMMONS:** Yes.

**MR. OWEN:** I'd be surprised if there wasn't and – yeah.

**MR. SIMMONS:** Page 7, please.

So this slide is headed: Comments on the LCP DG3 IPR Process.

**MR. OWEN:** Yeah, yes.

**MR. SIMMONS:** And this was in acknowledgement and thanks to both Nalcor and the SNC-Lavalin management teams.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** And the first bullet said: "All requested documents were addressed with Information Management support as needed." So do I take from that that any documents the team wanted to ask for were provided and there was no problems being able to access the information that you requested in documentary form?

**MR. OWEN:** That is correct.

**MR. SIMMONS:** The second one said: "IPR was clearly a top priority for all concerned; everyone made themselves available when and to the extent needed, even when follow-up meetings were required." So you had the full

access that you wanted to the people you needed to interview as well, did you?

**MR. OWEN:** Yes.

**MR. SIMMONS:** And then you said: "IPR Team observed a high level of professionalism from Nalcor and SLI; insightful answers and open discussions characterized the review." So in the interviews that you did, was there any sign of reluctance to provide you with full and open information that – in response to the questions that you were asking in those interviews?

**MR. OWEN:** No.

**MR. SIMMONS:** Okay. Page 13, please.

So this is the start of the presentation, which has the key messages that were –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – reviewed with you yesterday. And would it be fair to say that point 1 is probably the most important key message here, which is that, "The LCP exhibits a degree of readiness for Decision Gate 3 that meets or exceeds Nalcor and industry requirements."

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** So –

**MR. OWEN:** Yeah, that's the – that's a very positive ...

**MR. SIMMONS:** Yes.

**MR. OWEN:** Yeah.

**MR. SIMMONS:** And so, an overall conclusion like that – would that have required the team to take into account all the positive findings and all the negative findings, weigh and balance them and come to an overall conclusion as to whether the project was ready or whether it was not yet ready to go to the DG3 –

**MR. OWEN:** Yes, that's –

**MR. SIMMONS:** – decision?

**MR. OWEN:** – that would be the decision from the team looking at the findings, the observations that we had come up with.

**MR. SIMMONS:** Okay.

**MR. OWEN:** One of the – going back to the co-operation of the team during the interviews – these reviews, obviously, can have somewhat of a negative connotation –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** As you can imagine.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** So we are very keen to recognize the positives because we're not there to – we're there really to help identify the gaps such that the team can fill those gaps. So –

**MR. SIMMONS:** Right.

**MR. OWEN:** – and so – and that was the comment about the level of openness et cetera. That went very, very well. Because we do spell out up front that we're not here to criticize. I mean, we're here to help you.

**MR. SIMMONS:** Mm-hmm. Okay, good.

Can we go to the next page, page 14 please? Now, there are many positive things in here, and we won't go through those in detail. But I'll bring you to point number 5 which is the one that you've been examined on a fair bit so far. And that's the one that says, "The IPR team finds that best practice risk analysis processes were followed that can reasonably be expected to indicate adequate and realistic cost and schedule allowances."

So this was a statement arrived at, and that all members of the IPR team agreed with, in order for it to find its way into the report. Is that correct?

**MR. OWEN:** Yes.

**MR. SIMMONS:** Yes.

**MR. OWEN:** Yeah.

**MR. SIMMONS:** Okay.

And this examination of the best practice risk – of the risk analysis processes –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – is that really at the – what – this kind of – the core question was, that the IPR team had to look at; whether the processes were in place and whether they were correctly followed.

**MR. OWEN:** Yes.

We looked at the process. We didn't look at the detail of the actual report. But we looked at the process, yeah.

**MR. SIMMONS:** And then the next sentence says: "However, since the Project Sanction documentation is not yet complete, the IPR team cannot comment upon how these allowances have been or will be included in the Project Sanction cost and schedule."

So, first of all, there's a reference there to project sanction documentation not yet complete. Can you expand a little more on what wasn't complete at that point, or what you're referring to here in this context?

**MR. OWEN:** Well, what I – what we were referring to there was, really, the – actually, decision support package.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** Which really is the project sanction documentation. And perhaps we should have been a little bit more specific, and instead of project sanction documentation, spelt out: the actual decision report package.

**MR. SIMMONS:** So you were clearly flagging here that, while best practices were evidently being followed in risk analysis, you didn't have the complete results of that yet, so that was being flagged for the Gatekeeper here.

**MR. OWEN:** Yes, that was being flagged – that the work had been done at this stage –

**MR. SIMMONS:** Yes.

**MR. OWEN:** – and there was information available, but we did not – because we didn't have the project sanction documentation, so we didn't have an opportunity to see how the allowances had been included –

**MR. SIMMONS:** Right.

**MR. OWEN:** – or not included.

**MR. SIMMONS:** Yeah.

**MR. OWEN:** Because the actual decision support package was yet to be worked on, because the sanction was, I don't know, several months after the review.

**MR. SIMMONS:** Good.

Couple questions for you now related to the information you were able to obtain about risk analysis.

You'd mentioned that you'd learned some information about that from the interview with Mr. Kean –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – I believe.

**MR. OWEN:** Yes.

**MR. SIMMONS:** And can you tell me a little bit more about just what you learned about what had been done, what was available, what was yet to be done on that front?

**MR. OWEN:** Well, we understood that – we understood – the first thing that we understood was that there was going to be a further risk analysis performed. And the next thing we understood was the, sort of, output from the risk analysis that had already been performed and that's when we were – that's where we understood the probability of the schedule, for instance, and I can't remember all the details with regard to the cost side, but we did – I'm quite sure we could see from verbal presentation, from Jason Kean, that cost allowances had been – contingencies, et cetera – had been established, but I can't remember whether or not he said specifically what those amounts were –

**MR. SIMMONS:** Right.

**MR. OWEN:** – because – bearing in mind that they had told us quite clearly that they were going to redo the –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – analysis –

**MR. SIMMONS:** Right.

**MR. OWEN:** – anyway.

**MR. SIMMONS:** Now we looked a moment ago at the degree of co-operation that you got in the interviews and so on, so –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – do you have any comment on whether – on this topic – whether there was any reluctance on Mr. Kean's part to provide this information, or whether this information about the work that had been done and was to be done was, you know, freely provided.

**MR. OWEN:** I don't remember there was any reluctance –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – no.

**MR. SIMMONS:** Okay.

And following that then and knowing that you had the IPR coordinator available to provide access to any documentation you needed, did the team consider then that it was necessary to go and actually request any of the documentation for the risk analysis work that had been done, in order for you to carry out your responsibilities?

**MR. OWEN:** No, we felt that as there was going to be a subsequent risk analysis –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – being done, which we had been told, there was – we really didn't need to see the one that had already been done, because it was going to be redone. And that we had obtained

sufficient high level information in the interview to really satisfy us.

**MR. SIMMONS:** Yeah, good.

Now did you know at that time who – what consultant was involved in doing risk analysis work for the project?

**MR. OWEN:** Yeah, that was Westney Group, yeah.

**MR. SIMMONS:** Now, this is an obvious question, I guess; Mr. Westney is part of the team –

**MR. OWEN:** Mmm.

**MR. SIMMONS:** – was he a source of any information to the team about the risk analysis work that had been done.

**MR. OWEN:** No.

**MR. SIMMONS:** Okay. And make – why not? It would seem obvious to someone to think that he must have been because it was his company doing it. So can you explain why –

**MR. OWEN:** We wanted to keep –

**MR. SIMMONS:** – he wouldn't have been a source?

**MR. OWEN:** Yes. We wanted to keep and he wanted to keep himself out of the actual risk work that had been done by his company. And therefore, you know, had he – had that not been done by his company, you know, there may well have been a, you know, more critical review of that work. But he wanted to – not only wanted, but we expected him and he agreed that he was not going to make any comment on the work that was done by his company.

**MR. SIMMONS:** Okay.

And you were asked some questions this morning about the – a fair number – you took some time going through the exchange of email with Mr. Harrington following the presentation of this report –

**MR. OWEN:** Yes.

**MR. SIMMONS:** – on August 31.

**MR. OWEN:** Yes.

**MR. SIMMONS:** And we can go to the email if we need to, but I believe when he first contacted you, if I recall correctly, he made reference to that there was going to be additional work done on risk analysis.

**MR. OWEN:** Yes.

**MR. SIMMONS:** So the kind of information that he initially provided you, that email, was that consistent or inconsistent with what you'd heard from Mr. Kean earlier, before the work of the IPR team was finished?

**MR. OWEN:** Could you just repeat that a moment, please?

**MR. SIMMONS:** Did you hear anything – from what you heard from Mr. Harrington when he first contacted you, did – was that –

**MR. OWEN:** Oh, I see.

**MR. SIMMONS:** – consistent or inconsistent with what you'd heard from Mr. Kean before about where the project was in its risk analysis?

**MR. OWEN:** No, he reiterated, I think, in that email that Mr. Kean had told the IPR team –

**MR. SIMMONS:** Mmm.

**MR. OWEN:** – that there was going to be a further risk analysis done.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** And that the risk analysis that was – that had been done and was in place at that time was somewhat dated.

**MR. SIMMONS:** Okay.

And we've worked through the whole series of emails. Is it fair to say that the bottom line to the discussion with Mr. Harrington about whether the report should be amended –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – initially, you were sympathetic and didn't see a problem with some things that were being suggested – I'm close to review with Mr. Westney.

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** The conclusion was reached that this wasn't the IPR's role –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – to be doing this. This was work that the project team would be doing to address the gaps afterwards. Is that fair to say?

**MR. OWEN:** That was part of it – part of it, yes.

**MR. SIMMONS:** And that in the end there was no change made to the IPR report, not by the team.

**MR. OWEN:** Not by the team.

**MR. SIMMONS:** Not by your team.

**MR. OWEN:** Not by the team.

**MR. SIMMONS:** No.

And in that process did you feel any pressure or under any sort of obligation regarding the content of your report? Or did you feel that your team retained its independence to determine what was in your report?

**MR. OWEN:** I believe we – eventually, once we reviewed – once Westney and myself reviewed those details, I think we felt comfortable that our report was the report from the team.

**MR. SIMMONS:** Mm-hmm.

Okay. And did you feel any kind of obligation to anyone to consider changing your report, or did you feel that that stayed as the independent role of the (inaudible)?

**MR. OWEN:** No, I think quite the contrary. I think after we thoroughly digested it word by word –

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** – we felt more strongly that things should not be changed.

**MR. SIMMONS:** Right. Okay.

And was there ever any pushback to that position?

**MR. OWEN:** Not after –

**MR. SIMMONS:** Did anyone ever contact you after that?

**MR. OWEN:** Not after – there were, as you see from the email string –

**MR. SIMMONS:** Mmm.

**MR. OWEN:** – there were suggestions of getting together –

**MR. SIMMONS:** Mmm.

**MR. OWEN:** – et cetera and – which never took place.

**MR. SIMMONS:** Mm-hmm.

**MR. OWEN:** And once the email came through from Mr. Harrington, he says: I got it, that was the end of –

**MR. SIMMONS:** That was the end.

**MR. OWEN:** That was the end of the subject, no further discussion after that whatsoever.

**MR. SIMMONS:** Right.

And despite that being the position that you've taken, there's been no issue with you being asked to come back and conduct the DG4 IPR?

**MR. OWEN:** Seems not.

I think they respect the fact that the IPR team – you know, all cold eyes teams and IPR teams, they work extremely hard over a relatively short, intense period of time. And I think, generally, the work that these teams do – my experience of the work that they – that I've been involved with, with other major clients, it's generally –

the effort is generally greatly appreciated and they're quite – they're extremely appreciative of the fact that they've had some help to identify the gaps to help them to –

**MR. SIMMONS:** Hmm.

**MR. OWEN:** – get where they need to get.

**MR. SIMMONS:** One specific question. You were asked some questions about the move from SNC-L being purely the EPCM contractor –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – responsible for construction management –

**MR. OWEN:** Yup.

**MR. SIMMONS:** – to it being an integrated project team.

**MR. OWEN:** Yeah.

**MR. SIMMONS:** And I think you described it as being a kind of a gradual process where different functional areas became integrated one after another until ...

**MR. OWEN:** Mm-hmm.

Yeah.

**MR. SIMMONS:** And my question is: What about the actual engineering design of the project?

**MR. OWEN:** Well –

**MR. SIMMONS:** Do you know whether that stayed with SNC-L –

**MR. OWEN:** That stayed with –

**MR. SIMMONS:** – or whether that became integrated?

**MR. OWEN:** That stayed with SNC-Lavalin.

**MR. SIMMONS:** So there was no integration of the function for the significant design of the project?

**MR. OWEN:** My memory is that from the engineering side that that was truly an engineering contractor role and an owner's role. And the engineering contractor did the engineering on the procurement, so that's the E-bit.

**MR. SIMMONS:** Yeah.

**MR. OWEN:** On the P-bit, which was the procurement – which is really a supply chain, say – that was ultimately integrated –

**MR. SIMMONS:** Yes.

**MR. OWEN:** – under Pat Hussey. And then the construction manager was also integrated basically. But the engineering, no, that was –

**MR. SIMMONS:** So if there were any concern about the necessity for good knowledge and experience of hydroelectric projects on the design side –

**MR. OWEN:** Mm-hmm.

**MR. SIMMONS:** – that stayed with SNC-L, where I think there was a recognition that there was considerable experience with those projects.

**MR. OWEN:** Yes, and then also on the owner's side there were experienced individuals who were overseeing that work, basically, in an owner-contractor environment, right?

**MR. SIMMONS:** Okay, yeah.

Thank you very much. I don't have any other questions.

Thank you, Commissioner.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** All right, I think we'll take our break at this stage for 10 minutes. So break for 10 minutes now.

**CLERK:** All rise.

### Recess

**CLERK:** Please be seated.

**THE COMMISSIONER:** Okay, Concerned Citizens Coalition.

**MR. BUDDEN:** Good day, Mr. Owen.

My name is Geoff Budden; I'm the lawyer for the Concerned Citizens Coalition. And as you probably know by now, we are an organization that consists of a number of individuals who have, for many years now, been critics of the Muskrat Falls Project. I don't have a lot for you today but I do have some questions.

The first thing is – and you obviously would be qualified to speak to this – we've heard the term independent project review used, we've heard the term cold eyes review used. Is there a difference between the two?

**MR. OWEN:** Not really, inasmuch that the common thread between the two is that the members, whether they are called member of an IPR or member of a cold eyes team, are external and independent from the day-to-day activities of the project. We're tending to see more the use of the term, cold eyes review, rather than Independent Project Review these days.

**MR. BUDDEN:** Okay, it is a fairly striking term. What I get from this, coming at this from a background essentially zero knowledge of engineering or project reviews, anything of that sort –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – is that you're basically looking for a person or people to come in who have no history here, nothing to gain from the content of the review, nothing to lose from the content of the review.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Would you –

**MR. OWEN:** Yes.

**MR. BUDDEN:** Would you agree with me?

**MR. OWEN:** Yes.

**MR. BUDDEN:** So that's certainly the intent or ideal of either an IPR or a cold eyes review.

**MR. OWEN:** Yes, and I think in the Lower Churchill governance plan, that the words that are used there – which is then repeated in the individual charters for the review – is that the individual should be external to the project. They can be Nalcor or they can be owner's people, but they need to be external to the project.

And some of the cold eyes review or Gate reviews that I have actually participated in, or I've been on the receiving end in my earlier days, some of those teams were made up of solely of individuals from within the owner organization, but had nothing to do with that particular project that they were looking at, yeah.

**MR. BUDDEN:** Okay.

And Mr. Mallam would be a classic example of such a person, I would assume.

**MR. OWEN:** Yes, yes.

**MR. BUDDEN:** Okay.

**MR. OWEN:** Yes, yes.

**MR. BUDDEN:** However, the overriding value of such a review always will be that this is a person who can come at this with nothing to gain or nothing to lose from whatever they say.

**MR. OWEN:** It's not only nothing to gain, nothing to lose, but they come with – without or they come with cold eyes, basically. And they're not involved in the day-to-day activities and, therefore, they're viewing it really from a totally different level basically.

**MR. BUDDEN:** Sure and then both of those elements would be important?

**MR. OWEN:** Yes, yes.

**MR. BUDDEN:** Okay.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Realizing, obviously, that there's only so many people who can comment intelligently on something and some of them will have a history of some sort –



**MR. OWEN:** Mmm.

**MR. BUDDEN:** – I was nevertheless struck by the fact that you – your own involvement as an individual –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – and your company with the Lower Churchill Project began –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – I believe, in 2006 –

**MR. OWEN:** Correct.

**MR. BUDDEN:** – and continues to this day.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Okay.

**MR. OWEN:** Not continuously, but in various chunks of work, yes.

**MR. BUDDEN:** Yes, but you’ve – over the last 12 years you would have been involved on a number of occasions over much of that 12-year period doing work for the Nalcor team on the Lower Churchill Project.

**MR. OWEN:** Yeah, predominantly the Decision Gate 2, Decision Gate 3 and the team effectiveness work, which I could sort of, you know, just group it into major activities, yes, yes.

**MR. BUDDEN:** Okay. And, obviously, Nalcor in hiring you, they’re hiring you not only for your engineering skills, but also for your reputation and your integrity. You would agree with me there?

**MR. OWEN:** Yes. It’s not so much the engineering skills but the project management skills. Yes.

**MR. BUDDEN:** I’m sorry, and your integrity.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Okay?

**MR. OWEN:** Yes.

**MR. BUDDEN:** You’re – if I understand correctly, before the – before 2006, say, is it correct that the only member of the Nalcor project management team you would have known would have been Mr. Harrington?

**MR. OWEN:** No, that’s not correct.

**MR. BUDDEN:** Okay, could you please explain who else you would have known?

**MR. OWEN:** I’ve known Ed Martin since 1990.

**MR. BUDDEN:** Okay.

**MR. OWEN:** When Ed was working – I was project general manager for Hibernia and Ed was working on that project.

**MR. BUDDEN:** Okay.

**MR. OWEN:** I hadn’t known – I hadn’t known Mr. Gilbert before that.

**MR. BUDDEN:** Mr. Bennett.

**MR. OWEN:** Yes. Yes, sorry.

Paul Harrington; Lance Clarke was working on the Hebron project assigned to Chevron when I was under contract with Chevron in 2004-2005. When they were operator of Hebron I did some work for Chevron, so I met Lance Clarke at that stage.

Jason Kean was with Petro-Canada when I participated in the cold eyes review of the SeaRose project over the life of that project, so Jason I knew. Pat Hussey, I knew. Pat had worked on some of the projects I was project manager for. And there are various people still in that organization, bearing in mind that Hibernia was a very big project with a lot of people.

**MR. BUDDEN:** Yeah.

**MR. OWEN:** And I still bump into people who knew me from Hibernia but I didn’t necessarily know them, just an example.

**MR. BUDDEN:** Sure.

**MR. OWEN:** So, okay, I mean, I've been in the industry a long time and therefore there's a lot of people that I've met through the course of all those – that work, basically.

**MR. BUDDEN:** Okay.

You described your relationship with Mr. Harrington as – at least as I noted – a business relationship but not a social relationship.

**MR. OWEN:** Correct.

**MR. BUDDEN:** Okay, how about all those other individuals? Were any of those also social relationships?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay.

**MR. OWEN:** No.

**MR. BUDDEN:** So these were people you would've worked with but not people you would have regarded as friends?

**MR. OWEN:** Friends, yes, but not through a social aspect.

**MR. BUDDEN:** Okay, yeah.

**MR. OWEN:** Yeah.

**MR. BUDDEN:** Yeah.

**MR. OWEN:** Yeah.

**MR. BUDDEN:** All right.

You – I want to ask you a couple of questions, and I'll return to some of this, but right now I'd like to go to the final report, which – at 00504. Perhaps we can call it up; I may not need to refer to it, but it's there if I need to (inaudible).

**THE COMMISSIONER:** Tab 30.

**MR. BUDDEN:** Yes, that is of course the final report of your IPR at DG3.

**MR. OWEN:** Yes.

**MR. BUDDEN:** The August 31. I noted here while I was writing, of course, as Ms. O'Brien was examining you, and I have you – I've noted here that you said: we chose our words very carefully to ensure our message to the Gatekeeper was absolutely clear. You recall saying that?

**MR. OWEN:** I do, yes.

**MR. BUDDEN:** And then of course, we had the intervention by Mr. Harrington that I'll get back to in a moment – but then you said, when you and Mr. Westney communicated on this: once Dick and I reviewed the changes word by word, we came to the conclusion that they were totally unacceptable.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Meaning, of course, the changes that Mr. Harrington was asking you to make to your final report.

**MR. OWEN:** Yes, yes.

**MR. BUDDEN:** Why were they totally unacceptable?

**MR. OWEN:** Because they were – in certain cases, they were modifying – I think there's one slide there where the word recommendation was changed, from recommendation to observation –

**MR. BUDDEN:** Yeah.

**MR. OWEN:** – which we – which really was not correct, it wasn't – I mean, the words below that are a clear recommendation. There was wording in there which really was explaining what the project team were going to – how they were going to follow up on some of the recommendations that we were making – which is not part of the IPR report. I mean, we give them the report and how they close the gaps, that is –

**MR. BUDDEN:** Sure.

**MR. OWEN:** – up to them how to do that. And certainly there were things that were changed, which were not correct to be changed. I mean, when we say – when we said there on one of the slides that the allowances should be – and I'm

paraphrasing – the allowances should be included in the project sanction, changing the words to should be recognized or something along those lines. That was not what – that’s not what –

**MR. BUDDEN:** Sure, okay.

**MR. OWEN:** – the recommendation was.

**MR. BUDDEN:** Okay, so the –

**MR. OWEN:** Broadly speaking. I mean, those –

**MR. BUDDEN:** Yeah.

**MR. OWEN:** – were the sort of areas, yup.

**MR. BUDDEN:** The effect of it as, I believe Mr. Westney seems to have concluded, is that the effect of incorporating these changes into what had presumably been your, what had explicitly been in your final report, would have been to mislead the Gatekeeper, or anybody else who might rely on this altered report.

**MR. OWEN:** I don’t know whether it was concern about misleading the Gatekeeper. I think it was more a concern that we didn’t want the accuracy and the recommendations, the clear recommendations in our report to be adjusted in any way whatsoever.

**MR. BUDDEN:** Okay.

I’m not asking you so much about the intent of Mr. Harrington in asking for those changes –

**MR. OWEN:** Yeah.

**MR. BUDDEN:** – we’ll ask him when he appears before us in November. I guess I’m asking you: the effect of adopting those changes would have been to mislead the Gatekeeper or other readers about the conclusions of the IPR. Would you agree with me there?

**MR. OWEN:** There was a potential for that, I suppose. I hadn’t – we hadn’t thought about it that particular way. We had looked at it insomuch that – it was a request to change what the IPR team had really come up with and that’s why we didn’t want to have those changes.

**MR. BUDDEN:** Okay.

Fair enough. I think you’ve answered my question.

As Mr. Simmons has pointed out, and as you – the terms of the charter made explicit, the purpose of an IPR or a cold eyes review is not an audit, is it? It’s intended, I would suggest, to say: look folks, here’s where you’re to at this point in time, this is what you need to work on.

**MR. OWEN:** Yes.

**MR. BUDDEN:** Do you agree with me there?

**MR. OWEN:** Yes.

**MR. BUDDEN:** Okay.

And so, sometimes you’re delivering news people don’t particularly want to hear.

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** Okay.

I was struck by, I guess, the tone of Mr. – perhaps we can go to P-00505 now, Madam Clerk.

This is, of course, is the email from Mr. Harrington to you and you’ve done it already but I would like you to, perhaps, read it again starting at Derek and ending at four or five month schedule reserve. Just read that first full paragraph –

**MR. OWEN:** Okay.

**MR. BUDDEN:** – if you would, out loud, please.

**MR. OWEN:** “Following the meeting Friday we have taken two actions,” – this is Paul Harrington writing to –

**MR. BUDDEN:** Oh wait, I’m sorry.

This isn’t the one I meant. I meant the original one to him, which was, I believe, 5:04 p.m. or something on August 31st. So that would be actually the bottom of the thread. We might need a bit of help here, I think.

**UNIDENTIFIED MALE SPEAKER:** Here.

**MR. BUDDEN:** We're – yeah, there it is. Yeah, 5:13 p.m. August 31st.

**UNIDENTIFIED MALE SPEAKER:**  
(Inaudible) 12.

**MR. OWEN:** This is Paul Harrington's message to me.

**MR. BUDDEN:** Yes.

**MR. OWEN:** Okay.

**MR. BUDDEN:** Could you read that, please.

**MR. OWEN:** “It was most unfortunate that you used the P1 characterization of the schedule in the meeting this PM. That risk work on the schedule is dated and is in the process of being updated. Jason stated as much. We know that The probability will be less than P50 but for Ed to get the message that it is virtually no chance In such a manner has resulted in a major blow.

“We very recently stressed the importance with Ed of allowing the bulk excavation contract to be awarded prior to sanction and with your statement that causes him to doubt the value of making that step now. The schedule risk model is a simplified activity schedule and some work is needed and the critical path assumed earlier regarding sanction being a prerequisite to bulk excavation award is one such change that is necessary and contributed to the low probability result

“So we need to meet and get this back on track so that we are not alarming Ed on dated information and analysis” –

**MR. BUDDEN:** Okay.

**MR. OWEN:** – “Pls call me Saturday or Sunday.”

**MR. BUDDEN:** Okay.

A couple of points here. Firstly, would not a purpose of an IPR be to alarm, the hearer if there's something that hasn't been done right, perhaps to strike a major blow to incorrect

assumptions? That would be one of the purposes I presume of an IPR.

**MR. OWEN:** Purpose of the IPR is to, certainly, alert the Gatekeeper to significant risks that need to be addressed.

**MR. BUDDEN:** Which is what you in fact did.

**MR. OWEN:** Which is what we did.

**MR. BUDDEN:** Okay.

Were you expecting this email? Like did you have any hint this was coming? Like any glowers at you at the end of this meeting or any hint at all that this was coming?

**MR. OWEN:** I think I mentioned yesterday that this was one aspect of the review that we made, that stood out clearly, very, or perhaps it was this morning, stood out very clearly in my mind. I wasn't expecting the email. I was assuming that the report that we had provided would be taken on face value and the project and the Gatekeeper would move ahead with it.

**MR. BUDDEN:** While – this of course is still August 2012, so this is pre-sanction, there's still lots of time to fix any problems, address any assumptions –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** Have you ever in your career, your experience doing IPRs, doing cold eyes reviews, ever received an email of this sort with this kind of tone to it?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay.

Were you shocked to receive it?

**MR. OWEN:** I wouldn't say I was shocked. I was – I wasn't entirely shocked. I didn't expect the email.

**MR. BUDDEN:** Okay.

**MR. OWEN:** When I got the email I wasn't shocked because as I said it's very clear in my mind, the moment that during the presentation to

Ed Martin that this item was mentioned, and the reaction that happened at that time. So putting that as a backdrop to receiving the email, I wasn't shocked, but I was certainly really somewhat surprised, yes.

**MR. BUDDEN:** 'Cause there clearly is a shoot-the-messenger tone to this. You do see that?

**MR. OWEN:** I see that, yeah.

**MR. BUDDEN:** Yeah. Okay.

The – I realize this is awkward for you; you have an ongoing professional relationship with Mr. Harrington to this day, don't you?

**MR. OWEN:** Yes, he is the project director, and he's asked me to conduct – he's asked me to lead the DG4, yes.

**MR. BUDDEN:** Okay.

**MR. OWEN:** Yeah.

**MR. BUDDEN:** My friend, Ms. O'Brien, asked you if you had discussed your evidence last night. I'm gonna broaden it a little bit. You remember, she asked you if you discussed –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – overnight the evidence –

**MR. OWEN:** Yep.

**MR. BUDDEN:** – you gave –

**MR. OWEN:** Yep.

**MR. BUDDEN:** – yesterday.

**MR. OWEN:** Yep.

**MR. BUDDEN:** I'm gonna broaden that a bit.

From the time you've received notice that you're testifying –

**MR. OWEN:** Yes.

**MR. BUDDEN:** – you know, that you were a likely witness this Inquiry, have –

**MR. OWEN:** Yeah.

**MR. BUDDEN:** – you, Mr. Owen, had occasion to discuss your evidence with Mr. Harrington?

**MR. OWEN:** I haven't discussed my evidence with anyone.

**MR. BUDDEN:** Not Mr. Simmons?

**MR. OWEN:** Mr. Simmons provided some support to me before I was in the interview process but not in the witness process.

**MR. BUDDEN:** Okay.

**MR. OWEN:** I'm without legal counsel.

**MR. BUDDEN:** Okay, well, I won't get into that, though clearly he's not – you're not saying that he is your lawyer –

**MR. OWEN:** No.

**MR. BUDDEN:** – on this?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay.

At any point in this process, perhaps – I wanna be completely clear here.

**MR. OWEN:** Sure.

**MR. BUDDEN:** Have you at any time discussed your potential evidence at this Inquiry with Mr. Harrington?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay, with anybody else in the Nalcor team?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay.

Just Mr. Simmons?

**MR. OWEN:** Mr. Simmons only in terms of the activity surrounding the interview, but not the – not this activity of the witness. I haven't –

**MR. BUDDEN:** Okay.

**MR. OWEN:** I haven't discussed any evidence with Mr. Simmons –

**MR. BUDDEN:** Sure.

**MR. OWEN:** – after the point of the interview.

**MR. BUDDEN:** Okay.

I'm not going to go any farther down in – on this particular thread. I think I've made my points, but a couple of the other things you spoke –

**MR. OWEN:** Mmm.

**MR. BUDDEN:** – of that –

**MR. OWEN:** Mmm.

**MR. BUDDEN:** – I do wish to ask you about.

The – I was struck by your – you indicated you read the report of Dr. Flyvbjerg.

**MR. OWEN:** Hmm.

**MR. BUDDEN:** And again I'm no doubt mispronouncing –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – his name, but you know the report I mean.

**MR. OWEN:** Mm-hmm. Mm-hmm.

**MR. BUDDEN:** And you – I think you used the word – you found it fascinating or found it interesting or some words to that effect.

**MR. OWEN:** There were some interesting concepts in there. Yes

**MR. BUDDEN:** Yeah.

**MR. OWEN:** Absolutely.

**MR. BUDDEN:** And you've worked on megaprojects or large projects for decades?

**MR. OWEN:** Yes.

**MR. BUDDEN:** I guess, what did you – what insights, I guess, did that report offer you? What did you find so interesting about it?

**MR. OWEN:** I think the one aspect that I referred to, in respect to the challenge that we have with risk analysis, was this concept that he talks about: that humans are hard-wired to be optimistic. That was certainly – that was – I think that was the main point that I took away from that report. That was a concept and an approach that I hadn't understood previously, but when I read that, and then I compared it with – as I mentioned, the challenge that we have with risk analysis is to get the range wide enough –

**MR. BUDDEN:** Yeah.

**MR. OWEN:** – that all really tied together so that was interesting. Yeah.

**MR. BUDDEN:** And take –

**MR. OWEN:** That was the main point that I actually took from that report.

**MR. BUDDEN:** And I believe it's a fair summation of his report to say that part of the job of project management of a megaproject is to counterbalance that inherent optimism with robust review procedures, robust gatekeeping, robust project reviews?

**MR. OWEN:** Yes. Absolutely.

**MR. BUDDEN:** Yes. Okay.

**MR. OWEN:** Absolutely.

**MR. BUDDEN:** So you saw yourself and your role in this – or is it fair to say you saw yourself and your team and the role of your team as being part of that robust attempt to counteract the normal tendency – the normal optimism bias as the good doctor referred to it?

**MR. OWEN:** Yes, particularly when we were – particularly when we looked at the – let's say the (inaudible) documentation and the document that wasn't quite where it needed to be, and then they say – well, yeah, you know, we'll have that done next week. Well – normally, next week, you know, is – never comes.

So yes, that is the – that's the – that's what the IPR team bring is – they say, well, you know, next week may be a good plan, but that's why, on DG3, we put in that very specific column that – although the document isn't – or the focus areas is not closed out we have a column there that says it should be closed out within 60 days.

**MR. BUDDEN:** Okay.

**MR. OWEN:** And so that was really to try to force them, rather than to – because anyone working on a project gets extremely busy, and doing the paperwork is – and getting the procedures in place, et cetera – is a very time consuming effort.

**MR. BUDDEN:** Okay.

Did that report give you any retrospect of insights into your experience at DG2 or DG3 with the Muskrat Falls team?

**MR. OWEN:** New experiences or new insights or things that I hadn't seen before? I don't think there was anything in either of the reviews that I hadn't come across before. Just thinking in terms of the interface between the owner and the contractor. I'd seen that sort of problem before. The challenge to get the deliverables complete, I mean – no, there was nothing in those two reviews that leapt out to me as absolutely unique that I hadn't seen before.

**MR. BUDDEN:** Okay.

So you encountered this kind of optimism bias before, perhaps?

**MR. OWEN:** Oh, yes.

**MR. BUDDEN:** Okay.

If I understood your evidence correctly, you were asked to report verbally on certain points as opposed to in writing? Did I understand you correctly?

**MR. OWEN:** Yeah. Well, what we do when we present the findings (inaudible) to the Gatekeeper, we have a – we have the PowerPoint section of the final report, and we present that to the Gatekeeper. And as you're presenting that, obviously – that's a condensed

list of recommendations or observations. Obviously, if there's anything that you feel that needs to be verbally said, then in the course of the presentation, that's when you do that, basically.

**MR. BUDDEN:** Yeah.

**MR. OWEN:** Yeah.

**MR. BUDDEN:** Perhaps I'll be a little clearer. Were you, at any point, directed or encouraged or requested to make part of your report a verbally rather than reduce it to writing?

**MR. OWEN:** No.

**MR. BUDDEN:** Okay.

**MR. OWEN:** Not that I recall, no. Absolutely not.

**MR. BUDDEN:** You're certain of that?

**MR. OWEN:** Not that I – as far as I can recall, I don't recall being – having that instruction, nope.

**MR. BUDDEN:** Okay.

You – and knowing a number of the players in the Muskrat Falls Project, Mr. Martin, Mr. Harrington –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – for years at this point, and I suppose by 2012 you knew them all to some degree –

**MR. OWEN:** Mm-hmm.

**MR. BUDDEN:** – do you believe that the project management team was suffering from optimism bias with respect to the schedule, the cost of the project?

**MR. OWEN:** At the time that we did the reviews I don't think so. Looking at where the project is now and looking backwards from that, really possibly that when we did the reviews we felt that it was pretty realistic in terms of the work that they were doing. No, I wouldn't say at

the reviews we felt any sort of over-optimistic bias at that stage.

**MR. BUDDEN:** Other than for scheduling.

**MR. OWEN:** Yeah, but that was not so much an optimistic bias, that was really the results of the risk analysis basically that showed that the mid-2017 date was a low probability. That was coming out of the output from the risk analysis, yeah.

**MR. BUDDEN:** Okay.

Did they seem to accept that risk analysis or were they rejecting it?

**MR. OWEN:** They were going to redo the risk analysis, that's all I can say. So they, obviously, had an intent to redo the risk analysis. I've got no idea whatsoever whether that was done or what the results of that risk analysis was. I have no knowledge of that, but that was an action that the team were undertaking after the review so ...

**MR. BUDDEN:** And they were redoing it because they were rejecting the existing one.

**MR. OWEN:** I've got no idea why they were going to redo it.

**MR. BUDDEN:** Okay. Thank you.

I have no questions – no further questions.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** Edmund Martin.

**MR. SMITH:** Harold Smith for Edmund Martin.

The IPR charters that are referred to in both of your reports –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – how would you, in lay terms, describe what the charter is? How – what would you – how would you describe that? Is that like the rules of engagement or ...?

**MR. OWEN:** It's basically the terms of reference, I suppose –

**MR. SMITH:** Terms of reference.

**MR. OWEN:** – from the team. It spells out the key focus areas that the team need to be concentrating on. It spells out the timelines for the review. It spells out the team that will perform the review, yeah.

**MR. SMITH:** And is an IPR considered a best practice in terms of these large projects?

**MR. OWEN:** Yes, I think – yes. The answer to that is, yes. And I think it was mentioned as a best practice in one of the exhibits you made in the Grant Thornton report. I'm not sure, but it certainly is a best practice.

**MR. SMITH:** Yeah.

**MR. OWEN:** It's pretty well adopted now exclusively for, actually, projects. I mean, it hasn't always been used. The first time I came across it was in – as part of the ExxonMobil process was in mid – the mid-'90s. But to some degree or other there's always been a cold eyes review activity really.

**MR. SMITH:** Yeah.

**MR. OWEN:** But the formalized Gate process that we now see, that was developed over time.

**MR. SMITH:** And I believe other counsel have pointed out that the IPR is essentially to give the Gatekeeper an independent, or presumably independent, understanding as to whether or not they're in a position to move forward, either through the Gate or through the investigation.

**MR. OWEN:** Yes, it's part of the – it's one component of a host of decisions that the Gatekeeper needs to feel comfortable in place, but it's only one component of what the Gatekeeper needs to know about, basically.

**MR. SMITH:** And, again, I'm sure it's much more complex than I'm going to suggest, but my understanding is that this is more a process review as opposed to an in-depth analysis of what the results of that process or what those processes are.

**MR. OWEN:** Yes, that's true.



**MR. SMITH:** Okay.

And in the context of processes, you can flag where processes are falling down or not necessarily achieving what you – what the Gatekeeper would expect in order to move on.

**MR. OWEN:** Yes, not only what the Gatekeeper would expect, but what is laid down for the deliverables that have to be in place, what the project team have to deliver, basically, yes.

**MR. SMITH:** Now – and part of that is looking at the risks of the project. Is that not correct?

**MR. OWEN:** Yes.

**MR. SMITH:** Were you involved in any of the cost or schedule mitigation following your DG – sorry, your independent reviews?

**MR. OWEN:** No.

**MR. SMITH:** Either in DG2 or DG3?

**MR. OWEN:** No.

**MR. SMITH:** You were not?

**MR. OWEN:** No.

**MR. SMITH:** Okay.

**MR. OWEN:** No.

**MR. SMITH:** And in the context of your – it was suggested in your evidence yesterday and again today that you had some involvement or review of the DG3 packages. Were you retained to do that, to review the packages for DG3?

**MR. OWEN:** Which packages are you referring?

The support packages?

**MR. SMITH:** The support packages, yeah.

**MR. OWEN:** We did – we had no access to the – we had no involvement in that and I personally had no involvement in the packages.

**MR. SMITH:** Okay.

**MR. OWEN:** And I think I made that statement yesterday, but I'm now wondering whether or not I made it clearly enough, because you've now raised the question again, Harold, so ...

**MR. SMITH:** Okay, so –

**MR. OWEN:** No, once the final report is issued for both of those, the team was actually disbanded and there was no further activity associated with the IPR team with regard to the formulation or the packaging of the support package that was put to the board.

**MR. SMITH:** No, I understood, in answer to my learned friend, Mr. Ralph, that you had occasion or something to look at the support packages for DG3 and made some commentary about them?

**MR. OWEN:** Oh –

**MR. SMITH:** Am I wrong?

**MR. OWEN:** I looked at the exhibit.

**MR. SMITH:** Oh, at the exhibit –

**MR. OWEN:** Yes.

**MR. SMITH:** – that happened to be on the website.

**MR. OWEN:** Yes, yes, yes. Oh yes.

Yeah, that was part of my sort of prep for these sessions, I looked at the exhibit. And certainly we need to make that clear that, no, it wasn't part of the – that wasn't part of my mandate at all. I looked at the exhibit and I found that the – I found that I would have expected to have seen other things in those packages, basically.

**MR. SMITH:** Now, I draw your attention to the, I guess, the transcript of your interview –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – back in September of 2018.

**MR. OWEN:** Yes.

**MR. SMITH:** And I was curious to have you explain, if you could, okay, a reference on page 49 and page 50 of that transcript.

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** I don't know, Counsel, if that's an exhibit or not. Yeah, I think it's just the transcript.

**MS. O'BRIEN:** Transcripts are not normally exhibited.

**MR. SMITH:** Yeah. Okay.

So I'll have to read it to you, okay?

**MR. OWEN:** Okay.

**MR. SMITH:** Now, it says – and I'll start at a – hopefully a reasonable spot.

And it says: Ms. O'Brien says: And you concurred that would be a recommendation to do it in the way that they had planned to do it, and that is from a statement that's also contained in your report, which effectively says that the plans have – and I'm reading, again, from page 49, excuse me, Ms. Owen – sorry, Mr. Owen says: It could be but not necessarily – oh gosh, I got to find the right spot here.

Ms. O'Brien – I'll pick it up at this point: And then management reserve, I understood, covered the strategic (inaudible) not necessarily, not necessarily. And then Ms. O'Brien: Okay. Mr. Owen: It could be but not necessarily. As I had not seen the sanction package, I cannot really comment on the management reserve, okay?

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** So it would appear that it was suggested to you that the management reserve would be, according to your report, actually placed in the cost.

**MR. OWEN:** Yes, that's what our recommendation was –

**MR. SMITH:** Right.

**MR. OWEN:** – that the management reserve – and bearing in mind that strategic risk is

normally in the management reserve. So, sometimes, the word "strategic risk" gets left out, but strategic risks go into the management reserve and our recommendation was that that should be included in the sanction cost.

**MR. SMITH:** Now, are you suggesting that management reserve had to be – for the sake of argument, if \$6.2 billion did not include the strategic risk, I think it's been suggested –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – and there was a management reserve, which I understand your review would conclude that there was both a management reserve and a schedule reserve.

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** And you're going to include the management reserve in the 6.2 or on top of it, if it's not there?

**MR. OWEN:** If it's not there, it would have been – it – my experience is that in addition to the contingency which is, fundamentally, sort of tactical type of adjustments, there is a recognition that all projects have strategic risk. And I think we spelt out the type of activity that would constitute a strategic risk.

And my experience is that that is included in the sanction amount as a management reserve. And the way that that is used is that the amount is made up of various risks that are expressly made with an amount – with a relative amount of money, actually, dollars associated with that risk.

When the project comes across one of those strategic risks, then the project manager will go to the management and request that the amount of money that is allocated to that risk is made available because the project has incurred that risk.

**MR. SMITH:** Have you ever run into –

**MR. OWEN:** Yeah.

**MR. SMITH:** – the situation where the management risk is withheld from the capital

cost, if you will, of the project to prevent contractors or others from trying to access it?

**MR. OWEN:** I've never – in my experience the management risk or the management reserve has always been included in the sanctioned amount.

**MR. SMITH:** Now, the reason I'm putting this forward because Dr. Flyvbjerg –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – talked about this strategic risk which is often part of – quote, unquote – management reserve –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – indicating that there's a principle recognized in the construction world referred to as a red meat syndrome. You put the –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – meat out there in front of –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – hungry contractors and –

**MR. OWEN:** Yup.

**MR. SMITH:** – they're going to look for it.

**MR. OWEN:** Yup.

**MR. SMITH:** And, as a result, there's some concern about putting a level of management risk – or sorry, management reserve – into the actual numbers.

**MR. OWEN:** I read that. I don't fully subscribe to it and I'll explain why, if I may.

**MR. SMITH:** Sure.

**MR. OWEN:** Because I think it's important that the way that the cost estimates are built up, it will be almost impossible for any contractor to know, relative to his scope of work, exactly what the owner's estimate is for that work. Because the owner estimates the work and puts

allowances into that number to reflect what the owner believes the contract value is likely to be.

In addition to that, as I mentioned yesterday, below the line at the bottom there is an overall contingency. That contingency is a risk-based contingency and is made up of individual sums of money to address risks that have come out of the quantitative risk analysis. So even if there was a contingency in there of a hundred million, there's no way that a contractor will ever know what proportion of that hundred million is applicable to his work.

So, I really – the way that risk is handled and the way contingency is handled and the way that the estimate is built up, I don't subscribe to the fact that if the money is in the sanction, then the individual contractors know how much money they've got ready to go at.

**MR. SMITH:** But isn't the purpose of creating a management reserve –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – is to ensure funding –

**MR. OWEN:** Yes.

**MR. SMITH:** – is available for that reserve.

**MR. OWEN:** Absolutely.

**MR. SMITH:** Okay.

And if there are means of funding the reserve or known –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – funds –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – for the reserve –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – I take it it's less important to have it in the sanction number?

**MR. OWEN:** Could you just repeat that (inaudible).

**MR. SMITH:** Well, I'm – what I'm suggesting to you is that –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – that the whole purpose of putting the management reserve into the sanction number is to ensure that there's sufficient funds to cover the management reserve.

**MR. OWEN:** Correct.

**MR. SMITH:** Right.

**MR. OWEN:** Correct.

**MR. SMITH:** So if there are sufficient funds –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – known to the Gatekeeper –

**MR. OWEN:** Yes.

**MR. SMITH:** – okay – to cover the management reserve –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – there's really no real purpose of putting it into the sanction number is there?

**MR. OWEN:** It depends – I understand where you're coming from. It depends very much how the total cost of the project is actually going to be funded, and I have to admit that maybe – a project of this nature, maybe this will be handled a little differently than the projects I'm used to. With the projects I'm used to the management reserve is part of the approved cost of the project and stays that way.

**MR. SMITH:** In the context of a private sector oil project?

**MR. OWEN:** Correct.

**MR. SMITH:** Right.

**MR. OWEN:** Correct. Now, as I've said, there may well be – and I don't know, but there may be a difference. As you've just mentioned, in private sector oil projects, management reserve

is included in the money, that the proponent goes to the co-venturers, the other participants, and requests funding for the total cost of the project, including contingency and management reserve.

**MR. SMITH:** And I – going to follow up now again on your transcript –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – and I will maybe ask you to suggest that it was put to you that the strategic – sorry, the management reserve and the schedule reserve be actually added to the –

**MR. OWEN:** Yes.

**MR. SMITH:** – to the sanction number?

**MR. OWEN:** Yes.

**MR. SMITH:** Okay.

And it was put to you by Ms. O'Brien again at page 49, is this a case of the Gatekeeper not accepting your recommendation, because you –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – discovered that it wasn't in the – or at least –

**MR. OWEN:** Well, well –

**MR. SMITH:** It was proposed to you at least that it wasn't in the numbers.

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** Okay?

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** And your comment – and I ask you to comment on this.

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** You said: No, it's a case of the Gatekeeper having information available and then selecting whichever information he or they want to put into the sanction cost.

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** It wasn't our recommendation that those things go in.

**MS. O'BRIEN:** I think out of fairness to the witness, you should let him –

**MR. SMITH:** Okay.

**MS. O'BRIEN:** – read perhaps a little further in his transcript.

**MR. SMITH:** Sure.

**MS. O'BRIEN:** I can provide that.

Now, Mr. Owen –

**MR. OWEN:** Thank you.

**MS. O'BRIEN:** – I think he started around there and –

**MR. OWEN:** Started around there (inaudible) –

**MR. SMITH:** Yeah.

**MS. O'BRIEN:** – continues (inaudible) –

**MR. SMITH:** I actually started at the top third of the page, you know, Ms. – you know, where you said okay.

**MR. OWEN:** Okay.

**MR. SMITH:** I thank you, Ms. O'Brien, because it is quite difficult to –

**MS. O'BRIEN:** It is, and it's – the question is re-asked –

**MR. SMITH:** Yeah.

**MS. O'BRIEN:** – again, and he provides another answer, so (inaudible).

**MR. OWEN:** Okay.

So it's Ms. O'Brien saying in this case of the Gatekeeper – is this in a case of the Gatekeeper not accepting your recommendation?

What I said there was: No, it's a case of the Gatekeeper having information available and then selecting whichever information he or they want to put into the sanction cost.

**MR. SMITH:** My understanding –

**MR. OWEN:** Yes.

**MR. SMITH:** – that it wasn't a recommendation, it was –

**MR. OWEN:** The – yes. The last sentence there, it says – from my statement: It wasn't our recommendation that those things go in.

Well, that was – at that point, that was my memory, but in actual fact, the IPR report quite clearly says that management reserve and schedule reserve should be part of the sanction.

**MR. SMITH:** Yes, I don't think though that, in fairness, that that's a recommendation of the IPR team. That is part of the processes that you were reviewing. That was suggested in one of the processes that you were reviewing and you confirmed or agreed with that.

**MR. OWEN:** Yes, there was a document that – I can't recall the name of the document, but there's a document referenced in our finding that was a project document –

**MR. SMITH:** Right.

**MR. OWEN:** – that clearly recommended. It wasn't only we concurred with the recommendation in that document that those should be included.

**MR. SMITH:** Perhaps you could turn to the – page 50, at the top of the page. As you're continuing – your commentary continues.

**MR. OWEN:** Well, the recommended was that which we concurred with the plan, and their plan was to include management reserve and schedule reserve. They had – yes, okay. Well, that's basically what I've just tried to explain: that there was a project document –

**MR. SMITH:** Right.

**MR. OWEN:** – which said management reserve and schedule reserve should be included and that’s what – so ...

**MR. SMITH:** Yeah.

Could you continue on beyond that to: Ms. O’Brien, I know –

**MR. OWEN:** Yeah.

**MR. SMITH:** – says I know, then you say whatever they chose from that to put in the sanction –

**MR. OWEN:** Mm-hmm.

**MR. SMITH:** – that is the Gatekeeper’s prerogative. It doesn’t have to –

**MR. OWEN:** Yeah.

**MR. SMITH:** – they don’t have to.

**MR. OWEN:** That is the Gatekeeper’s prerogative. The IPR team, based on the project document that said management reserve, schedule reserve should be included. We concurred with that.

**MR. SMITH:** Yes.

**MR. OWEN:** It is then the Gatekeeper’s decision.

**MR. SMITH:** To do it or not do it.

**MR. OWEN:** Do it or not do it.

**MR. SMITH:** And that’s his prerogative?

**MR. OWEN:** And that’s his prerogative.

**MR. SMITH:** Thank you, Sir.

That’s all the questions I have.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** Kathy Dunderdale?

**MS. E. BEST:** No questions, thank you.

**THE COMMISSIONER:** Former Provincial Government Officials ’03-’15?

**MR. T. WILLIAMS:** No questions.

**THE COMMISSIONER:** Thank you.

Charles Bown, Julia Mullaley?

**MR. FITZGERALD:** Good afternoon.

Mr. Owen, I represent Charles Bown and Julia Mullaley. I’m going to be brief. I just have a couple of clarification questions for you.

**MR. OWEN:** Mm-hmm.

**MR. FITZGERALD:** And if I could have Exhibit P-00486, please, on page 6.

Now, Ms. O’Brien took you through this exhibit yesterday.

**MR. OWEN:** Yes.

**MR. FITZGERALD:** And on number 33 there, there’s a reference that the “Shareholder requirements for equity and supporting debt have been communicated.” I just want to confirm that your evidence yesterday was that this was through a member of Nalcor, not a government official – Derrick Sturge, I believe.

**MR. OWEN:** As I remember, yes. Yes.

Yes, we didn’t talk to any government officials.

**MR. FITZGERALD:** Yeah. It’s also my understanding that Mr. Harrington was the – described as the single point of contact.

**MR. OWEN:** Yes.

**MR. FITZGERALD:** I guess that’s typical of how these projects would work, IPRs would work in your experience, or isn’t it?

**MR. OWEN:** Yes. Yes. Yes.

**MR. FITZGERALD:** In dealing with a single point of contact, have you ever experienced difficulties with respect to that single point of contact in the relationship?

**MR. OWEN:** No.

**MR. FITZGERALD:** So I'm only asking the question, because you're going in as an IPR team and you're going in to assess a third party, essentially.

**MR. OWEN:** Mm-hmm. Mm-hmm.

**MR. FITZGERALD:** And I can imagine there's a certain level of tension when you're going to do that. Would you agree?

**MR. OWEN:** There can be a certain level. We try to explain to the team that we're really there to help them, we're really not there to criticize them, we're really there to help them. And I think the vast majority of projects these days, they've been subjected to – or the individuals managing projects these days – have been subject to many cold eyes reviews and IPRs that they understand the purpose of that, so normally there is no tension, basically, really, from that regard.

**MR. FITZGERALD:** Was there any tension in this case?

**MR. OWEN:** No.

**MR. FITZGERALD:** No? Despite the email that came from Mr. Harrington after the final report was delivered?

**MR. OWEN:** There was no tension during the preparation of the report. There was obviously a concern from Mr. Harrington, the way that we commented in the review to the Gatekeeper with regard to the schedule.

**MR. FITZGERALD:** Now I know there's a single point of contact with respect to Mr. Harrington, but you also did meet with other members of the project team.

**MR. OWEN:** Oh yes, yes.

**MR. FITZGERALD:** Did other members of the project team raise any concerns with you with respect to the project, or did everything have to funnel through Mr. Harrington?

**MR. OWEN:** No, the –

**MR. FITZGERALD:** I'm just concerned about how it works.

**MR. OWEN:** Oh, I see.

**MR. FITZGERALD:** Right.

**MR. OWEN:** Okay, okay.

How it works, is that we carry out interviews and as you could see from the documentation there, there was probably – we interviewed probably 20 or 30 people on the project, not only from the (inaudible) project – not only from the project team, but also from the contractor, and they are quite free to express any opinions that they have – and do so.

**MR. FITZGERALD:** Now, just a clarification from Mr. Smith's evidence.

It's my understanding that you did not receive the DG2 or DG3 support packages –

**MR. OWEN:** Correct.

**MR. FITZGERALD:** – and that you only received these when you were preparing for the –

**MR. OWEN:** I only looked –

**MR. FITZGERALD:** – proceedings.

**MR. OWEN:** – at those – I only looked at what there was that was in the exhibits.

**MR. FITZGERALD:** And correct me if I'm wrong, I thought I saw your evidence yesterday, where you would've expected to receive, under the terms of your retainer, a copy of those support packages?

**MR. OWEN:** It is mentioned in one of the – it's either mentioned in the governance plan – it's mentioned in a Nalcor document that I saw, that the decision support package would be made available or the IPR team would be expected to review it. I don't remember the exact words, but it is clearly stated in one of the exhibits that it is something that – that that exhibit says, that the IPR team would see that package.

But bearing in mind that that package was really prepared several months after the IPR team had completed their work, that's probably the reason why the package was not given to the IPR team. I mean, there could've been a table of contents, for instance, given to the team, but we received nothing from – nothing to do with the Gate support package.

**MR. FITZGERALD:** Thank you.

Just as a matter of interest. I know you talk about a lot of experience you've had with oil companies. That's –

**MR. OWEN:** Yes.

**MR. FITZGERALD:** – well-documented. Have you ever been involved in an IPR review for a Crown corporation, or something tied to a public entity with a public aspect?

**MR. OWEN:** No.

**MR. FITZGERALD:** Those are all my questions. Thank you.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** Todd – Robert Thompson, rather?

**MR. COFFEY:** Well it would be – good afternoon, Mr. Owen. My name is Bernard Coffey. I represent Robert Thompson. Really – I believe, two areas I want to ask you about – just to clarify my understanding of it. The IPR team in relation – in your work in DG2. Did you see any risk analysis for DG2?

**MR. OWEN:** Um –

**MR. COFFEY:** You know, in preparing your –

**MR. OWEN:** – yeah. Yeah.

**MR. COFFEY:** – report?

**MR. OWEN:** I can't remember. I'd have to go back through the findings – whether or not we saw a risk analysis at that stage. I would've expected that, in and around that time, a risk analysis would've been performed, but I can't –

**MR. COFFEY:** Okay –

**MR. OWEN:** We certainly – I don't believe that we, in either of the Gates, that part of the – that documents that were delivered to the IPR team – I don't think the quantitative risk analysis, at either of those Gates, was one of those documents.

**MR. COFFEY:** Yes.

**MR. OWEN:** I don't believe so.

**MR. COFFEY:** And I have the same question then for DG3. And I understood, though, that you had not received the QRA –

**MR. OWEN:** Correct.

**MR. COFFEY:** – for when you did your DG3 work.

**MR. OWEN:** Correct.

**MR. COFFEY:** When did you first learn that you would not be receiving the QRA for your DG3 work?

**MR. OWEN:** I don't believe that it was in the list of documents that was due – ready to be given to us.

**MR. COFFEY:** When you went to those documents, would you have expected initially to have found it there?

**MR. OWEN:** Not necessarily the document itself, but what we did when we interviewed the individuals – we did ask them whether or not the risk analysis had been performed, and what sort of very high-level – what type of outputs were derived from the risk analysis. I don't believe that we would have wanted to look at the risk analysis itself.

**MR. COFFEY:** Well, the obvious question is, why not?

**MR. OWEN:** Because we would have ascertained that a risk analysis had been done. We would have attained through the interview what the outcome from the risk analysis was. And as we say, we don't have the time to thoroughly go through all of the documents. So



providing the risk analysis has been done and provided that the individuals can communicate to us what the output was from that, that's normally quite sufficient for us.

**MR. COFFEY:** Did you, during the DG3 process, make any effort to ascertain the date of the existing QRA?

**MR. OWEN:** Um –

**MR. COFFEY:** I.e., how old it was?

**MR. OWEN:** – we knew that it would – we knew that, at the time of the DG3 – we knew that they were in possession of a risk analysis and they had received it relatively recently, and we knew that – and we knew from interviews that they were proposing to do a new risk analysis. That's what we understood from the interview sessions.

**MR. COFFEY:** So you understood – to summarize in relation to that – you understood that they, meaning Nalcor, had received the QRA –

**MR. OWEN:** Yes.

**MR. COFFEY:** – the most recent of the existing one –

**MR. OWEN:** Yeah.

**MR. COFFEY:** – relatively recently –

**MR. OWEN:** Yeah.

**MR. COFFEY:** – and you were told by Mr. Kean that they proposed or intended to do another one, a new one.

**MR. OWEN:** Yes.

**MR. COFFEY:** You, I believe a couple of times in your evidence, commented upon – and then you'd been asked about – Dr. Flyvbjerg's report done for this Commission.

**MR. OWEN:** Mm-hmm.

**MR. COFFEY:** And you have read that?

**MR. OWEN:** Yes, I have read it.

**MR. COFFEY:** And the thing that stood out to you, I believe, was – I have it correctly – his observation that humans are hard wired to be optimistic.

**MR. OWEN:** Mm-hmm. Yes.

**MR. COFFEY:** Okay.

And, well, what I'm gonna ask you about in relation to that is this, is that why – because you would've only read his report, presumably, within the past, well, two months.

**MR. OWEN:** Well, the past –

**MR. COFFEY:** Or even less.

**MR. OWEN:** Less, yeah.

**MR. COFFEY:** Even much less –

**MR. OWEN:** Mm-hmm.

**MR. COFFEY:** – because whenever it was posted online –

**MR. OWEN:** Yes, yeah.

**MR. COFFEY:** – that's when you saw it.

**MR. OWEN:** Yeah.

**MR. COFFEY:** So, would I be correct then in concluding or inferring from that – your comment in that regard, that it hadn't occurred to you before that humans are hard wired to be optimistic.

**MR. OWEN:** It hadn't occurred to me in that context. What had occurred to me, as I mentioned, was that the challenge that we have with risk analysis is to get the range of what – how bad or how good something can be – to get that range wide enough.

Now, so that's what – that goes back a long ways with the risk analysis work that I've been – I haven't actually done the work, but I've had the – I've had consultants doing that work and I've always discussed that with them. But I hadn't made the link between – I didn't know that humans were hard wired to be optimistic.

**MR. COFFEY:** And –

**MR. OWEN:** That's probably why we survive, I suppose.

**MR. COFFEY:** Yeah, and then I believe that's probably why the observations that – or explanations for it. But why I'm raising that is this –

**MR. OWEN:** Mm-hmm.

**MR. COFFEY:** – with you is because of your professional background and, in fact, the work, I gather you've done over most of the past 20 years, which is, as your job is to – part of your job anyway at times –

**MR. OWEN:** Yeah.

**MR. COFFEY:** – is to go in –

**MR. OWEN:** Yeah.

**MR. COFFEY:** – and review the – presumably the reasonableness of the process.

**MR. OWEN:** Yes.

**MR. COFFEY:** And the outcome, the then known outcome of the process, the estimates and so on.

**MR. OWEN:** Mm-hmm.

**MR. COFFEY:** And up until reading, which would be since the middle of September of this year, up until reading Dr. Flyvbjerg's report, it – you had not made that connection.

**MR. OWEN:** I hadn't made that connection; however, every risk analysis, quantitative risk analysis, every process or every time I've been involved in a project where a quantitative risk analysis is gonna be performed, right way back to the mid-90s, I suppose, I emphasize to the consultant or to the risk people that are doing the quantitative risk analysis, I emphasized my concern that unless we get those ranges wide enough, we're going to get a – we're not going to get a realistic probability curve such that it will generate the appropriate level of (inaudible) contingency.

So – and on a project that I'm currently supporting for Nalcor Oil and Gas, the risk manager that is performing the quantitative risk analysis looks at me and says: I can't remember, Derek, how many times you've told me that. But – so it is something that I continuously stress, that that's really a very important aspect. Otherwise, the risk analysis – the curve that is produced will not generate the appropriate level of (inaudible) contingency because the curve will be too steep as opposed to not so steep.

**MR. COFFEY:** And, you know, following up on just this aspect of the matter –

**MR. OWEN:** Mm-hmm.

**MR. COFFEY:** – had you – before you read Dr. Flyvbjerg's report for this Commission, had you ever read anything else by him?

**MR. OWEN:** No.

**MR. COFFEY:** Okay. And this is a man who, as I understand it – well, when he testified, he's involved with the Oxford University and runs their program dealing with megaprojects. You had never encountered him before?

**MR. OWEN:** No, I hadn't.

**MR. COFFEY:** Thank you very much.

**THE COMMISSIONER:** Thank you.

Todd Stanley and Terry Paddon?

**MS. VAN DRIEL:** No questions, Commissioner.

**THE COMMISSIONER:** Okay. Consumer Advocate?

So, before we begin, Mr. Hogan, I keep – you keep standing up just as it's around 12:30 and I feel like, at times, I'm cutting you short. I don't want to do that.

**MR. HOGAN:** No –

**THE COMMISSIONER:** So –

**MR. HOGAN:** – I haven't felt that you've cut me off.

**THE COMMISSIONER:** Okay. I don't want to do that today.

Did you – you know, are you going to be longer then, say, 10 minutes or so or do you feel you're going to be longer? If you are, no problem, we'll just –

**MR. HOGAN:** No, I think we should push through 'cause I'm the last one to go, I think, unless – well –

**MS. O'BRIEN:** I'm (inaudible).

**THE COMMISSIONER:** And you do have some redirect? So it's up to you. I –

**MR. HOGAN:** I'm happy to keep going 10 or 15 minutes tops, I think.

**THE COMMISSIONER:** Okay. Go ahead.

**MR. HOGAN:** Mr. Owen, my name is John Hogan, I'm counsel for the Consumer Advocate.

We're on P-00486, if we can just scroll up to number 16, please.

So, Mr. Owen, this one says that: "That arrangements for power sales are advanced to an acceptable state." Now, Ms. O'Brien took you through this yesterday.

I'm just wondering what power sales are you referring to here in this document?

**MR. OWEN:** This focus area was prepared by the project and –

**MR. HOGAN:** The project team?

**MR. OWEN:** The project team, yes. Yeah. And I really can't answer that.

**MR. HOGAN:** Okay, so –

**MR. OWEN:** It's really beyond my expertise and that's why it's in the support column for John Mallam, actually.

**MR. HOGAN:** Okay, and so do you have any understanding about why this is relevant to the project as a whole?

**MR. OWEN:** Only that it would be relevant to the actual decision-making process to proceed, I suppose. It's – but that's all. I mean, it could be, maybe one of the factors which the Gatekeeper has to be able to tick off depending on what the decision support package requires him to tick off for the board.

**MR. HOGAN:** Is there – it sounds like there's –

**MR. OWEN:** That's all I can say about it.

**MR. HOGAN:** It sounds like you're putting less relevance on that item than, say, other items in this list.

**MR. OWEN:** Yes, yes.

**MR. HOGAN:** That's fair to say?

**MR. OWEN:** Yes, yes.

**MR. HOGAN:** Do you recall this coming up in – with – in any of your interviews?

**MR. OWEN:** No, no, no.

**MR. HOGAN:** Do you recall any – getting any specific documents in relation to this item?

**MR. OWEN:** I don't recall.

**MR. HOGAN:** Okay. Now – so how do you decide what is less relevant than other items?

**MR. OWEN:** Pardon?

**MR. HOGAN:** How do you decide who makes a decision that this is less relevant in terms of your analysis?

**MR. OWEN:** It's something which – the ones that we consider the most relevant are the ones that the project team have an obligation to complete that focus area before they can go through the Gate.

We realize that there are other aspects that have to be taken into consideration, and the next one, item 17, is a similar one. And in retrospect, we could've possibly requested that the project take those two items out of the charter for the Independent Project Review team to look at, because they are really beyond the scope of –

**MR. HOGAN:** Yep.

**MR. OWEN:** – what the team (inaudible).

**MR. HOGAN:** Fair enough, and do you recall anyone specifically telling you to – you know, how to prioritize those? Like, did Mr. Harrington say that to you?

**MR. OWEN:** No. No, no, no. No, that would be our own basic conclusion, yeah.

**MR. HOGAN:** That was your own conclusion?

**MR. OWEN:** Yes.

**MR. HOGAN:** You figured that out as you went through the process?

**MR. OWEN:** Yes, yeah, but we would've indicated by this matrix here that the team really –

**MR. HOGAN:** Yeah.

**MR. OWEN:** There's no one on the team that has that expertise, because otherwise it would've been a radius for someone or other right?

**MR. HOGAN:** Thank you.

**MR. OWEN:** Yeah.

**MR. HOGAN:** An issue I asked Mr. Mallam about yesterday was the water management issue.

Are you aware of this issue?

**MR. OWEN:** Oh, only aware from what I've read from time to time.

**MR. HOGAN:** Okay.

So this wasn't discussed at any of the interviews?

**MR. OWEN:** No.

**MR. HOGAN:** You didn't get any documents about that from anyone?

**MR. OWEN:** No.

**MR. HOGAN:** Never discuss it with Mr. Harrington, is that correct?

**MR. OWEN:** As far as I know, we did not discuss water management.

**MR. HOGAN:** Okay.

Again, Mr. Mallam gave evidence yesterday that the team that you reported to – I went through a list of individuals with him that were at that interview meeting. I think only one of those individuals would've had prior experience in hydroelectric projects.

Did you hear that evidence from Mr. Mallam yesterday?

**MR. OWEN:** The individuals, I think – the project individuals?

**MR. HOGAN:** Yes.

**MR. OWEN:** Yes, yes.

**MR. HOGAN:** Do you agree with that?

**MR. OWEN:** Yes. Ron Power, I think, was the one exception that had hydro experience, yeah, and we knew that basically.

**MR. HOGAN:** So presenting your findings to –

**MR. OWEN:** Mm-hmm.

**MR. HOGAN:** – the project team, who you know does not have very much hydroelectric experience, did that raise any heightened concerns to you, or for you?

**MR. OWEN:** No, not really, because the EPCM contractor had those – there were individuals in that team that had extensive hydro experience.

**MR. HOGAN:** Okay, so it was supplemented. There – the lack of hydro experience with the project team was supplemented with the expertise from SNC-Lavalin.

**MR. OWEN:** Yes, and I think Mr. Mallam mentioned that yesterday or today.

**MR. HOGAN:** Ms. O'Brien used the word – I think you said the relationship with SNC and

Nalcor improved between DG2 and DG3, but Ms. O'Brien said that there'd been some deterioration in the relationship prior to DG2. Do you recall that?

**MR. OWEN:** There was deterioration – I mean, the relationship wasn't good in and around DG2. I did a cold eyes review in February of 2012 that was prior to DG3. There was – we had concerns then, and the concerns we had at that time resulted in Nalcor really commissioning a team effectiveness program.

**MR. HOGAN:** So I guess – can you comment further on the level of deterioration? Was it just the fact that SNC had trouble filling these roles or was there something more to it than that?

**MR. OWEN:** It was –

**MR. HOGAN:** Was it relationships, was it people bashing – or clashing heads – was it differences of opinion?

**MR. OWEN:** Certainly the first one. The fact that SNC and my report from the – which is an exhibit there. My report from February spells out – February 2012 – spells out that SNC had difficulty filling major positions. That was – that that was one of the problems.

And a team of that size, you're going to get diverse behaviours, and that's why we felt that we needed a team effectiveness program such that we would ultimately be able to get the correct behaviours. There was nothing going on that I hadn't seen before, and things certainly did improve when the team effectiveness progress was – program – was put in place.

**MR. HOGAN:** Okay, so knowing that you were relying on SNC being a part of this overall team –

**MR. OWEN:** Yes.

**MR. HOGAN:** – their expertise –

**MR. OWEN:** Yes.

**MR. HOGAN:** – knowing that there had been issues with the relationship –

**MR. OWEN:** Yeah.

**MR. HOGAN:** – did you have any concern going forward that this relationship might not last? Because we now know that it didn't.

**MR. OWEN:** Well, we knew that certain departments had moved into an integrated team.

I mean, planning was probably one of the first ones, and cost and estimating was one of the next ones, and supply chain was starting to do it during that period of time.

Document control, I think – even at DG3, I don't think document control was integrated at that time. I think we had an observation about that. Document control ultimately was integrated. Before that they were operating two document control systems – a Nalcor system and SNC system.

So gradually – and then, I think, it culminated in the overall change to an integrated team sometime in the early part of 2013. I think that was when it was all sort of worked out. But it was done stage by stage to – really to address specific resource problems that were happening in various groups. Resource not only in terms of the numbers of people required but the competency of those individuals –

**MR. HOGAN:** It was important for SNC to be there in terms of their expertise in this specific project type? It was important for SNC to be involved?

**MR. OWEN:** Yes, as was mentioned this morning. I think I was asked about the engineering – the engineering side of it. SNC continued to operate as a engineering contractor for all the engineering.

**MR. HOGAN:** Okay.

Mr. Fitzgerald asked you about – I think that you said this is the first time you've done one of these reviews for a public entity.

**MR. OWEN:** Yes.

**MR. HOGAN:** Did you have or did your team have any heightened sense of duty, I'll say, 'cause this was public funds, to do this analysis?

**MR. OWEN:** We realized that it was public funds. I don't think we adopted any major difference between what we would have done for a different entity. I don't believe that was really became a factor in our process.

**MR. HOGAN:** Was there any sense of a feeling around the team and the people you interview that it was public money that was being discussed and spent and talked about? Ultimately, it was the ratepayer that's funding this project, not a private entity, which is what you're used to.

**MR. OWEN:** Mm-hmm.

**MR. HOGAN:** Did you get a sense that that was an issue at all around the team when you did these reviews?

**MR. OWEN:** I think the team generally, and also the IPR team, you know, were really aware that this was – really so to speak – our money. I mean, it's your money. It's my money. It's – I think there was a general – I'm absolutely sure that there was a general understanding that it was public money.

**MR. HOGAN:** I'll get off that now. Did you do any work for Nalcor after DG3? Let's say between DG3 and DG4. I know you've – you're doing the DG4 –

**MR. OWEN:** Yes. Yeah. I continued with the team effectiveness coordination beyond DG3, and I think that finished up in sort of June – well, maybe the second quarter of 2013. And I don't believe that I've done any work for the Lower Churchill since that time in 2013, until I was asked to start to look at DG4.

**MR. HOGAN:** Do you know when that was? Do you know when you were asked to look at DG4?

**MR. OWEN:** Probably early this year, maybe March – March, March time.

**MR. HOGAN:** This year?

**MR. OWEN:** Yes.

**MR. HOGAN:** And who would've contacted you to do that?

**MR. OWEN:** Paul Harrington.

**MR. HOGAN:** Just if you can elaborate a little bit on the comments in that report about the project team not being able to let go of the work and let the –

**MR. OWEN:** Mm-hmm.

**MR. HOGAN:** – can you comment a little bit about what you saw there?

**MR. OWEN:** Yeah, as I have mentioned, it's – various individuals within project teams have got various levels of experience, some are experienced in the role of the owner; some of the individuals that come in have less experience in the own – in the role of the owner. And therefore they have to really transition out of their role. If they came out of an engineering contract, or if that was mainly their expertise, to transition out of getting into the engineering or getting into the role of the contractor, and back out and become an owner. And it's easier for some people to do that than others, that's all.

**MR. HOGAN:** Just a couple more questions.

When Mr. Smith was asking you about the management reserve –

**MR. OWEN:** Yes.

**MR. HOGAN:** – I just – if you're comparing two projects, and this is what was being done here to determine what the least-cost option is, it might be at the prerogative, I guess, of the team or the CEO to put the management reserve into the sanction costs –

**MR. OWEN:** Mm-hmm, mm-hmm.

**MR. HOGAN:** – is what I think Mr. Smith was asking you about.

But if you're comparing two projects – want to compare apples to apples – should the management reserve be included in the sanction cost?

**MR. OWEN:** We had no mandate to look at that comparison. That was not part of our – it was not part of the IPR mandate to look at the comparison of those two options.

**MR. HOGAN:** The last question I have.

With regards to the suggested changes that Mr. Harrington made –

**MR. OWEN:** Hmm.

**MR. HOGAN:** – I know he can answer for himself. Do you have an opinion as to why he wanted those changes made? What his motivation was?

**MR. OWEN:** I don't know what his motivation was.

**MR. HOGAN:** Did you have any conversations with him about what his motivation was?

**MR. OWEN:** No, I was more concerned about understanding the wording and really emphasizing that once we looked at those – looked at his request in (inaudible) detail, it's something that the IPR team could not accept to do.

**MR. HOGAN:** Do you have an opinion on what his motivation was?

**MR. OWEN:** I have no opinion on his motivation.

**MR. HOGAN:** Okay, that's all the questions I have.

Thank you.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** Okay.

So, Ms. O'Brien, it's now just after quarter to. Did you want to continue or did you want to wait until after lunch?

**MS. O'BRIEN:** I'm fine to continue. I expect I'll be about 15 minutes, which means we might be a little bit later on lunch, but then that would allow Mr. Owen to leave, so ...

**THE COMMISSIONER:** Okay.

**MS. O'BRIEN:** Oh – and I may not even be that long. First, if – can we go to P-00504, page 14?

**THE COMMISSIONER:** That's tab 30, I think.

**MS. O'BRIEN:** Yes, tab 30.

Mr. Owen, one of your answers that you gave to Mr. Simmons actually caused me some confusion; I just wanna clear it up.

**MR. OWEN:** Okay.

**MS. O'BRIEN:** So here this one was: "The IPR Team finds that best practice risk analysis processes were followed that can reasonably be expected to indicate adequate and realistic cost and schedule allowances. However, since the Project Sanction documentation is not yet complete, the IPR team cannot comment upon how these allowances have been or will be included in the Project Sanction cost and schedule."

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** And when Mr. Simmons asked you about what project sanction documentation you were referring to there, I believe your answer to him was the decision support packages.

**MR. OWEN:** That's what I think we would mean, yes, yes.

**MS. O'BRIEN:** Okay. And I'm not saying – I'm not – I don't want to suggest that is incorrect at all but I do wanna ask you about – can we please go to page 43?

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** So at page 43 here, this is one of your focus areas that we've discussed at some length, was: "That adequate and realistic cost and schedule allowances have been determined and included in the Project Sanction costs and schedules and appropriate range of accuracy has been determined."

So that was one of the areas that the IPR team was being asked to give a comment on and whether it was ready to go through the Gate with respect to that one.

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** Correct?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** And here under the comments, there's nothing here as to required for Gate or required after it. It just says, "See 51" –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – so if we go up to 51 –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – you note here: "Risk procedures is well documented

"Risk Analysis not in Aconex"

**MR. OWEN:** Yes.

**MS. O'BRIEN:** And that is marked as a blue for required for the Gate.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** So when you were referring about the risk analysis here, is that these QRA –

**MR. OWEN:** Yes.

**MS. O'BRIEN:** – these S-curves that we've been speaking about?

**MR. OWEN:** Yes, it is – S-curves.

**MS. O'BRIEN:** Okay.

So I just wondered, in terms of the documentation you didn't have, could it also be that those S-curves were one of the – I mean, if that's what you were referring to here and you said it wasn't in Aconex, which I understand was the document filing system.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Am I correct in understanding that you didn't have that information but you considered that – the IPR team considered that information to be necessary for the Gatekeeper to have before going through the Gate?

**MR. OWEN:** Correct.

**MS. O'BRIEN:** Okay.

And again, I just wanna be clear on your evidence here. So the – we're talking about these S-curves –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – and your understanding was that it wasn't in Aconex at the time –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – it wasn't there for your team to review –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – because although work had been done – and it had been done fairly recently?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. The project team was planning to have that work redone?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** So new S-curves would be produced, that was your understanding?

**MR. OWEN:** I would assume so, from the – if they were having it repeated, yeah.

**MS. O'BRIEN:** That's what – so new S – and then that would be what you would expected – the Gatekeeper would have to have them before moving through the Gate?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay.

And with respect to some of the questions that Mr. Smith asked you, I just wanna be clear, and if we could just bring up P-00504, page 41. The last – this is the one, of course, we spent the most time on here.

And this here – am I understanding correctly that it was in the – it was in Nalcor's documentation that management reserve be included in the project sanction cost.



**MR. OWEN:** Yes.

**MS. O'BRIEN:** Is that right?

And it was in Nalcor's documentation that schedule reserve be included in the project sanction schedule?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. And that the IPR team also recommended that that be done?

**MR. OWEN:** We concurred that the – with the expectations laid out by that project document (inaudible) –

**MS. O'BRIEN:** Okay, so then is it fair to say that you –

**MR. OWEN:** Yes.

**MS. O'BRIEN:** – would've also been recommending that the schedule reserve be put in the project sanction schedule and that management reserve be put in the project sanction cost?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. That's a fair interpretation.

And I understand what you were saying to Mr. Smith was that that would be – whether that was done or not is ultimately the prerogative of the Gatekeeper.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay.

So IPR just makes a recommendation, but it's really the Gatekeeper's final decision?

**MR. OWEN:** Absolutely.

**MS. O'BRIEN:** And likewise would that be if – whether that information would be communicated to the project owner by the Gatekeeper –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – is that, again, something that would be in the prerogative of the Gatekeeper?

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay, his decision to make whether or not to hand that on to the shareholder.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. And you did reference – made reference to the IPR's review of the decision support package so I just wanted to follow up on that. Can we please have P-00488, page 2?

This was actually a slide, Mr. Owen, that I believe I covered with, certainly, Mr. Mallam on his direct –

**MR. OWEN:** Mm-hmm.

**MS. O'BRIEN:** – I'm not sure about you, but it's here. This is – I just want to draw your attention that this may have been what you were referring to: "The aim of the IPR is to validate and constructively challenge information in the Decision Support Package ... and to provide additional input to support the Gatekeeper in making a high quality decision."

Is that the document you were referring to when you – I think you had said at one point you expected that the IPR would have seen the DSP and you said you recalled seeing it in a Nalcor document? I just wanted to – I wanted –

**MR. OWEN:** This is one of the documents, but I think it's also mentioned in another document and that could well be the governance plan.

**MS. O'BRIEN:** Okay.

**MR. OWEN:** I'm not a hundred per cent sure of that, but this was one, yes. Yeah.

**MS. O'BRIEN:** Okay and what –

**MR. OWEN:** This was a Nalcor document by the way.

**MS. O'BRIEN:** Yes, absolutely, this was a Nalcor presentation. If we just – sorry, if I can

get my mouse back, here we go. If we just go up, it was a Nalcor presentation –

**MR. OWEN:** Correct.

**MS. O'BRIEN:** – on the fundamentals of IPR.

**MR. OWEN:** Yes.

**MS. O'BRIEN:** Okay. So – but your – what I understand your evidence to be is you were not asked to review the decision support package at either Gate?

**MR. OWEN:** That's correct.

**MS. O'BRIEN:** Okay. And to your knowledge, it wasn't ready when you did your review?

**MR. OWEN:** It probably wasn't ready.

**MS. O'BRIEN:** But you don't know that for sure?

**MR. OWEN:** No.

**MS. O'BRIEN:** Okay.

All right and, finally, one last point. Can we please go to P-00490, page 6? And this is following up from a question that Mr. Hogan asked you. And I know he was primarily focused – this is DG2 – he was primarily focused on Focus Area number 16.

Sorry, I might not – is that four? Yes, thank you. He was primarily focused on number 16, but you – I think he also touched on 17. And I just wanted to point out that on 17, there was a non-applicable for that –

**MR. OWEN:** Yes, yes.

**MS. O'BRIEN:** – one, so I don't believe the review team made any finding with respect to that particular focus area, Decision Gate 2.

**MR. OWEN:** That's correct.

**MS. O'BRIEN:** There you go. I think I was under 15.

Thank you, those are all my questions.

**THE COMMISSIONER:** Okay.

**MR. OWEN:** Thank you.

**THE COMMISSIONER:** I just have one question. Mr. Hogan did ask you whether or not you had done any other work for Nalcor after your DG3 IPR report.

**MR. OWEN:** Mm-hmm.

**THE COMMISSIONER:** I thought I heard you say, at some point in time in your evidence, that you were doing something with Nalcor Oil and Gas. So have you done any work for Nalcor or any of its subsidiary companies from the time that you did your DG3 IPR report to the present?

**MR. OWEN:** For any of the subsidiaries?

**THE COMMISSIONER:** Yes.

**MR. OWEN:** Yes, I provide support to Nalcor Oil and Gas, I'd say as a project advisor. And I believe that that contract was probably – well, let me think.

I came back here from Nova Scotia in 2010, so that was probably 2011 or roundabout that time. I've been – and I'd been working with Oil and Gas since that time right through to the current. So, yes, I have a contract with Oil and Gas.

**THE COMMISSIONER:** Yeah, any other work with Nalcor?

**MR. OWEN:** I have with Nalcor subsidiary, part of Oil and Gas, and had a small separate contract with, actually, Bull Arm Fabrication assisting them with the strategies for the use of Bull Arm post-Hebron, but that was a very small amount of work. And Bull Arm Fabrication are part of oil and gas, so –

**THE COMMISSIONER:** Okay.

**MR. OWEN:** So, no, I think that's it basically.

**THE COMMISSIONER:** Thank you.

All right, Sir, you can step down. Thank you very much.

And we'll start again at 2 o'clock this afternoon.

**Recess**

**CLERK:** All rise.

This Commission of Inquiry is in session. Please be seated.

**THE COMMISSIONER:** All right.

Mr. Learmonth.

**MR. LEARMONTH:** Thank you.

Before we start I would like to enter a series of exhibits into the record. The first series of exhibits is P-00611 to P-00722. They're board minutes – the Nalcor board of directors that were referred to yesterday afternoon by Ms. O'Brien.

The second – I'll also ask that the following exhibits be entered: P-00451 through P-00474; P-00523 through P-00526; P-00530; and then finally P-00606 through P-00723.

**THE COMMISSIONER:** Okay.

**MR. LEARMONTH:** If they could be entered into the record, unless there's any objections.

**THE COMMISSIONER:** All right. They'll be entered as numbered.

Next witness.

**MR. LEARMONTH:** Okay.

The first witness this afternoon is Tom Brockway, who will be sworn.

**THE COMMISSIONER:** Please just stand up sir, if you would, please. Take the Bible in your right hand.

**CLERK:** Do you swear that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth, so help you God.

**MR. BROCKWAY:** I do.

**CLERK:** Please state your full name for the record.

**MR. BROCKWAY:** Tom Brockway.

**CLERK:** Thank you.

**MR. LEARMONTH:** In which city do you live, Mr. Brockway?

**MR. BROCKWAY:** Halifax.

**MR. LEARMONTH:** Halifax, Nova Scotia.

And now, just as a preliminary point, I'm going to be asking that Mr. Brockway be qualified as an expert and be allowed to give opinion evidence in the following area: assurance and accounting advisory services, including assistance with financing and capital transactions in a wide variety of industries including the utilities and energy sector.

Assurance and accounting advisory services means leading audits of financial statements and consulting with clients on technical accounting and financial reporting matters. So that's the area that I will, after presenting Mr. Brockway's qualifications, I'll be seeking that he be qualified as an expert.

Now, just before – you've heard that definition, Mr. Brockway?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Can you please explain the role that interpretation of contracts plays in the area of expertise that I have just read into the record?

**MR. BROCKWAY:** Well, interpretation of contracts is inherent in the auditing practice. Often times, when we're performing audits and when we're assessing areas of risk as it relates to audits, we're looking to identify complex transactions. We're looking to identify transactions that are outside the normal course of the business operations and those, generally, are supported by commercial agreements – those transactions – and as part of the audit, we would be summarizing and analyzing those.

**MR. LEARMONTH:** All right. Now Mr. Brock [sp Brockway], I want you to provide us with some information on your background education and professional career. I understand

that you were born in Corner Brook in 1971, is that correct?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** Can you just take us forward up 'til the end of your high school?

**MR. BROCKWAY:** So I grew up in Corner Brook. I spent a couple of years – my family spent a couple of years in Central Newfoundland, as well, before moving back to Corner Brook up to grade – the end of grade eight. And my family relocated to Halifax, Nova Scotia, to begin grade nine. I finished my high school in Nova Scotia and then once I graduated from high school I did –

**MR. LEARMONTH:** When did you graduate from high school?

**MR. BROCKWAY:** In 1989.

**MR. LEARMONTH:** Fine. And then what did you do after you graduated from high school?

**MR. BROCKWAY:** And then I started at Saint Mary's University in 1989.

**MR. LEARMONTH:** And did you graduate from Saint Mary's University?

**MR. BROCKWAY:** I did.

**MR. LEARMONTH:** When?

**MR. BROCKWAY:** In 1993.

**MR. LEARMONTH:** After you graduated from Saint Mary's – I understand that was with a Bachelor of Commerce degree, is that correct?

**MR. BROCKWAY:** Correct. With a major in accounting.

**MR. LEARMONTH:** Major in accounting. So after you graduated from Saint Mary's in 1993, I understand that you enrolled in the CA – chartered accountant's educational program in Nova Scotia?

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** Okay. And what did you do in terms of work after you had enrolled in this CA education program?

**MR. BROCKWAY:** I started my career at KPMG in Yarmouth, Nova Scotia and worked there for four years. It took me two years to get my chartered accountant designation, but I worked down there in Yarmouth for a total of four years.

**MR. LEARMONTH:** All right.

Then perhaps we can turn to Exhibit P-00451, page 1.

**THE COMMISSIONER:** That's at tab 1.

**MR. LEARMONTH:** Yes, tab 1. P-00451, tab 1, page 1.

Yes. Is this a correct statement of your career experience, Mr. Brockway?

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** Okay, well just read into the record what you – where you worked after – we know you were in Yarmouth –

**MR. BROCKWAY:** Sure.

**MR. LEARMONTH:** – for four years, then after you left Yarmouth, where did you go and who did you work for?

**MR. BROCKWAY:** After I left Yarmouth, I worked with Ernst & Young – in the Halifax office of Ernst & Young beginning in 1998. I worked in the Halifax office of Ernst & Young for eight years, at which time I transferred to the St. John's, Newfoundland, office of Ernst & Young. That was in 2006. I became a partner at Ernst & Young in 2007 and worked in the St. John's office until 2013. In 2013 I – my family moved back to Halifax and that's when I joined Grant Thornton as a partner in December of 2013.

**MR. LEARMONTH:** Right.

Now, the area of expertise that I'm going to ask, Commissioner, to qualify you as an expert in – have you worked in that area throughout your

career? Or if not throughout your career, for what part of your career have you worked in that area?

**MR. BROCKWAY:** I've worked exclusively in the audit practice for my entire career. So that's a 24-year career.

**MR. LEARMONTH:** Including assurance services?

**MR. BROCKWAY:** That would be assurance – audit would be assurance services, yes.

**MR. LEARMONTH:** And review of documents?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Contracts?

**MR. BROCKWAY:** Exactly.

**MR. LEARMONTH:** Is that an integral part of your work as an assurance –

**MR. BROCKWAY:** It's an inherent part of the audit process.

**MR. LEARMONTH:** Okay.

So it's not something you do just, you know, on an irregular basis.

**MR. BROCKWAY:** No, it's not.

**MR. LEARMONTH:** Okay.

And just one final question: Is that the – the area that I described earlier, is that the area in which you presently conduct your professional practice and work at Grant Thornton in Halifax?

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** Yeah.

Commissioner, unless counsel for parties with standing have any questions on Mr. Brockway's qualifications, I would ask that Mr. Brockway be qualified as an expert and allowed to offer opinion evidence in the area of expertise, which I have described earlier.

**THE COMMISSIONER:** Okay. So I'll ask the province first.

**MR. RALPH:** No questions.

**THE COMMISSIONER:** Mr. Simmons for Nalcor?

**MR. SIMMONS:** Thank you, Commissioner.

Mr. Brockway, my name is Dan Simmons and I'm with counsel for Nalcor Energy. Just a few questions arising out of those you've already answered for Mr. Learmonth.

**MR. BROCKWAY:** Okay.

**MR. SIMMONS:** And can you tell me if you have had any particular training – through the course of your university degree or your chartered accountancy training or otherwise – that directly relates to the interpretation of contracts.

**MR. BROCKWAY:** Direct training; other than my training in the auditing practice, I haven't had any direct training of that nature.

**MR. SIMMONS:** And what sort of training is provided in the CA program or the auditing training that would relate to the interpretation of contracts?

**MR. BROCKWAY:** It's more around the auditing process –

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** – and the steps that you take in the auditing process, which would be things like identifying risk, identifying complex transactions, identifying the need to go to the contract to analyze the contract.

**MR. SIMMONS:** Okay.

Now, you've described contract review, I think, as an inherent part of auditing and assurance. My first question is: Is there some difference between auditing and assurance? Are those two distinct activities or ...?

**MR. BROCKWAY:** The two terms can be used interchangeably.

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** The word “assurance” implies that I’m providing assurance on the numbers that are being presented in the financial statements.

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** That could include an audit engagement; it could also include a review engagement which is less of a scope than an audit.

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** But, oftentimes, audit and assurance are used interchangeably.

**MR. SIMMONS:** So when you’re reviewing contracts in that context, that would be contracts that the company that you’re auditing is a party to, I guess, that relate to their business? Is that the context in which you would be reviewing those contracts?

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** Yeah. And for what purpose would you be conducting that contract review?

**MR. BROCKWAY:** For the purpose of providing an audit opinion on the financial statements taken as a whole.

**MR. SIMMONS:** Mm-hmm.

So what are you looking for in those contracts when you review them for that purpose?

**MR. BROCKWAY:** You’re looking for critical terms.

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** You’re looking for parts of the contract that could affect accounting and financial reporting and disclosure requirements.

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** Because, oftentimes, because they’re generally complex transactions

that may not be in the normal course of the business operations –

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** – oftentimes, management needs assistance in determining the impact to the accounts and the impact to the disclosures.

**MR. SIMMONS:** Okay.

In performing your work, do you draw any distinction between the type of contract review you would carry out and the type of review a lawyer would do for legal interpretation of contract terms?

**MR. BROCKWAY:** I’m not really aware of how a lawyer would interpret contract for legal terms. I’ve – that’s not part of my experience.

**MR. SIMMONS:** Okay.

So do you have occasion to engage lawyers in order to assist with the interpretation of contracts when you’re carrying out your accounting audit or assurance function?

**MR. BROCKWAY:** Generally, when we’re reviewing contracts we don’t consult with lawyers in the audit practice.

**MR. SIMMONS:** And I would be correct that you don’t have any training in law yourself?

**MR. BROCKWAY:** Right.

**MR. SIMMONS:** Right. So can you explain to me to what extent – as a chartered accountant, CPA now I guess you are, is it?

**MR. BROCKWAY:** That is correct, CPA.

**MR. SIMMONS:** Yes, with your, you know, training and qualifications, to what extent you would consider yourself having the professional competence to carry out any legal interpretation of the terms of contracts.

**MR. BROCKWAY:** In the absence of formal legal training, it’s hard to suggest that I would have experience with legal interpretation.

**MR. SIMMONS:** Okay.

So can you explain to me then what sort of approach you bring in your audit and assurance practice to the interpretation of contracts, if it's not the sort of thing that legal training would allow you to bring to it?

**MR. BROCKWAY:** It's identifying significant terms –

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** – that would impact the financial statements or disclosures of the business.

**MR. SIMMONS:** Thank you very much. I don't have any other questions.

**THE COMMISSIONER:** Concerned Citizens Coalition?

**MR. BUDDEN:** No questions.

**THE COMMISSIONER:** Thank you.

Edmund Martin?

**MR. SMITH:** No questions, Mr. Commissioner.

**THE COMMISSIONER:** Kathy Dunderdale?

**MS. E. BEST:** No questions. Thank you.

**THE COMMISSIONER:** Thank you.

Former Provincial Government Officials '03-'15?

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

**THE COMMISSIONER:** Thank you.

Charles Bown, Julia Mullaley?

**MR. FITZGERALD:** No questions.

**THE COMMISSIONER:** Robert Thompson?

**MR. COFFEY:** No questions.

**THE COMMISSIONER:** Todd Stanley, Terry Paddon?

**MS. VAN DRIEL:** No questions.

**THE COMMISSIONER:** Consumer Advocate?

**MR. HOGAN:** No questions, Commissioner.

**THE COMMISSIONER:** Okay.

Former Nalcor Board Members – I don't think they're there.

Emera Inc.?

**MR. NOEL:** No questions.

**THE COMMISSIONER:** You're just going to have to stick your mic on.

**MR. NOEL:** No questions.

**THE COMMISSIONER:** Thank you.

All right, any submissions from any party with regards to the issue of providing opinion evidence?

**MR. SIMMONS:** Commissioner, on behalf of Nalcor Energy we have no objection to the qualification of Mr. Brockway to provide opinion evidence in the nature as described by Mr. Learmonth, noting only the qualification that he is, of course, not a lawyer and so would not be able to stray into legal opinions on the documents.

**THE COMMISSIONER:** Okay. Any others?

All right, then in the circumstances, with the qualification that he is not a lawyer, I am prepared to allow Mr. Brockway to provide – or recognize his expertise for the purposes of providing opinion evidence on the issue of assurance and accounting advisory services, including assistance with financing capital transactions in a wide variety of industries including utilities and energy sector assurance and accounting.

Advisory services is described as meaning leading audits on financial statements, consulting with clients on technical accounting and financial reporting matters.

In this case, as I understand it, Mr. Brockway is speaking to the terms of a number of agreements that were entered into between Nalcor and Emera. He was contracted by the Commission of Inquiry to provide this information and, in the circumstances, I'm satisfied that his background is suitable to allow him to provide that evidence before the Commission.

**MR. LEARMONTH:** Thank you.

Mr. Brockway, I want to ask you some questions on –

**UNIDENTIFIED MALE SPEAKER:** Mic.

**MR. LEARMONTH:** Mr. Brockway, I want to ask you some questions on Grant Thornton's engagement agreement with the Commission and the scope of the work that Grant Thornton agreed to undertake for this engagement.

And I would ask Madam Clerk to please bring up Exhibit P-00452, and that's tab 2 of your documents.

Mr. Brockway, can you confirm that this is the Engagement Agreement of the scope of work stated on page 4 and 5 – perhaps if you can turn that up – on Exhibit P-00452 is the work that you carried out?

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** It is, okay.

Holding on to the same document, Mr. Brockway, can you confirm that, in carrying out this work, you led a team consisting of yourself and the individuals listed on page 5 of Exhibit P-00452?

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** And can you confirm that the legal support for your work was provided by Miller Thomson LLP, a law firm in Toronto, Ontario, and that's indicated on the bottom of paragraph – bottom paragraph of page 1 of Exhibit P-00452. Is that correct?

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** Yeah.

Now, Mr. Brockway, this work was carried out by a team that was led by you, is that correct?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** And please confirm that you reviewed the report before it was issued and that you accept responsibility for the report, even though others assist you – assisted you in its preparation.

**MR. BROCKWAY:** I can confirm that, yes.

**MR. LEARMONTH:** Okay. Thank you.

Madam Clerk, please bring up Exhibit P-00453, which is tab 3, Mr. Brockway.

Mr. Brockway, can you confirm that this report, dated September 7, 2018, is the report that you prepared for the Commission in this engagement?

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** Yeah. And please confirm that it is your signature on the cover letter on page 2 of Exhibit P-00453.

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** Just have a look. Okay, thank you.

Mr. Brockway, I understand that after you had prepared your report, Exhibit P-00453, and after the report had been circulated to parties – the Parties with Standing – that Nalcor provided a 13-point commentary on the – on your report. Is that correct?

**MR. BROCKWAY:** That's correct, yes.

**MR. LEARMONTH:** Madam Clerk, could you please bring up Exhibit P-00525, which is tab 27?

Can you confirm that this is the 13-point commentary that was provided to the Commission and on to you by Nalcor?

**MR. BROCKWAY:** Yes, it is.

**MR. LEARMONTH:** Okay.



Now, you've reviewed this commentary prepared by Nalcor, is that correct?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** And is it correct that in – that you prepared a response, and that's tab 606 – Exhibit 00606.

And can you tell me what Exhibit 00606 is?

**MR. BROCKWAY:** 00606 is our response to the clarification in the points raised by Nalcor.

**MR. LEARMONTH:** All right, and you set it up so that you've put your response to each of the 13 items under the commentary on –

**MR. BROCKWAY:** Yes, it follows the same format as the Nalcor points.

**MR. LEARMONTH:** Okay.

And do you acknowledge that there were seven factual errors in your report, and those are identified in the following paragraphs: paragraph 3, 7, 9, 10, 11, 12 and 13?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Those were factual errors and you stand corrected by Nalcor, is that correct?

**MR. BROCKWAY:** Stand corrected by Nalcor, correct.

**MR. LEARMONTH:** All right.

And do you agree that in addition to the seven factual errors that you've acknowledged, that there were six points, six additional points, identified by Nalcor which you believed required clarification or further commentary –

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** – as opposed to being factual errors?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** And that these items are identified in paragraphs 1, 2, 4, 5, 6 and 8 of Nalcor's commentary?

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** Okay.

Now, Mr. Brockway, can the Commission accept your report as amended or clarified by Exhibit 00606 is a true statement of your opinions in the matters you undertook to review in the engagement?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** You confirm that, do you?

**MR. BROCKWAY:** I can confirm that, yes.

**MR. LEARMONTH:** Okay.

Madam Clerk, please bring up Exhibit 00453, which is tab 3, Mr. Brockway.

For the help of those who are not aware of the structure of the report and to provide assistance to them, I would ask you to turn to page 3 of Exhibit P-00453, which is a table of Contents for your report and that's the way you've organized it under those headings. Is that correct?

**MR. BROCKWAY:** That's right.

**MR. LEARMONTH:** Okay.

I'd also point out at this time, hopefully, to assist people who are following that on the exhibit P-00453, pages 33 and 34, there is an Appendix B, which provides a glossary of abbreviated terms and I ask that the people interested look at this glossary because by reading it, I think, that it would make the report more understandable, particularly, for those reading it the first time.

And, I think, Mr. Brockway, you will acknowledge or agree with me that the contracts or agreements are complicated, complex and in places difficult to understand due to the technical subject matter.

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** Yeah. And, in addition, do you agree that there are parts of these contracts that may be open to different interpretations?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** In other words, they're not black and white.

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Yeah, okay.

Okay, before I ask you to go through the contents of your report in summary form, I'd ask Madam Clerk to bring up Exhibit P-00523, which is at tab 26.

Now, this is – Mr. Brockway will you confirm that this is a timeline which you prepared for the purpose of providing a useful statement of the key dates relevant to both the agreements that you reviewed between Emera and Nalcor, which will be discussed today, and also the first and second federal loan guarantees?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** So why did you prepare this timeline?

**MR. BROCKWAY:** I thought it would be helpful in terms of just putting the two pieces together, being the process taking place in Newfoundland from the Nalcor perspective and also the process happening in Nova Scotia through the Emera perspective.

**MR. LEARMONTH:** So, it's to make – make it easier to – all this subject easier to understand for people.

**MR. BROCKWAY:** I think so, yes.

**MR. LEARMONTH:** Okay. Thank you.

Now, Mr. Brockway, I'd now ask you to turn to page 11 of Exhibit P-00453, the report, and provide us with a summary of the information which you have included under the heading background and the November 18 term sheet between Emera and Nalcor. That's page 11.

**MR. BROCKWAY:** Yes, so page 11 under the header "Background & Term Sheet" is where we begin to summarize the significant rights and obligations of the two – of Nalcor and Emera – under the term sheet.

And of course, the term sheet was entered into – with the primary purpose for Emera to obtain renewable energy from the Muskrat Falls Project in an effort to also reduce greenhouse gas emissions. And for Nalcor, the primary purpose was to deliver power from Muskrat Falls, and to obtain a transmission path into and through Nova Scotia.

And so effectively, the main terms of the term sheet was Emera would be responsible for the construction of the Maritime Link; up to 20 per cent of the estimated development costs and as well, 20 per cent of the estimated upbrining and maintenance costs. And then so, we begin to outline the significant rights and terms under the term sheet, with that being the basic purpose of the term sheet, okay?

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** So we just walked through Nalcor's significant rights and obligations, primarily to construct, own and operate the Muskrat Falls plant and the Labrador transmission assets; to provide and transmit annually 0.98 – as it was defined in the term sheet – 0.98 terawatt hours of renewable power over the 35 year term of the Muskrat Falls plant.

Nalcor was to construct, own and operate the Labrador-Island Link, but it required – the term sheet required Emera to purchase an additional investment in the Labrador-Island Link upon sanctioning. Have equal representations – this is one area where Nalcor provided clarity – we refer to Nalcor having 4 of 6 representatives on the joint committee, and Emera having 2 of 6 representatives.

But in fact, it's equal representation on the joint committee over the design and construction. The principle of a 5-5-10 sharing of cost overruns on the Maritime Link was outlined in the term sheet. Nalcor was responsible for Maritime Link's development costs and operating and maintenance costs not covered by Emera.

So Emera would cover exactly 20 per cent of the estimated total operating and maintenance costs of the combined projects. For development costs, both parties would consult and make appropriate adjustments to make – to each other. So the mechanism to do that wasn't actually outlined in the term sheet; it did get further clarified by the commercial agreements that were entered into after the fact.

And of course one of the big benefits for Nalcor was they own the Maritime Link's transmission rights outside of the capacity to be used to deliver the Nova Scotia block to Emera.

**MR. LEARMONTH:** And that would allow Nalcor to transmit power to the mainland through –

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** – the Maritime Link.

**MR. BROCKWAY:** Through the Maritime –

**MR. LEARMONTH:** That was one of the benefits that Nalcor got from –

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** – entering into this arrangement.

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** And just before we leave that, I just want to, just – to put it in the simplest of terms – in terms of what Emera paid for this commitment to deliver power over 35 years. Can you confirm that Emera paid approximately \$1.6 billion to construct the Maritime Link, and that in exchange for this payment of \$1.6 billion or thereabouts, they received the right to obtain power as specified in the term sheet for the 35-year period? So it was an upfront payment of \$1.6 billion by Emera; in exchange for that, the power they were entitled to – Emera was entitled to receive the power under the terms specified in the agreement. Is that correct?

**MR. BROCKWAY:** Emera's obligation was to construct the Maritime Link, which cost approximately \$1.6 billion.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** And in exchange, they would receive approximately one terawatt hour of electricity – of energy – for 35 years.

**MR. LEARMONTH:** Yeah. It would also –

**MR. BROCKWAY:** As an exchange.

**MR. LEARMONTH:** – as you said earlier, it would also allow Nalcor at – on a no-cost basis – to transmit power from Newfoundland – Island of Newfoundland to Nova Scotia. Is that correct?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** There may be other, you know, back-and-forths, but those are the main ones as far as you're aware?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Okay. Thank you for clarifying that.

Okay, I interrupted you. Please carry on.

**MR. BROCKWAY:** Yes. And Emera's significant rights and obligations under the term sheet were, as we previously mentioned: To construct, own and operate the Maritime Link until that Maritime Link's ownership is transferred to Nalcor for \$1, and that would happen at the end of the 35-year term.

Provide the transmission capacity – as previously mentioned as well – designated for Nalcor's use. Reimburse Nalcor for all of the related development and operating and maintenance costs that it had incurred, subject to the 20 per cent limit that was discussed in the term sheet.

And similar to the Nalcor terms, basically there was a sharing calculation related to cost overruns, the equal representation on the joint committee and the responsibility for exactly 20 per cent of the operating and maintenance costs of all the defined assets.

**MR. LEARMONTH:** Okay.

So that's the – your summary of the background information for this report.

Okay now, my next point is – for you to cover – is the summary of the commercial agreements on page 13 of the – of your report. Just for clarification, in the terms of engagement with the Commission you were asked to review five of the 13 agreements –

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** – plus the Energy Access Agreement which is, we'll say, the 14th agreement? So you did a more or less detailed review of six agreements, and the others you agreed to, and did, summarize –

**MR. BROCKWAY:** That's right.

**MR. LEARMONTH:** – in the summary beginning on page 13?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** Okay.

Would you please take us through, in summary form, the – your understanding of the 14 agreements, including the Energy Access Agreement, which you've listed on pages 13, 14 and 15. Just a very brief summary because I'm gonna ask you to take us through your analysis of the five agreements plus the Energy Access Agreement later.

So just a brief summary of the 14 agreements.

**MR. BROCKWAY:** So as a result of the term sheet –

**MR. LEARMONTH:** I may also add – sorry – you've revised your report somehow by acknowledging the correctness of some of the comments in Nalcor's commentary. If you can, when you're providing your summaries can you incorporate the amendments or clarifications which you've made, into your answers?

**MR. BROCKWAY:** Yes, I'll do that.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** Well as a result of the term sheet, 13 commercial agreements were entered into. They are listed beginning on the bottom of page 13.

The first one was the Maritime Link Joint Development Agreement, which established the joint development committee for the Maritime Link Project, established the governance structure, provided guidance and detail around pre-sanction activity and sharing of costs related to the Maritime Link, and also contained provisions relating to cost overruns and how those were to be handled.

Number 02 is the Energy and Capacity Agreement, which provides for the delivery of the Nova Scotia Block energy during the 35-year term of the Energy and Capacity Agreement.

On the top of page 11, Agreements 03 and 04. The overviews related to Agreements 03 and 04 should be swapped, and this was one of the points raised by Nalcor – that number 03, the Maritime Link (Nalcor) Transmission Service Agreement provides the establishment of all remaining transmission rates over the Maritime Link in favour of Nalcor. And the Maritime Link (Emera) Transmission Service Agreement establishes the transmission rates for delivery of the Nova Scotia Block and related assignment provisions in favour of Nalcor to enable delivery of the Nova Scotia Block.

**MR. LEARMONTH:** So you've just – you've reversed – you wish to reverse the order of the overview for paragraphs 3 and 4?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** Switch them. Okay, carry on.

**MR. BROCKWAY:** Yes.

Number 05, the Nova Scotia Transmission Utilization Agreement establishes the commitments by Emera to schedule and deliver energy for Nalcor through NS on a pay-as-you-go basis.

The New Brunswick Transmission Utilization Agreement provides for the use of the Bayside Transmission Rights on a pay-as-you-go basis.

The MEPCO Transmission Rights Agreement provides for the use of Maine Electric Power Company Inc.'s Transmissions Rights on a pay-as-you-go basis. The –

**MR. LEARMONTH:** Just for clarification so people will understand, so this – we – Nalcor – under these agreements Nalcor gets the right to transmit power at no cost to Nova Scotia. But if the power is going to end up in New England for example, that's not enough. There's a need for transmission rights through the adjoining jurisdictions which, in the case of getting to New England, would be New Brunswick and the state of Maine. Is that right?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** Yeah, so Nalcor secured these benefits under these agreements.

**MR. BROCKWAY:** Under these agreements, yes.

**MR. LEARMONTH:** Okay, carry on.

**MR. BROCKWAY:** The Interconnected Operators Agreement; it establishes the terms regarding safety, reliability and operability of the interconnection between the Newfoundland and Labrador and Nova Scotia bulk operating systems. It also provided for the committee to implement those decisions and monitor those activities.

The Joint Operations Agreement establishes the Joint Operations Committee for all of the transmission assets; provides the standards around the operation; provides the mechanism for the 80/20 sharing of costs between Nalcor and Emera.

The top of page 12, the Newfoundland and Labrador Development Agreement establishes the Joint Development Committee for the non-Maritime Link assets; provides the mechanics related to the funding of the Labrador-Island Link; and establishes items such as the capital structure and rate of return for Emera's investment in the Labrador-Island Link.

Number 11 is the Labrador-Island Link Ltd. Partnership Agreement. It establishes the structure for the partnership, how the partnership

is managed. It provides the mechanics around distributions to the limited partners post-first-commercial power.

The Inter-Provincial Agreement: Nova Scotia and Newfoundland working together in co-operation to ensure continued and ongoing success of the formal agreements. Number 13, the Supplemental Agreement serves as a formal memorandum of certain possible future activities and transactions referred to in the term sheet to facilitate future discussions between Nalcor and Emera.

So those were the 13 commercial agreements entered into pursuant to the term sheet, number 14 being the Energy Access Agreement that was entered into between Nalcor and Emera pursuant to the UARB decision related to the Maritime Link.

**MR. LEARMONTH:** And the requirement that the UARB set to – that there had to be a contractual arrangement whereby Emera could purchase market-priced energy, as they described it, from Emera on a contractual basis rather than just on an expectation basis.

**MR. BROCKWAY:** Right. Nova Scotia Power Inc. would have access to Nalcor market-priced energy.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** So that agreement 'contractualized' that right to obtain from Nalcor market-priced energy which was required as part of the UARB approval process.

**MR. LEARMONTH:** The – okay, now we're going to move into the – what falls under the heading: Detailed Explanations of Key Agreements and that's on page 15.

Now – and before we do that, I just wanted to point a couple things out to you. The – you know, the report speaks for itself and it's on the official record, so that will be – that's – having been filed is part of the official record of the Commission now.

I'll leave it up to you, but you don't have to read every word of your report. In areas where you believe that a summary of your findings is

adequate, please provide your summary. On the other hand, in areas where you believe that a summary would be inadequate, please feel free to read the full text into the record because the objective here is to make these complex agreements more understandable to the public.

And, as I said earlier, if you can, please incorporate the corrections that you have acknowledged are required under Exhibit 00606 into your answers. Do your best to do that.

**MR. BROCKWAY:** Okay.

**MR. LEARMONTH:** Okay, so let's start with the first agreement – first of the five agreements – well, six actually, including the Energy Access Agreement, and that's on page 15: The Maritime Link Joint Development Agreement.

**MR. BROCKWAY:** So the Maritime Link Joint Development Agreement, again, on an overview basis, establishes the Joint Development Committee and the governance structure for the Maritime Link Project and provides for certain pre-sanction activities and sharing of costs.

So the key commercial terms that were included in the Maritime Link Joint Development Agreement were consistent with what was outlined in the term sheet. And the summary starts with the fact that: Emera is responsible for construction of the Maritime Link. It has the option to develop additional capabilities if necessary.

On lines 7 and 8 we do define that Emera also has other responsibilities, but Nalcor has clarified what those other responsibilities are. We refer to any upgrades to Newfoundland's transmission system related to the Maritime Link, when in fact it's related specifically to Newfoundland Hydro's AC upgrades. So just a clarification point there in terms of –

**MR. LEARMONTH:** That's one of the corrections that –

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** – you're making at the – based on Nalcor's comments?

**MR. BROCKWAY:** It is.

**MR. LEARMONTH:** Okay. Thank you.

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** On page 13, the agreement also outlines and quantifies –

**MR. LEARMONTH:** I think that's page 16 –

**MR. BROCKWAY:** Oh, sorry, page 16 of the exhibit.

**MR. LEARMONTH:** – of the exhibit, yeah.

**MR. BROCKWAY:** Yes, yes, thank you.

Provides quantification of the estimated development costs for the Maritime Link, and they were agreed to be 1,577 million, which represented the – and were defined as the DG3 costs, Decision Gate 3 costs of the Maritime Link. And so this outlined – and the Maritime Link's actual development costs that exceeded that amount would be put forward to the UARB in an application to provide recovery from Nova Scotia ratepayers.

If they – if it was not approved by the UARB there was a sharing mechanism in place, which was calculated as the percentage of the total costs approved by the UARB; again, that being a point that's been clarified by Nalcor related to lines 9 and 10.

**MR. LEARMONTH:** But is that not a moot point at this stage, because I understand the Maritime Link was constructed at a cost that was under the amount, the limit set by the UARB? And so there was no additional payment required from Nalcor?

**MR. BROCKWAY:** No, I'll get to that –

**MR. LEARMONTH:** Okay, go ahead.

**MR. BROCKWAY:** I'll get to that in a moment.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** Essentially, the cost mechanism is that Emera would be responsible for the first 5 per cent of overruns, 5 per cent being 5 per cent of the costs approved by the UARB. Nalcor would be responsible for the second 5 per cent, and then any amount over 10 per cent would be shared equally between the two parties.

In terms of the true-up of the 20 per cent of total costs, Nalcor would reimburse Emera for development costs exceeding 20 per cent of the total estimated development costs. And that was actually quantified in the agreement as well. For purposes of the reimbursement in the agreement, 20 per cent of the total estimated development costs for all of the defined assets was fixed at 1,555.4 million, and Maritime Link's actual development costs were capped at the DG3 amount, so for purposes of the 20 per cent true-up, those amounts were fixed in this agreement.

And as a result of that math, Nalcor would reimburse Emera \$21.6 million related to that 20 per cent cost sharing commitment.

The Joint Development Committee would be established to oversee the construction of the Maritime Link. Again, we had equal representation from both parties, not the four-six – not the four-two representation that we show on line 22.

But even though there's equal representation on the Joint Development Committee, effectively Nalcor's CEO would have the final say in case of any disputes that happened on the Joint Development Committee. Nalcor would appoint the project director, Emera would appoint the project manager for the Maritime Link. The project manager would then report into the project director in terms of the requirements under the Joint Development Committee.

And lastly, Emera would reimburse Nalcor for all Muskrat link related development costs that were incurred by it prior to July 31.

**MR. LEARMONTH:** That – you mean Maritime Link?

**MR. BROCKWAY:** Maritime Link.

**MR. LEARMONTH:** You said Muskrat.

**MR. BROCKWAY:** Oh, I'm sorry. Yes, you're right –

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** – Maritime Link.

We highlight here that Emera and Nalcor would share equally in third party development costs. That, in fact, is not the case, as pointed out by Nalcor. It would include the third party development costs, so the agreement outlined that Emera would have to reimburse Nalcor for all of those development costs incurred by Nalcor.

**MR. LEARMONTH:** Okay, continue on.

**MR. BROCKWAY:** In terms of the impact that we've identified, really, you know, due to cost escalations, Emera has the benefit of having a cap, in terms of the 20 per cent cap on the total development costs of the defined assets. As a result, Nalcor can pay more than 80 per cent of the costs, subject to the – subject to any development costs that in excess of the amounts that are articulated in the agreement.

And secondly, Nalcor, as sharing a portion of the unapproved cost overruns, those costs obviously would be incremental to Nalcor as well.

**MR. LEARMONTH:** They're not shared in by Emera?

**MR. BROCKWAY:** They are shared with Emera, but they do represent additional costs to Nalcor related to the Maritime Link.

**MR. LEARMONTH:** Okay, thank you.

**MR. BROCKWAY:** The final point we make there with respect to the third party development costs isn't valid. It's – that one is part of the correction we talked about earlier.

**MR. LEARMONTH:** So that's the paragraph: "The equal sharing of third party development"? That paragraph goes –?

**MR. BROCKWAY:** Yes, lines four through six.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** And when you look at the comparison, we were also asked to compare the original 2012 version of the agreements and also the amended and restated 2014 version.

**MR. LEARMONTH:** Yeah, but just, like, if I can clarify – most of these agreements – not all, but I'll say many of them were revised in 2014. Is that correct?

**MR. BROCKWAY:** That's correct.

**MR. LEARMONTH:** Entered into in 2012, and they were amended in 2014?

**MR. BROCKWAY:** That's right.

**MR. LEARMONTH:** And that's identified on the table that you just took us through. The date of – the original date and the amended date, that's on pages 13, 14 and 15 of your report?

**MR. BROCKWAY:** That's right.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** In fact, only two of the 13 agreements weren't amended.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** So we were asked to compare the two versions to articulate any significant differences between the two agreements. And for the most part the agreements are very consistent. With respect to the Maritime Link Joint Development Agreement, references related to the agreement being contingent on sanctioning were removed because that had already taken place by the July 31 date – July 31, 2014.

The estimated development costs and the 20 per cent of the overall costs were quantified in the 2014 agreement whereas that wasn't the case. And the notion around the cost sharing end date around July 31, 2014 and the sharing of costs related to the Maritime Link were also added.

**MR. LEARMONTH:** Okay.

So that's the end of the first agreement – your discussion of the first agreement?

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** Okay.

Now, on page 18 under the heading b), I'd ask you to provide a similar commentary and explanation of the meaning and intent of the Energy and Capacity Agreement.

**MR. BROCKWAY:** Yes. So the Energy and Capacity Agreement provides for the delivery of the Nova Scotia Block to Emera during the 35-year term. And the amount of committed power from Nalcor to Emera was set at 0.986 terawatt hours annually, plus Supplemental Energy, which we'll speak to in a moment, but the 0.986 terawatt hours plus the Supplemental Energy together make up what's called the Nova Scotia Block.

The Nova Scotia Block, it had some characteristics assigned to it in terms of when it would be delivered during peak hours. As well, the Supplemental Energy had similar characteristics attached to it in terms of when it would be delivered, in what months it would be delivered. Those are articulated in the agreement.

And basically, the concept around the Supplemental Energy – which was estimated to provide approximately 240 gigawatt hours per year, and that's – that reference comes from the UARB application and decision – is based on the premise that Nova Scotia ratepayers should be effectively made whole, because they're only receiving power for 35 years, whereas they're paying for the Maritime Link, which has a service life of 50 years.

So in order to – the Supplemental Energy was a mechanism, in effect, to make the Nova Scotia ratepayers whole as it related to that difference in years.

With respect to subsequent terms, so Nalcor and Emera have agreed to complete a study no later than five years before the end of the initial 35 year term to determine the remaining life. Emera has a right here to enter into negotiations to extend the term if they want, but there's no



obligation on Nalcor's part to accept that. It's a negotiation process.

**MR. LEARMONTH:** So that's totally up to Nalcor.

**MR. BROCKWAY:** Correct. Yup.

And there are some penalty provisions in the Energy and Capacity Agreement related to if Nalcor failed to deliver the Nova Scotia Block to Emera. Effectively, when the commercial power can't be delivered due to what's called a force majeure, a planned maintenance period, a safety event – things that are defined in the agreement as a forgivable event – then effectively, that's characterized as Block A undelivered energy, and effectively, the two organizations simply work together to try and reschedule the delivery of that power under the Late Delivery Procedure that's outlined in the agreement.

If the committed power can't be delivered due to any other reason, effectively then the penalty kicks in where Nalcor is required to deliver 120 per cent of the power, as Compensation Energy, which would include providing the associated GHG credits to Emera with respect to that 120 per cent. And if that delivery –

**MR. LEARMONTH:** Can you just explain – we've referred to this before. Can you just explain, for those who are not aware, what GHG credits are? Just generally.

**MR. BROCKWAY:** The greenhouse gas credits –

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** – that are associated with the Muskrat Falls energy because it's clean energy.

**MR. LEARMONTH:** Okay, so these –

**MR. BROCKWAY:** Okay.

**MR. LEARMONTH:** – are financial incentives – credits?

**MR. BROCKWAY:** Based on my – there are targets that are being put in place by the Nova

Scotia Utility and Review Board, in terms of the use of clean energy.

**MR. LEARMONTH:** All right.

**MR. BROCKWAY:** And these GHG credits are part of that process.

**MR. LEARMONTH:** Okay, thank you.

**MR. BROCKWAY:** If the 120 per cent of Compensation Energy has not been delivered within a year, then effectively Emera has the option to require Nalcor to pay a monetary equivalent of that.

There are other penalty clauses in the Energy and Capacity Agreement as well; given the fact that the agreement was signed prior to project completion, there were also some penalties related to failure to complete the Muskrat Falls, the Labrador-Island Link or the Labrador Transmission Assets. There's some penalties in there related to that as well and they're all part of complex calculations in terms of how Nalcor would make Emera whole on that if that were to occur.

**MR. LEARMONTH:** And these are complex calculations?

**MR. BROCKWAY:** They are. They are.

**MR. LEARMONTH:** They're set out in the schedules, I think, or they're –

**MR. BROCKWAY:** They're set out in the agreement.

**MR. LEARMONTH:** In the agreement – yeah, okay.

Okay, carry on.

**MR. BROCKWAY:** And then there are Dispute Resolution mechanisms in the agreement, which is similar to all of the agreements, which basically provide for resolution through mutual negotiation, and then mediation and then finally through an arbitration or litigation process.

**MR. LEARMONTH:** And that's all specified in the agreement, is it?

**MR. BROCKWAY:** It is. That's the Dispute Resolution mechanism in the agreement.

**MR. LEARMONTH:** All right.

**MR. BROCKWAY:** So in terms of the commentary with respect to ratepayers, you know, we raise a couple of points here.

In terms of the first point and the last point, which are similar, based on effectively the Nova Scotia block being a committed – being committed and fixed in terms of the commitment by Nalcor, and the output of the Muskrat Falls Project being variable or not certain. You know, if the estimated output of the Muskrat Falls Project is lower, that doesn't change the commitment to Nova Scotia under the Energy and Capacity Agreement. So that may have impacts in the sense that it would have – it would create less power which would be available to fulfill native loads. It would create less surplus power which would be available for export, which would be a negative impact, particularly if there – if we were in a market where prices for power were increasing.

**MR. LEARMONTH:** Yeah, and that would – what you're talking about applies in a situation where Muskrat Falls doesn't produce the capacity, that 824 megawatts –?

**MR. BROCKWAY:** Well, if the production is lower –

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** – that does not affect the fixed amount of power that Emera is entitled to receive.

**MR. LEARMONTH:** All right.

**MR. BROCKWAY:** So the power that's left over is a smaller amount –

**MR. LEARMONTH:** Yes.

**MR. BROCKWAY:** – and then – so that creates a negative impact. Now, Nalcor did provide feedback in their responses where they have articulated and pointed out that, you know, the opposite is also true, which is fair. I mean if the output of the Muskrat Falls is higher, then

that creates higher residual power which would be available for export. And they –

**MR. LEARMONTH:** That's the other side of the coin, we'll say.

**MR. BROCKWAY:** That's the other side of the coin.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** Exactly. Which is a fair point.

And they also point out that due to the transmission rates that they're receiving from the Maritime Link, without that – without this agreement with Emera they wouldn't be in a position to capitalize on the excess surplus power anyway because that interconnection to the mainland wouldn't be there. So those are fair points.

Continuing on, coming back to the fixed amount of power that's being received out of the Nova Scotia block. Due to the fact that this amount is fixed, Emera may be paying less than 20 per cent of the total costs but receiving approximately 20 per cent of the power. So that creates an inequity because the Newfoundland and Labrador ratepayers are – would be paying a higher relative share of the development cost versus the power that they're receiving. And as well, any penalties to be paid from Nalcor to Emera for not delivering – and I just went through those penalty provisions – those would be a negative impact to Nalcor as well.

**MR. LEARMONTH:** Okay. Thank you.

You can carry on, please.

**MR. BROCKWAY:** We also performed the comparison and, really, nothing there I would want to highlight. Just that they were fairly consistent, with the exception of the couple of items we noted in our report.

**MR. LEARMONTH:** All right. The third agreement, which is identified on page 22 of the Exhibit, is the Joint Operations Agreement.

**MR. BROCKWAY:** Yes, the Joint Operations Agreement which, effectively, the purpose of

this agreement is to establish the Joint Operations Committee for the transition – for the transmission assets and also provides the mechanism for the sharing of operating and maintenance costs. And again, the commercial terms within this agreement are consistent with the term sheet, but just providing further detail and further details on the agreement.

So it states that Nalcor would be responsible for the operation and maintenance of the Labrador-Island Link and the Labrador Transmission Assets, while Emera is responsible for the operations and the maintenance of the Maritime Link. It provides for the establishment of the Joint Operations Committee formed between Nalcor and Emera and you do see a representation here of four representatives appointed by Nalcor and two being appointed by Emera.

In terms of the decision-making protocol, we do state here that Nalcor's CEO would have the final say, which is what we say under the Maritime Link - Joint Development Agreement. But that again is – was clarified by Nalcor that the decision-making should be made by consensus. But in terms of the resolution, should any disputes arise, really depends on whether it's classified as a financial matter or another matter that's not a financial matter. If it is a financial matter the agreement is that those matters would go before the applicable regulator for resolution. If it's not resolved by the regulator it would be considered a dispute, at which point, the dispute resolution protocol would come into play. And then any other matters that aren't financial matters it's a simple majority vote between the six members of the committee.

In terms of the 20 per cent of the operating and maintenance costs, again, this now outlines the mechanics, which wasn't highlighted in the term sheet, but this outlines the mechanics for the sharing of – the 80-20 sharing of the operating maintenance costs. And, basically, it's done through a process related to long-term asset management plans, or what's referred to there as LTAMP in our paper.

So, basically, the way it works is that the longer-term asset management plans would be prepared for each of the projects. There would be a one-

time, true-up payment, as a result of those long-term asset management plans, whereby all of the costs are analyzed on a per year basis over the life of the project.

And the number – there's been a calculation that's done to determine by year whether Nalcor owes money to Emera to true-up to 20 per cent or whether Emera owes money to Nalcor for the true-up of the 20 per cent.

**MR. LEARMONTH:** Just explain for those who are not aware what the term true-up means –

**MR. BROCKWAY:** The true-up would be –

**MR. LEARMONTH:** – generally.

**MR. BROCKWAY:** Yeah, the true-up would be – so taking a simple example – if you and I have agreed to share costs 80 per cent, 20 per cent, and we aggregate our costs at the end of the project we've been working on and the total costs were 100, and I spent 15 and you spent 85. In the true-up process, we would determine that I owe you \$5 to get me to 20 per cent and to get you down to the 80 per cent. That's effectively what that means.

So this LTAMP process is a process to effectively come up with that true-up. And it would result in a one-time payment – a one-time, true-up payment – related to that. Once that one-time, true-up payment has been completed, each party is then responsible for their actual O&M activities on a go forward basis.

**MR. LEARMONTH:** Thank you.

**MR. BROCKWAY:** At the end of the 35-year term, after first commercial power, the Joint Operations Agreement also outlines the terms where Emera would transfer the Maritime Link – transfer the ownership of the Maritime Link to Nalcor for \$1, along with all related contracts. And there's provisions in there related to Emera employees and how all of that will work out.

**MR. LEARMONTH:** Yeah, just to stop there for a minute.

We were told by Mr. Gerry Shortall, a chartered accountant from, I believe, Toronto, that the Maritime Link is carried on the books of Nalcor as an asset. Even though, I guess, legal ownership of it still remains in Emera. Do you know anything about that?

**MR. BROCKWAY:** I know just from looking at the financial statements of those organizations, I know the accounting that's taken place, but that's about it. So Nalcor has consolidated the Maritime Link in its financial statements.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** Which effectively means it has come to the conclusion that it controls the Maritime Link.

So, then by the way the accounting works is that – it's the results are consolidated. So all of the assets of the Maritime Link are shown as Nalcor assets. All of the liabilities of the Maritime Link are shown as Nalcor liabilities.

**MR. LEARMONTH:** Okay.

And you're not – I know that's not part of your report.

**MR. BROCKWAY:** It's not.

**MR. LEARMONTH:** I just asked because we got that information this week, so we won't hold you to it, but that's your –

**MR. BROCKWAY:** Yeah.

**MR. LEARMONTH:** – you haven't studied that, I take it, but that's your –

**MR. BROCKWAY:** I haven't, but –

**MR. LEARMONTH:** – general understanding?

**MR. BROCKWAY:** It is.

And it's consistent with the way Emera has treated the Maritime Link. So the – Emera is not consolidating the Maritime Link, even though they own it, legally. So that's consistent with the notion that Nalcor controls.

**MR. LEARMONTH:** Okay, that's your general understanding only?

**MR. BROCKWAY:** That's just me –

**MR. LEARMONTH:** General?

**MR. BROCKWAY:** Yeah.

**MR. LEARMONTH:** Yeah. Okay, we won't hold you to it.

Anyway, continue on, please.

**MR. BROCKWAY:** So, other than the comparison, which really didn't identify anything other than the removals of the fact that sanctioning – that –

**THE COMMISSIONER:** Can I just go back, just for a second, just on that last question.

**MR. BROCKWAY:** Sure.

**THE COMMISSIONER:** So, the effect of Nalcor carrying that on their financial books and Emera not, which is what I understand, does that have any consequence, to your knowledge, with regards to – or what consequence, if any, does it have with regards to Nalcor's bottom line, things of that nature?

**MR. BROCKWAY:** That's a good question. I don't really know the answer to that.

It is primarily an accounting determination. It's – it doesn't affect the legal aspects of it. Emera still owns the Maritime Link, legally. It's more of an accounting determination.

**THE COMMISSIONER:** Okay. Thank you.

**MR. LEARMONTH:** Okay. Thank you.

**MR. BROCKWAY:** Okay.

So, as it relates to the impact on ratepayers and taxpayers, we just simply identified the fact that any true-up after the in-service, long-term asset management plans are prepared, any amounts paid by Nalcor or received by Nalcor would represent a cost or benefit as applicable.

**MR. LEARMONTH:** All right.

Now, on – we're on page 23, and you can continue on and discuss the Newfoundland and Labrador Development Agreement.

**MR. BROCKWAY:** Okay.

We actually took the approach to review the Newfoundland and Labrador Development Agreement and the Labrador-Island Link Limited Partnership Agreement together, just because the two agreements interact with each other extensively.

So, when –

**MR. LEARMONTH:** Okay. So, you're just – you're saying your going to review the Newfoundland and Labrador Development Agreement on page 23, item D, at the same time as you review the Labrador-Island Link Limited Partnership Agreement, which is item E on page 24?

**MR. BROCKWAY:** Yes, I think –

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** – it makes sense to review both of them together.

**MR. LEARMONTH:** Yep. Thank you.

**MR. BROCKWAY:** Because they do interact extensively, and, again, the key commercial terms for the Newfoundland and Labrador Development Agreement is consistent with the term sheet. It does establish a Joint Development Committee for the process of project progress on the Muskrat Falls, the Labrador Transmission Assets and the Labrador-Island Link, and Emera would hold two of the six seats on that Joint Development Committee, but since Emera has no real managerial involvement with those assets, all decisions, effectively, are made by Nalcor.

Nalcor owns all of the Labrador-Island Link's transmission rights and for cost overruns not expected to be sanctioned by the PUB, Nalcor would contribute that amount to the LIL Limited Partnership through the exchange in Class C units, and at the end of the service life, Nalcor has an option to acquire all of Emera's LIL

ownership interest for \$1 plus any existing capital that Emera has in the partnership.

And then the Labrador-Island Link Limited Partnership Agreement goes on to talk about how that investment takes place and it's – because of the involvement of Emera in the Labrador-Island Link, it's a very complex agreement. But simply outlines the classes of the limited partnerships. It identifies Nalcor as the general partner. It identifies the fact that the Class A units and the Class B units and the applicable rights to each, which we've highlighted on a table at the top of page 22.

**MR. LEARMONTH:** Is the main one that the Class A voting units are – they're voting units, whereas – and they're owned by Nalcor – then 49 per cent of Class B are non-voting units, is that an important difference?

**MR. BROCKWAY:** No, there are 75 Class A units that have been issued to Nalcor.

**MR. LEARMONTH:** Yeah, okay.

**MR. BROCKWAY:** And there are 25 Class B voting units that have been issued to Emera. So, Nalcor has 75 per cent of the voting rights because it holds 75 Class A units. Emera has 25 per cent of the voting rights because it owns the Class B units.

**MR. LEARMONTH:** Right. Thank you for the clarification.

**MR. BROCKWAY:** Okay.

In terms of the commentary with respect to it – and, again, it's a complex – it's a very complex agreement, but the main point that we're raising in the impact is that Emera – the purpose of the LIL Limited Partnership is that Emera is going to take a 49 per cent interest in all of the transmissions assets, which would include the Labrador-Island Link. It would include the Labrador Transmission Assets and the Maritime Link.

That 49 per cent interest in the total is what's done through the limited partnership. Because Emera, under its regime, is – because it has – is allowed to have a maximum equity percentage in the partnership – the same as what is

approved by the PUB for privately owned regulated electrical utilities – that is set at 45 per cent, whereas Nalcor’s target is 25 per cent.

So that higher relative equity investment by Emera does have an impact on rates. It would effectively increase rates as it relates to the Labrador-Island Link Limited Partnership. So we do highlight that as an impact.

**MR. LEARMONTH:** And that’s at the bottom of page 25?

**MR. BROCKWAY:** Correct.

**MR. LEARMONTH:** Yes, okay.

If you turn to page 26, can you highlight anything that came from your comparison between 2012 and 2014 versions of this agreement?

**MR. BROCKWAY:** Nothing significant, just consistent with the other agreements that we discussed. Only the removal of the terms related to, you know, being contingent on sanctioning – those terms were removed, given that everything had already been sanctioned.

**MR. LEARMONTH:** All right. So that’s your explanation of these – summary explanation of these five of the 13 agreements.

And the next heading I’d ask you to address the matters of regulatory process, the Energy Access Agreement and Energy Access Agreement’s impact to Newfoundland and Labrador’s ratepayers and taxpayers. Just carry on, take us down beginning on page 26.

**MR. BROCKWAY:** So the Energy Access Agreement, as previously mentioned, was entered into to satisfy the Nova Scotia UARB requirement to have a commercial agreement in place ensuring that Nova Scotia Power had access to Muskrat Falls and –

**MR. LEARMONTH:** So just for the – for those who aren’t aware that in July 2013, I understand the Nova Scotia UARB stated that they would not approve the Maritime Link as presented to them unless there was a contractually solid obligation which required Nalcor to offer market-priced energy to Emera. Is that correct?

**MR. BROCKWAY:** To Nova Scotia Power.

**MR. LEARMONTH:** Yeah. And then – Nova Scotia Power and then, following negotiations, the Energy Access Agreement was signed and – thereby meeting the conditions set by the Nova Scotia UARB and then the Maritime Link was approved? Is that generally correct?

**MR. BROCKWAY:** That’s correct.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** Yes.

**MR. LEARMONTH:** So that’s the background, so just take us through that, please.

**MR. BROCKWAY:** So that’s the background. So in terms of the key terms of the Energy Access Agreement, so Nalcor has made a commitment in that agreement to make available to Nova Scotia Power 1.2 terawatt hours of non-firm energy – non-firm meaning that the delivery may be interrupted for whatever reason by Nalcor.

That commitment will begin upon first commercial power and will end in 2041. So the requirement to make available 1.2 terawatt hours of non-firm energy is – the total commitment will be 1.2 times however many years are between first commercial power and 2041. So it is subject to change depending on when first commercial power happens.

The energy that’s made available to Nova Scotia Power is in excess of the energy that’s required by Nalcor to satisfy Newfoundland and Labrador’s native load and the Nova Scotia Block. So that’s basically what’s defined in the agreement as available energy. It’s energy that is after satisfying those two requirements.

And the annual availability of energy could be up – could be as high as 1.8 terawatt hours, but it also could be as low as zero depending on the Nalcor forecasts, which we’ll touch on in a moment. And in years where Nalcor’s available energy falls short of the 1.2 terawatt hours, it is obliged to provide additional available energy for the remainder – for the remaining years to make up that shortfall.

**MR. LEARMONTH:** The – is it correct that there has to be at least 1.2 terawatts offered, on average, right up until August 2041?

**MR. BROCKWAY:** On average.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** For all of the years, yes.

**MR. LEARMONTH:** It can be as high as 1.8.

**MR. BROCKWAY:** It can be high as 1.8.

**MR. LEARMONTH:** Okay.

**MR. BROCKWAY:** So, for example, if, in the early years, Nalcor provides in their forecasting available energy of 1.8 terawatt hours, it would reduce the overall commitment required in future years.

**MR. LEARMONTH:** Yes.

**MR. BROCKWAY:** So in terms of the processes, Nalcor does commit to provide, on a monthly basis, Nova Scotia Power with a rolling 24-month forecast where they will outline the available energy. And, again, the available energy is after satisfying native load and Nova Scotia Block.

And then once per year Nova Scotia Power has the option to enter into a solicitation for non-firm energy. Again, it's an option; Nova Scotia Power has no requirement or obligation to issue a solicitation. They can if they want to.

**MR. LEARMONTH:** So Nalcor has an obligation to offer –

**MR. BROCKWAY:** Provide the forecast.

**MR. LEARMONTH:** – electricity – provide the forecast and thereby offering it, but it's up – Nova Scotia Power is under no obligation to take it.

**MR. BROCKWAY:** To actually issue a solicitation. That's correct.

**MR. LEARMONTH:** Yeah.

**MR. BROCKWAY:** And if that were to happen, Nalcor still gets credit –

**MR. LEARMONTH:** For having offered it.

**MR. BROCKWAY:** – for having the available energy in the forecasting.

**MR. LEARMONTH:** Yes.

**MR. BROCKWAY:** The one commitment is that if Nova Scotia Power does issue the solicitation, Nalcor is committed to bid into that solicitation. So that must happen. There's guidance in the Energy Access Agreement around pricing, how Nalcor would have to price the energy up to and including – not to exceed the mass hub price from New England or the higher price of any alternative liquid market opportunity that would be available to Nalcor.

If there's an extended dry period or other difficulty that would be identified by Nalcor in its forecast of available energy – so if, for example, Nalcor was forecasting that it would not be able to meet the commitment of an average of 1.2 terawatt hours per year, then we're into a situation where Nalcor would declare a variance, and effectively meaning we don't forecast that we'll have the available energy to meet the commitment.

If the variance does take place, the variance is then divided by the remaining years in the Energy Access Agreement to come up with an annual variance amount. And the way the annual variance amount is dealt with is Emera is responsible for the first 300 gigawatt hours per annum. So if the annual variance amount is under 300 gigawatt hours, Emera is solely responsible for making up the shortfall. If the annual variance amount is above 300 gigawatt hours, Nalcor is responsible for the amount above 300 gigawatt hours. But there's no sourcing requirements attached to variance energy; Nalcor could obtain that power however they wanted.

There are options within the agreement as well that Emera could satisfy the obligation of any variance with the construction of new intermittent energy facilities, and there's terms in the agreement related to how that would work. And any related balancing services that

would be required by Nalcor if that were to happen, that's also dealt with in the Energy Access Agreement.

And, finally, in the event that Nalcor satisfies the commitment – for example, in the scenario we talked about earlier – by offering available energy of 1.8 terawatt hours in the early years, if it's met the aggregate commitment prior to the end of the agreement, Nalcor still is required to offer its forecast available energy in Nova Scotia Power's annual solicitation process through the full term of the agreement. So even when the commitment gets met, that requirement is still there until 2041.

**MR. LEARMONTH:** All right.

**MR. BROCKWAY:** So in terms of the impacts and the implications, really, there is no implication to ratepayers in Newfoundland and Labrador since Newfoundland's native loads take priority over the Energy Access Agreement. So it's clear within the agreement, in various aspects of the agreement, that the Newfoundland native load takes priority over the Energy Access Agreement. Nalcor has full discretion in terms of when and how it can deliver the power.

However, if the energy isn't available – if the available energy isn't available and Nalcor has to source variant energy outside of the region, there is the potential for incurring additional costs related to tariffs and transmissions. However, Nalcor has provided us some clarification around that. They consider that – they consider the chances of that happening to be very low. So I just wanted to highlight that as well.

**MR. LEARMONTH:** All right.

You want to continue on, please?

**MR. BROCKWAY:** The next section deals with the comparison of oversight that we have seen between the UARB and the PUB. And going back to the PUB process and highlighting a little bit of the history there: In 2011 the government directed the PUB to review and report on whether the development represented the least-cost option of power to Island Interconnected customers.

As part of that, the PUB engaged Manitoba Hydro International as its expert consultant. They did issue their final report in March of 2012 where they highlighted issues around the availability of information, the timing of information, the fact that the information was not detailed enough or it was incomplete, so the PUBs noted in its decision that, effectively, it did not have sufficiently detailed or updated information to make an informed decision.

When we compare that to the Emera and UARB experience, the UARB review was commenced subject pursuant to an application that was made by NSP, Maritime Link Incorporated in January of 2013. They filed an application with the UARB to get approval for the Maritime Link costs.

There were – through that process, there was a technical conference held. There were 23 formal interveners and advisors in place. The UARB board counsel also hired their own advisors, Morrison Park, to review the detail of the information that was submitted by NSPML. And the UARB did have the benefit of much more detailed and up-to-date information as it related to their decision as to whether to approve or not.

They also reviewed a list of 17 reference questions starting with: Does the Maritime Link Project represent the lowest long-term cost alternative for ratepayers in the province? And we've listed the other questions that they reviewed and analyzed as part of their decision on the bottom of page 29 and on page 30.

And, effectively, the main driver in the comparison is the availability of information to make an informed decision. And I think timing was a big factor in that because of the timing of the PUB's decision, being in March of 2012, the UARB's decision being in July of 2013. The UARB had much more detailed, up-to-date and complete information in allowing them to make their decision – conditional decision nonetheless, but they were able to make their decision.

**MR. LEARMONTH:** Okay.

Is that – does that conclude your presentation –

**MR. BROCKWAY:** Yes.



**MR. LEARMONTH:** – Mr. Brockway?

All right, so I have no further questions of this witness. Before I turn the matter over to cross-examination, I would like to thank Nalcor and their counsel, Dan Simmons and Dana Martin, for taking the time and making the effort to provide the commentary which is of assistance to the Commission.

So with those comments, I conclude my examination-in-chief.

**THE COMMISSIONER:** Thank you.

And I echo those comments. I appreciate the effort of Nalcor to assist on this.

I think we'll take our break here now and then we'll start with any questions anyone might have after that. So we'll take 10 minutes here now.

**CLERK:** All rise.

### Recess

**CLERK:** Please be seated.

**THE COMMISSIONER:** All right, Newfoundland and Labrador – the Province of Newfoundland and Labrador?

**MR. RALPH:** No questions.

**THE COMMISSIONER:** Okay.

Nalcor Energy.

**MR. SIMMONS:** Thank you, Commissioner.

Mr. Brockway, let me start first by also saying thank you for taking the time to respond to the commentary that was submitted on behalf of Nalcor Energy, because I think it's really expedited the whole process and it's cut down an awful lot of time that we might have had to spend otherwise working through some of these things.

**MR. BROCKWAY:** Okay.

**MR. SIMMONS:** So I just have a few things leftover that I want to ask you about, nothing too much.

And Mr. Learmonth took you through the main body of all your report. There's also an Executive Summary at the beginning, so I'm going to use some points from the Executive Summary starting on page 6 of Exhibit 00453, please.

So on page 6 there's a section there headed: Impact to NL's Ratepayers and Taxpayers. And am I correct that what's on this page and page 7 is really just a point-form summary of some of the things you worked through in more detail with Mr. Learmonth a little bit earlier?

**MR. BROCKWAY:** That's right. It basically takes – for the individual contracts we reviewed and we identified the impacts, we've taken all of those and summarized it in the executive summary.

**MR. SIMMONS:** Right. So we've collected them here together in one place, okay?

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** I'm going to take you to the second bullet on page 6, which is lines 14 to 22. And in order to ask my question and have it understandable I'm going to have to read this again. So I'll read the paragraph out and then I'll give you my question after.

It says: In terms of the consideration that Emera would receive, they would receive a fixed amount of power from Muskrat Falls at 0.96 terawatt hours annually, plus the supplemental energy expected to be 240 gigawatts annually, et cetera, that approximates 20 per cent of Muskrat Falls annual estimated output of 4.9 terawatt hours based on initial estimates.

So I gather what you're saying there is the initial estimate for the power to be produced by the generating plant to be built at Muskrat Falls was 4.9 terawatt hours, which is a measure of the total energy produced in the course of a year. Is that what you understood it to be?

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** And that the deal was that Emera was going to get 20 per cent of that amount. And that's the commitment that you've

described earlier as being a committed amount of power that has to be paid.

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** Then you say: However, if actual output becomes lower, Nalcor will have to provide more than 20 per cent of Muskrat Falls power to Emera since the Nova Scotia Block is fixed. And then you say: Nalcor may have to find power elsewhere if it's insufficient, and this would result in less power available for export and so on.

So – and you've acknowledged already with Mr. Learmonth's questions that if the converse were true, that if the plant actually produces more than 4.9 terawatt hours per year, then there's an upside benefit to ratepayers or taxpayers in Newfoundland and Labrador.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** Right, yeah.

So my question is: Why consider possibility that there could be higher or lower output from the plant? Was that something that you made any inquiry into or were asked to conduct any investigation of to determine if there's any risk that the power could be different than 4.9 terawatt hours?

**MR. BROCKWAY:** No. No, we didn't – we weren't asked to investigate that possibility any further.

**MR. SIMMONS:** Right. Okay.

So what you're identifying here is if, for some reason, there were a difference in the power produced by the plant, this would be the consequence one way or the other, this is a place it would show up as having an effect.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** But as for whether or not it's likely or expected to be any variance is not something you've got any opinion on.

**MR. BROCKWAY:** I've got no opinion on that.

**MR. SIMMONS:** Okay, all right.

And then if we look at the next bullet, which goes from lines 23 to 29, this one deals with – it says: While Emera would be receiving a fixed amount of power from the Nova Scotia Block, their share of the development costs would be lesser of – the lesser of the Maritime Link's development costs or 20 per cent of the total estimated development costs for all of the defined assets. And the defined assets are the Maritime Link; the Labrador Transmission Assets, which is the line from Churchill Falls to Muskrat Falls; the plant in Muskrat Falls; and then the transmission from Muskrat Falls down to Soldiers Pond on the Island. That's the –

**MR. BROCKWAY:** The four projects.

**MR. SIMMONS:** Yeah, okay. Then you say: Depending on the actual output of the Muskrat Falls plant, Emera may be paying less than 20 per cent of the total actual development costs for the entire project, but receiving approximately 20 per cent of the power or more.

So that potential consequence of Emera paying less than 20 per cent but receiving 20 per cent of the power, is that dependent on that statement you've made there on the actual output of the plant being different than projected?

**MR. BROCKWAY:** I guess it isn't. It's more – and the reason we raise this point was just who is footing the relative share –

**MR. SIMMONS:** Mm-hmm.

**MR. BROCKWAY:** – of the cost. That's not dependent on the output of Muskrat Falls. That's really dependent on – because Emera's allocation, if you will, from the plant is fixed. So it's really more of a cost point that Emera may be paying less than 20 per cent of the cost but receiving, in effect, 20 per cent of the power.

**MR. SIMMONS:** Okay.

So this is a point we hadn't picked up on before. So this reference to tying that to the plant output isn't correct, is it?

**MR. BROCKWAY:** It's not dependent on the actual output of MFP.

**MR. SIMMONS:** Yeah.

**MR. BROCKWAY:** You're right.

**MR. SIMMONS:** Okay, good.

And on the next page, on page 7, please. The first black bullet here says: With respect to the promised power to be delivered from Nalcor to Emera and then there's a sub-bullet and it refers to penalties that could be paid that are provided for in the agreement. And you've given us an explanation of those in some detail earlier.

First question: Was it part of any of your work to assess the likelihood or the possibility that the circumstances would arise that would trigger the payment of any penalties?

**MR. BROCKWAY:** No.

**MR. SIMMONS:** Okay.

Now, from work you've done in looking at other commercial agreements in different circumstances, is it unusual to see the parties turn their minds to what the consequences would be if someone can't perform their obligations?

**MR. BROCKWAY:** What was the question? Is that unusual?

**MR. SIMMONS:** Is that unusual?

**MR. BROCKWAY:** No, it's not.

**MR. SIMMONS:** Okay. And putting – prescribing what a penalty or a payment might be in the event that one party or the other can't perform their contractual obligations, that's not an uncommon way to address that issue, is it?

**MR. BROCKWAY:** That would be standard in commercial agreements, yes.

**MR. SIMMONS:** Right. Would you agree as well that by prescribing a specific penalty, it's creating certainty where otherwise there might be uncertainty about what the cost consequences would be if one party fails to live up to its commitments?

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** Okay. And that there's an advantage to creating that kind of certainty to the contracting parties, as long as the amount of the payment or penalty is a reasonable one?

**MR. BROCKWAY:** It's beneficial, yes.

**MR. SIMMONS:** Yeah, okay. And similarly, there's a reference there to arbitration, and you've said, I think, that there are dispute resolution clauses in these agreements.

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** Would you agree also that having dispute resolution clauses that provide for arbitration are generally regarded as being a less expensive means of resolving disputes than resorting to the courts?

**MR. BROCKWAY:** I don't have very much experience in arbitration, so I really don't know if it costs more or less in that regard. I can't answer that.

**MR. SIMMONS:** In the commercial agreements you've reviewed in your auditing and insurance work, is it common or uncommon in your experience to see arbitration provisions or alternate dispute resolution provisions –?

**MR. BROCKWAY:** Dispute resolution would be common.

**MR. SIMMONS:** Okay, thank you.

And the next bullet there says: "The Nova Scotia Block is committed to Emera and will represent approximately 20% of total power output or more. If output is less than forecast or market prices for power" – increase – "... the Nova Scotia Block commitment limits the availability of surplus power for export to other markets, which would negatively impact NL's taxpayers."

So is what you're saying here that – is that because there's a certain amount of power committed to Nova Scotia, taxpayers could be impacted in two circumstances. They could be impacted by recovering less money from the sale of export power if either there's less export power to sell, or if the market is really good and they don't get to take advantage of it.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** That's – okay.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** Now, the first of those is again dependent on if output is less than forecast –

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** – correct? So we don't know, it could be more than forecast and you've done nothing to determine if it's even likely that there would be any difference from the forecast power.

**MR. BROCKWAY:** That's correct.

**MR. SIMMONS:** Now, the next bullet, this one's a little more complicated and I don't know if we're going to be able to work this through, but we'll give it a try.

**MR. BROCKWAY:** Okay.

**MR. SIMMONS:** Okay.

So the next one says: "With respect to the LIL LP arrangements: Regardless of the actual development costs for each of the transmission assets ... Nalcor would take 51% interest in the transmission assets and Emera would take the remaining 49% interest through their respective investment in LIL LP."

So correct me if I'm wrong, but I think the arrangement is that there's a limited partnership put in place, which is owned partly by Nalcor and partly by Emera, it may be through other corporate vehicles, and it's that partnership that actually owns the transmission assets? Which are – is the Labrador Transmission Assets, the LTA, which is the line that goes from Churchill Falls to Muskrat Falls – no, I'm sorry, just the LIL. It's the line from –

**MR. BROCKWAY:** Just the LIL.

**MR. SIMMONS:** – Muskrat Falls, on to the Strait of Belle Isle, down to Soldiers Pond, near St. John's here.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** Okay.

And then you get into discussing the fact, that you pointed out earlier, that Emera because it is a private utility, is allowed under the public utility board rules, to put up to 45 per cent equity in its regulated investments.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** Correct.

So that they can put 45 per cent of their own money in and 55 per cent has to be borrowed money.

**MR. BROCKWAY:** Debt. Correct.

**MR. SIMMONS:** Debt.

**MR. BROCKWAY:** Mm-hmm.

**MR. SIMMONS:** And a consequence of that is that the way these utilities are regulated, debt can be cheaper for the ratepayer than paying the equity, 'cause the owner, the utility, gets a bit of a higher return on their equity than they do on the debt.

**MR. BROCKWAY:** Correct.

**MR. SIMMONS:** (Inaudible), right?

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** And you said that what you're anticipating here that might be an issue is that Nalcor would not be investing as much equity in the LIL as Emera would be.

**MR. BROCKWAY:** If Nalcor –

**MR. SIMMONS:** Have I got that right?

**MR. BROCKWAY:** – were to make this investment on its own –

**MR. SIMMONS:** Yes.

**MR. BROCKWAY:** – it would've likely financed that investment with less equity than 45 per cent.

**MR. SIMMONS:** Right, so by making the comparison, what you're doing is you're saying here's – we're gonna compare what this investment in the LIL would look like if Nalcor did it on its own, compared to this deal that Nalcor has with Emera.

And why do you say that if Nalcor invested on its own – what's your assumption about what the proportion of debt and equity would be if Nalcor were to build it on its own?

**MR. BROCKWAY:** It was articulated – and I'm trying to recollect where I saw it, I believe it was in Newfoundland Hydro's financial statements, or perhaps it was in Nalcor's annual report where they stated that for regulated operations they target a debt-to-equity ratio, 75-25.

**MR. SIMMONS:** Okay.

So that would be the target, 75-25.

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** Now, under these arrangements that are in place under the Nalcor-Emera deal, 75-25 split between debt and equity is also possible for the Labrador-Island Link. Correct?

**MR. BROCKWAY:** It is possible, yes.

**MR. SIMMONS:** Yes. Okay.

And maybe what we can do now is we can go to Exhibit 00606, please? We'll go to page 2.

So 00606 is the Grant Thornton responses to the commentary that Nalcor submitted. On page 2, if we scroll down to number 5, this is the back and forth here that we've had so far –

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** – on this particular issue.

So it started with the – a reference to what was stated in your report, which I just brought you to then. And it says: "... Grant Thornton states that subject to the maximum equity percentage approved by the PUB for privately owned regulated electrical utilities set at 45%, Emera

can decide, at its own discretion, how much of that interest is in debt versus in equity. This could result in ... higher relative equity investment compared to if Nalcor were to make the LIL investment on its own."

**MR. BROCKWAY:** Okay.

**MR. SIMMONS:** So I read that as being a suggestion that Emera has the ability to make a decision in its own interest that results in a relative debt-to-equity investment in the LIL, which is less favourable to Newfoundland ratepayers than the 75-25 split that you spoke about a moment ago.

Is that what I'm –

**MR. BROCKWAY:** Yes, they –

**MR. SIMMONS:** – (inaudible)?

**MR. BROCKWAY:** – have the ability to go to the full 45 per cent equity.

**MR. SIMMONS:** Right.

Now, in the response that was provided by Nalcor, it was submitted that: "... This conclusion fails to reflect Emera's equity participation in the LIL and the resulting impact it has on the overall debt to equity ratio ... of the LIL Partnership. While Emera may select its" – debt-to-equity ratio – "at 55:45, Nalcor's corresponding" – debt-to-equity ratio – "must be adjusted to comply with the overall target" – debt-to-equity ratio for the LIL limited partnership – "at 75:25 in accordance with the FLG financing."

So, now, you made some commentary on that. But let me ask you first: What was it about that statement that you took issue with? Is there anything in that statement that you disagree with?

**MR. BROCKWAY:** Yes.

It's the third line, which states: Nalcor's corresponding DER, debt-to-equity ratio, must be adjusted.

**MR. SIMMONS:** Okay.

Yeah, I thought that might've been it. Because if we scroll down to the end of your response there, if we scroll down to page 3, down to the last purple paragraph there. You said: Nalcor may, at its discretion, adjust its target debt to equity ratio to bring the partnership target debt to equity ratio to the maximum allowed of 7.25 [sp 75:25], but it is not a requirement of the NLDA to do that.

**MR. BROCKWAY:** It's not a must.

**MR. SIMMONS:** Right, so the difference is Nalcor had stated it's a must and you're pointing out that it's not a must, Nalcor has a choice whether they do that or not.

**MR. BROCKWAY:** They could do the math to figure out the target they want to achieve for the partnership and make those adjustments accordingly.

**MR. SIMMONS:** So, even though Emera has a choice to decide whether it's going to invest up to 45 per cent equity, Nalcor still has the ability to counter that by adjusting its own equity investment so that the result for the ratepayer is still 75-25 debt to equity ratio in the LIL.

Is that where we –

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** – where we end up?

It is.

**MR. BROCKWAY:** Yes.

**MR. SIMMONS:** Okay, good.

Okay, so let's go back to Exhibit P-00453, page 7, which is your executive summary. And I only have one more point to ask you about there.

This concerns the Energy Access Agreement, so – scroll down a little more, Madam Clerk, please. Okay, if you can stop there.

So, rather than read this whole paragraph I'll start on line 29 and there's a statement there that says: "Therefore if MF's actual output was lower than expected, Nalcor may need to import additional energy and incur additional tariffs and

transmission costs to fulfill its obligations under the EAA ..."

So, my question simply is: Is that another effect that you've identified that would be dependent on the plant actually producing less power than had been anticipated?

**MR. BROCKWAY:** It is.

**MR. SIMMONS:** It is.

Okay. Good.

Thank you.

I don't have any other questions.

**THE COMMISSIONER:** All right.

Concerned Citizens Coalition.

**MR. BUDDEN:** Good afternoon, Mr. Brockway.

My name is Geoff Budden. I'm the lawyer for the Concerned Citizens Coalition, which is essentially a group of individuals who have been concerned with the Muskrat Falls development for a number of years now. I don't have a lot for you; I have a handful of questions.

And I'd like to start – just to see if I understand this. So if there are cost overruns on Muskrat Falls generating station itself – is there any scenario under which the – Emera would be responsible for those overruns?

**MR. BROCKWAY:** No. Nalcor would be 100 per cent responsible for those cost overruns.

**MR. BUDDEN:** Sure.

And same with the Labrador-Island Link, I assume? Is there any scenario where Emera would be responsible for those cost overruns?

**MR. BROCKWAY:** No.

**MR. BUDDEN:** Okay. When it comes to Maritime Link, obviously there is a scenario you outlined where both Emera and Nalcor would potentially be responsible for overruns there.

**MR. BROCKWAY:** That's correct.

**MR. BUDDEN:** And there's a formula – I believe the first 5 per cent of overruns are born by Emera; the next 5 per cent by Nalcor. And anything above that, there would be a shared responsibility.

**MR. BROCKWAY:** That's right.

**MR. BUDDEN:** Okay.

Perhaps we could go to page 28 of your report, which if you're going from your paper edition, is your own page number 25. It's 28 of the Exhibit.

You have a section there, which you've entitled: "Comparison of Oversight: UARB vs. PUB." Would it be a fair characterization there that the PUB oversight was limited to the one reference question – limited to the relative cost of the two options: Island versus – Isolated Island versus Interconnected Island?

**MR. BROCKWAY:** Yes. There was one reference question posed to –

**MR. BUDDEN:** Okay.

**MR. BROCKWAY:** – the PUB.

**MR. BUDDEN:** The UARB, by contrast, are the much more robust oversight role. Would you agree with me there?

**MR. BROCKWAY:** Yes.

**MR. BUDDEN:** Okay. Are you able to opine, I guess, on the consequences for how these agreements evolved because of the relative robustness of the two regulatory regimes?

**MR. BROCKWAY:** No. I'm not really in a position to answer that.

**MR. BUDDEN:** Okay. Why not?

**MR. BROCKWAY:** I have no way of knowing what impact it would have. It's a hypothetical situation. I mean –

**MR. BUDDEN:** Sure.

**MR. BROCKWAY:** – it wasn't part of the reviewing of the agreements that I was asked to do.

**MR. BUDDEN:** Okay. 'Cause you took the agreements as you found them. You didn't research how they evolved through negotiation or otherwise?

**MR. BROCKWAY:** Correct.

**MR. BUDDEN:** Okay.

Still on that page, just up a little bit. Under "Impact to NL's taxpayers and ratepayers," you've written a short little passage here. Perhaps you could just read for us on line 17 and 18?

**MR. BROCKWAY:** "Since NL's native loads would take priority over the energy to be exported to NSPI as required by the EAA, there are no impact to NL's ratepayers."

**MR. BUDDEN:** Okay. So a couple of questions about that. I guess the first one is – so that's obviously your interpretation of the Energy Access Agreement. Is that a – like, a specific passage in the agreement or do you sort of take it as the totality of the agreement?

**MR. BROCKWAY:** I take it in totality of the agreement because there are several references in the agreement to Nalcor having the discretion to not deliver the power under the Energy Access Agreement, to satisfy Newfoundland native load.

**MR. BUDDEN:** Okay. Can you just take me to one of those passages? Just so that I can understand what you're – how you got there?

**MR. BROCKWAY:** Um.

**MR. BUDDEN:** Do you have that – the agreement in front of you as a schedule?

**MR. BROCKWAY:** (Inaudible.)

**MR. BUDDEN:** I'm sorry, I don't have the exhibit number.

**UNIDENTIFIED FEMALE VOICE:**  
(Inaudible.)

**MR. BROCKWAY:** This is the Energy Access Agreement –

**MR. BUDDEN:** Yes.

**MR. BROCKWAY:** – which I believe is P-00462.

**MR. BUDDEN:** Okay.

**MR. LEARMONTH:** Tab 13.

**MR. BROCKWAY:** Tab 13.

**MR. LEARMONTH:** Thirteen.

**MR. BROCKWAY:** One of the areas where I made this observation was under section 3.6.

**MR. BUDDEN:** Yeah.

And perhaps you could guide the clerk into bringing us there? Three point six; what page is that?

**MR. BROCKWAY:** Oh I'm sorry, page 30.

**MR. BUDDEN:** Okay.

Okay, sorry. Carry on, I (inaudible).

**MR. BROCKWAY:** So in the preamble there in the first three lines, it states that, "Nalcor may, at its option and sole discretion, postpone and reschedule the delivery of Energy ... otherwise obligated to ..." be delivered.

So that's one example of the discretion that Nalcor has to not deliver the energy because the energy under the – this Energy Access Agreement is what's characterized as non-firm energy, which means –

**MR. BUDDEN:** Sorry, as non –?

**MR. BROCKWAY:** Non-firm.

**MR. BUDDEN:** Okay. Yeah.

**MR. BROCKWAY:** Which means Nalcor holds the ultimate discretion as to – they can cancel delivery and reschedule delivery at their discretion.

**MR. BUDDEN:** Okay. And obviously it's in accordance with the following – we don't necessarily need to walk through them all, but you're saying, as the qualified expert here today that these conditions that are set out there following: A, do support your assertion that the – that Newfoundland's native loads would take priority over the energy to be exported?

**MR. BROCKWAY:** That's one example of ... there's a few in the agreement. Yes.

**MR. BUDDEN:** Okay and you're confident in that conclusion.

**MR. BROCKWAY:** Yes.

**MR. BUDDEN:** Okay.

How – I guess where does that leave the UARB's findings that the ML – that the Maritime Link has to provide the least-cost solution for Nova Scotia ratepayers?

**MR. BROCKWAY:** That helped the UARB in arriving at their conclusion because the conclusion depended on Nova Scotia Power having access to Nalcor market-priced energy.

**MR. BUDDEN:** Okay, but if we have here, I guess, a conflict between the Newfoundland's native loads and their priority, if they are to take priority how does that – how, in that case, can the EAA support the – or how can that be squared with the requirement that the Maritime Link deliver the power to the Nova Scotia ratepayers?

**MR. BROCKWAY:** It's the mechanics of the EAA and the process in place whereby Nalcor, on a monthly basis, is required to provide a forecast of available energy for the next 24 months. So both organizations are able to plan accordingly to make sure that the commitments are met.

**MR. BUDDEN:** Okay.

If we can go back – and this is more of, I guess, a general observation – but it would be pages 19 through 21 of your report. So perhaps you can just turn to page 19 to see if you need to – as my questions unfold, whether you need to reference anything.



Am I – firstly, am I correct in my understanding that the obligation to deliver power under the agreements does not begin until Muskrat Falls is in commercial service, has been – you know, the completion of the project. Or am I wrong on that?

**MR. BROCKWAY:** I believe there is an ability under the ECA for Emera to access pre-commissioning power. I haven't summarized that in this agreement.

**MR. BUDDEN:** Access from where?

**MR. BROCKWAY:** Prior to first commercial power being generated there will be energy generated from Muskrat Falls. There would be an ability for Emera to access that in the energy and capacity agreement.

**MR. BUDDEN:** Okay, so does it flow from that that there is a consequent obligation on the part of Nalcor to deliver that power?

**MR. BROCKWAY:** I don't recall.

**MR. BUDDEN:** Okay.

Thank you. I have no further questions.

**THE COMMISSIONER:** All right, Edmund Martin?

**MR. SMITH:** Good day, Sir.

Harold Smith. I represent Ed Martin, former CEO of Nalcor.

**MR. BROCKWAY:** Good afternoon.

**MR. SMITH:** I only have, perhaps, two or three questions to deal with.

I noticed in your description of the Newfoundland and Labrador Development Agreement at page – starts at page 23, line 25, there's no reference to – at least I can't find it – a provision in the agreement that allows for Nalcor to invest equally with Emera. Are you familiar with that?

**MR. BROCKWAY:** Through –

**MR. SMITH:** Emera invests in Newfoundland assets through the partnership –

**MR. BROCKWAY:** Yes.

**MR. SMITH:** – (inaudible) that you described, but I didn't see any reference to Clause 5.17, which gives Nalcor the right to invest in Emera's assets in Nova Scotia.

**MR. BROCKWAY:** No, that's not referenced in this report.

**MR. SMITH:** Is there a reason why it wasn't referenced?

**MR. BROCKWAY:** Not that I can recall.

**MR. SMITH:** With respect to the agreement, which is found at page 28 – or the discussion of the agreement, page 28 – you indicate that there is – in lines 17 and 18 – since Newfoundland's native loads would take priority over energy exposed to – exported to NSPI as required by the Energy Access Agreement, there's no impact on NL tax ratepayers.

My understanding is, though, that the Energy Access Agreement, which was signed as a result of the UARB decision, is a provision for power in excess of the block – the Nova Scotia block. Is that –?

**MR. BROCKWAY:** In excess of the Nova Scotia Block and the Newfoundland native load.

**MR. SMITH:** Right. So that excess power – the agreement that we're talking about here, that's the EAA and the – and I think you brought in a discussion of the partnership agreement. In that particular agreement, the sale of that power under the EAA, wouldn't that create a return for Nalcor, a positive financial return, selling the excess power at market rates?

**MR. BROCKWAY:** It would.

**MR. SMITH:** Okay.

**MR. BROCKWAY:** It would.

**MR. SMITH:** That met –

**MR. BROCKWAY:** The assumption we've made is that they're selling the power regardless.

**MR. SMITH:** Right.

**MR. BROCKWAY:** They're either selling it to Nova Scotia Power or they're selling it to someone else.

**MR. SMITH:** But in terms of the agreement, whereby the commitment is made, okay, to sell the power, wouldn't that create a benefit for the Newfoundland taxpayer – or, sorry, ratepayer?

**MR. BROCKWAY:** No, it does not impact the rates. It doesn't impact the rates that Newfoundland Hydro would charge the ratepayer.

**MR. SMITH:** Okay.

**MR. BROCKWAY:** Because it's not related to the costs of the projects.

**MR. SMITH:** But I'm just saying no impact, I think it says, on Newfoundland ratepayers. But the sale of that energy, you know, a lot of the way through your report, you talk about lessened output, okay?

**MR. BROCKWAY:** Mm-hmm.

**MR. SMITH:** But that lessened output would have to be greater than the combination of the block for Nova Scotia and the necessary power for Newfoundland before you'd have to go to other sources, wouldn't it?

**MR. BROCKWAY:** I'm not sure I understand.

**MR. SMITH:** Okay, let's – my understanding is that the commitments made to Emera are the Nova Scotia Block.

**MR. BROCKWAY:** Uh-huh.

**MR. SMITH:** And the – under the EAA, there's no commitment unless the Nova Scotia Block is looked after and the Newfoundland requirement.

**MR. BROCKWAY:** Right.

**MR. SMITH:** Correct. Okay.

So if output of the Muskrat Falls facility falls low – lower so that Nalcor has to source energy from somewhere else, it has to be a reduction down to at least those two loads.

**MR. BROCKWAY:** No, under the Energy Access Agreement that would be dealt with through this variance process.

**MR. SMITH:** Okay.

Okay. Is there any particular reason why on page 28 you did not refer to the 87,000 per megawatt in relation to the – I think it's referred to as a balancing service.

**MR. BROCKWAY:** It's the balancing services.

**MR. SMITH:** Yeah, any particular reason why you didn't –

**MR. BROCKWAY:** No.

**MR. SMITH:** – reference that?

**MR. BROCKWAY:** No.

**MR. SMITH:** Okay.

**MR. BROCKWAY:** I was just highlighting the terms.

**MR. SMITH:** Okay. What effectively is that, the 87,000 per megawatt?

**MR. BROCKWAY:** If under the variance, the terms related to the variance, Emera has the choice in settling their 300-gigawatt hour annual requirement, if there is a variance, they can construct new intermittent energy facilities in Nova Scotia, things that would include wind power, solar power, tidal power. Because the nature of that power is intermittent and not 100 per cent reliable, Nalcor would provide what's called balancing services whereby they would purchase power from those intermittent facilities and then resell the power back to Emera when they needed it.

**MR. SMITH:** And at a set rate?

**MR. BROCKWAY:** Yes.

**MR. SMITH:** Okay.

Thank you, Sir.

**THE COMMISSIONER:** Kathy Dunderdale.

**MS. E. BEST:** Good afternoon, Mr. Brockway, I'm Erin Best. I'm counsel for Kathy Dunderdale.

**MR. BROCKWAY:** Good afternoon.

**MS. E. BEST:** You didn't interview – you did not interview Kathy Dunderdale in preparing your report, did you?

**MR. BROCKWAY:** No.

**MS. E. BEST:** Now, with respect to the – I'm going to go to the portion of your report that deals with the UARB and PUB comparison, okay.

So, you compared the processes and the level of review undertaken by the UARB and the PUB. Did you analyze why those processes were selected?

**MR. BROCKWAY:** Why the processes were selected by the applicable regulatory body?

**MS. E. BEST:** Precisely.

**MR. BROCKWAY:** I didn't. I did not review the reasons why – the reason for the UARB is a pretty clear one. They received an application from NSP Maritime Link to approve the costs, so thereby they had to enter into the process to review that application.

**MS. E. BEST:** Okay, but the steps in the process, specifically, or the aspects of the process, did you analyze why?

**MR. BROCKWAY:** No. No, we did not.

**MS. E. BEST:** No, okay.

And what about why the level of review was what it was? Did you look at why?

**MR. BROCKWAY:** We did look at why and we summarized it. It's primarily a function of timing, the timing of the reviews and the availability of information related to the reviews.

So those were our conclusions around why there were significant differences.

**MS. E. BEST:** Okay. And do you know if the UARB uses this exact same process to review everything that goes before it?

**MR. BROCKWAY:** I don't.

**MS. E. BEST:** Okay. Does it make any sense to you that the process might depend on the subject matter of the review and the surrounding circumstances?

**MR. BROCKWAY:** That could be the case.

**MS. E. BEST:** Okay. And the UARB's review of the Maritime Link versus the PUB's review of the Muskrat Falls generation facility, the Labrador-Island Link and comparing that to the Isolated Island Option, that's different subject matter, isn't it?

**MR. BROCKWAY:** It is. It is.

**MS. E. BEST:** So isn't this a little bit like comparing apples to oranges here? Comparing – if the process might depend on the subject matter and we've got different subject matters, then does that make this comparison meaningful?

**MR. BROCKWAY:** I think it does. I think it's a meaningful comparison.

You're quite right, they are not the same. The PUB's reference question was as a result of the government directing the PUB to review the reference question, as opposed to the UARB process, which was pursuant to an application. So you're quite right, they're different processes, but I think the comparison is relevant just because it demonstrates the availability of the information and the timing of the information that was presented and the fact that the regulatory body in Nova Scotia was able to make a definitive conclusion to what it was asked to do, as opposed to the PUB being unable to make a definitive conclusion.

**MS. E. BEST:** Okay.

And with respect to the circumstances surrounding these reviews, did you look into, I

mean, is it your impression the Emera and Nalcor, for example, are equivalent entities in terms of, I would suggest that Emera's a publicly-traded energy utility company and Nalcor is a Crown corporation, would you think that that might have any impact on the process that was selected?

**MR. BROCKWAY:** I don't know. I personally wouldn't think so.

**MS. E. BEST:** Thank you. Those are my questions.

**THE COMMISSIONER:** All right.

Former Provincial Government Officials 03-15?

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

**THE COMMISSIONER:** Thank you.

Charles Bown and Julia Mullaley?

**MR. FITZGERALD:** No questions.

**THE COMMISSIONER:** Robert Thompson?

**MR. COFFEY:** No questions.

**THE COMMISSIONER:** Todd Stanley and Terry Paddon?

**MS. VAN DRIEL:** (Inaudible.)

**THE COMMISSIONER:** Thank you.

Consumer Advocate?

**MR. PEDDIGREW:** Good afternoon, Mr. Brockway.

**MR. BROCKWAY:** Good afternoon.

**MR. PEDDIGREW:** My name is Christopher Peddigrew, I'm representing the Consumer Advocate. I don't have a lot of questions for you, just a few.

There's been some discussion thus far during the Inquiry about the rate of return that can be charged back to ratepayers in the form of rates. Some witnesses have indicated that by adjusting

the rate of return, I guess, the burden can be eased on the ratepayers.

From your review of the various agreements between Nalcor and Emera and their subsidiary and affiliated entities, what impact or input, sorry, would – could Emera have on the setting of that rate of return? Is that something that you looked at?

**MR. BROCKWAY:** Not in detail, but it is outlined – and I'm not sure what you mean by rate of return, but there are provisions in the agreement that basically state that Emera will be entitled to the same rate of return as would be permitted for other utilities under PUB jurisdiction.

**MR. PEDDIGREW:** Right. And in terms of, I guess, how much that rate of return is and how that's determined by Nalcor, do Nalcor need to discuss and agree on that with Emera or is that a Nalcor-only decision?

**MR. BROCKWAY:** I really don't know.

**MR. PEDDIGREW:** That wasn't something that you (inaudible) –

**MR. BROCKWAY:** No, that wasn't part of this; that's a contract review.

**MR. PEDDIGREW:** Okay.

On page 8 of your report, it's down in lines 16 and 17.

So the comment there where it says: "NSPI may reject Nalcor's solicitation in which case Nalcor may then sell that energy to another third party." So, I guess, the type of circumstance that could arise whereby NSPI would not – or would reject Nalcor's solicitation, is that price? Would that be sort of the scenario you were thinking of? If, I guess, the price being charged by Nalcor's higher, Nova Scotia Power may look elsewhere?

**MR. BROCKWAY:** Potentially, yes.

**MR. PEDDIGREW:** Okay, and so in that sort of scenario, if Nova Scotia Power were looking elsewhere, able to get cheaper power somewhere else other than from Nalcor, would it be fair to say then that Nalcor might have a hard time

selling that power to somebody else – to say the New England States or –

**MR. BROCKWAY:** No, I mean, Nalcor has full discretion as to what they charge any customer.

**MR. PEDDIGREW:** Right.

**MR. BROCKWAY:** The provisions of the EAA put some limitations as to the maximum price that they can put in their bid. But, you know, Nalcor has full discretion to charge any customer whatever they're able to get.

**MR. PEDDIGREW:** Right. But if Nova Scotia Power weren't interested because of price and could source it elsewhere for a lesser price, Nalcor might have the same issue – if cheaper power is available, essentially, is what I'm saying.

**MR. BROCKWAY:** Yeah. I mean if Nova Scotia Power doesn't want the power, then Nalcor can sell it to anybody at any price.

**MR. PEDDIGREW:** Right. But at a lesser price, most likely, if Nova Scotia Power doesn't want the price Nalcor is seeking?

**MR. BROCKWAY:** Potentially.

**MR. PEDDIGREW:** At a couple of points in your report there is some reference to transmission cost and what transmission costs, you know, may be applicable, but they can't be factored in, in terms of the price – the solicitation price, I think. Is that correct? Am I ...?

**MR. BROCKWAY:** Under the Energy Access Agreement?

**MR. PEDDIGREW:** Yes.

**MR. BROCKWAY:** Yes.

**MR. PEDDIGREW:** Okay.

Was there any analysis done about what – if Nalcor had to bring in power from, say, New England or Main, somewhere like that, in order to satisfy its obligations to Emera, was there any

indication about what that cost would be, what those transmission costs would be?

**MR. BROCKWAY:** That wasn't analyzed. Because part of the feedback that Nalcor gave us is they consider that probability to be very low.

**MR. PEDDIGREW:** That they would have to do that.

**MR. BROCKWAY:** That they would ever have to do that.

**MR. PEDDIGREW:** Right.

In your analysis, was there any indication that the issue of water management was considered, the availability of water in order to meet that projected 4.9 terawatt hours?

**MR. BROCKWAY:** No.

**MR. PEDDIGREW:** So you didn't see anything there about any concerns about perhaps the availability of water not being there to meet that 4.9 terawatt hour?

**MR. BROCKWAY:** No.

**MR. PEDDIGREW:** I believe the answer is yes to this question, but I'm not sure, I've just – I was looking for it then before I came up here. But the concept of inflation, has that been built into these agreements between Emera and Nalcor over the course of the project?

**MR. BROCKWAY:** Between Emera and Nalcor?

**MR. PEDDIGREW:** Yes, in terms of what price Nova Scotia – or Emera will pay for the power.

**MR. BROCKWAY:** Not that I'm aware of.

**MR. PEDDIGREW:** As part of your analysis – or just to back up for a second, so Emera contributed approximately 1.6 billion towards the – or for the cost of the Maritime Link part of the project. In exchange have a – I guess, a secure source of power for 35 years.

Was there any analysis done about what the price per kilowatt hour would be for customers

in Nova Scotia? What the resulting price that they would pay per kilowatt hour based on that – the deal that they did with – Emera did with Nalcor?

**MR. BROCKWAY:** Not that I would've reviewed as part of this process.

**MR. PEDDIGREW:** Mr. Brockway, if the Public Utilities Board in Newfoundland set the equity – or sorry, the equity rate of 40 per cent instead of the 45 per cent that it's currently at right now, do you know if that sort of decision would be binding on Emera? Or would – right now, they're allowed to have equity up to 45 per cent.

**MR. BROCKWAY:** If the PUB were to change –

**MR. PEDDIGREW:** Right.

**MR. BROCKWAY:** – what's allowed by Public Utilities in Newfoundland then I believe Emera would be bound by that.

**MR. PEDDIGREW:** Okay.

Just following up on one question that Ms. Best asked you a moment ago about apples to oranges, in terms of the Maritime Link aspect of the project versus the component that Nalcor was responsible for, is it fair to say that the Maritime Link aspect was much less costly than the parts of the project Nalcor was responsible for? Is that – would you agree with that?

**MR. BROCKWAY:** The cost of the regulatory –

**MR. PEDDIGREW:** Yes.

**MR. BROCKWAY:** – review?

**MR. PEDDIGREW:** No, the cost of the project, 1.6 billion versus –

**MR. BROCKWAY:** Yes.

**MR. PEDDIGREW:** – well, what's now about 12. Would you agree, as well, that the Maritime Link component would be less complicated – a less complicated project than the project

bringing power from Labrador down to the Island?

**MR. BROCKWAY:** I don't know. I don't know any of the technical aspects of the project. I'm not really able to answer.

**MR. PEDDIGREW:** Okay. Fair enough.

Those are all my questions. Thank you.

**MR. BROCKWAY:** Okay.

**THE COMMISSIONER:** All right, Emera Inc.?

**MR. NOEL:** We have no questions, Commissioner.

**THE COMMISSIONER:** Thank you.

Former – I think they're here. And I think that's it.

All right, Mr. Brockway, thank you very much. You can – oh, wait, was there redirect? I'm sorry, Mr. Learmonth.

**MR. LEARMONTH:** No redirect.

**THE COMMISSIONER:** Right, thank you.

All right. Thank you, Mr. Brockway.

As I understand it, we're finishing here anyway; it's 4:30 actually. I didn't realize it was that late. So we'll start again tomorrow morning with you to deal with the FLG and other things at 9:30.

**CLERK:** All rise.