COMMISSION OF INQUIRY
RESPECTING THE MUSKRAT FALLS PROJECT

Transcript | Phase 1	Volume 34

Commissioner: Honourable Justice Richard LeBlanc

Wednesday	7 November 2018

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.

Todd Stanley and Terry Paddon?

MS. VAN DRIEL: Good morning, Mr. Marshall.

MR. T. MARSHALL: Good morning.

MS. VAN DRIEL: My name is Gerlinde van Driel and I represent Todd Stanley and Terry Paddon.

MR. T. MARSHALL: Yeah.

MS. VAN DRIEL: Just a couple of questions. I won't be very long.

Am I correct in understanding that while you were minister of Finance – so that was from sometime in 2009 to January 2013 – your office and Terry Paddon's office were right next to each other?

MR. T. MARSHALL: That's correct.

MS. VAN DRIEL: Yeah. And you talked a lot and Terry talked a lot to you about the equity that the province had to come up with.

MR. T. MARSHALL: Yes.

MS. VAN DRIEL: And that was a very important issue for you.

MR. T. MARSHALL: Very much.

MS. VAN DRIEL: It was almost on a daily basis that you spoke to each other about Muskrat Falls and the money required from the province.

MR. T. MARSHALL: That's correct.

MS. VAN DRIEL: And in particular as well, it was important for you that you knew what the estimate of the project was going to be.

MR. T. MARSHALL: Yes.

MS. VAN DRIEL: Because – I think as you said yesterday – it was – if there were overruns – and I think you said you couldn't look into the future – and all else failed, the province would have to come up with the money.

MR. T. MARSHALL: That is correct.

MS. VAN DRIEL: Yeah. And that was very important.

So I was struck by a term you used yesterday, and I wanted to just ask you something about it. You wanted to know – you wanted to have good estimates of the project, and you wanted to know the risks.

MR. T. MARSHALL: Well, I was looking to know the total amount that would be required to cover the estimate and the risk, you know, the total estimate.

MS. VAN DRIEL: Yeah. And I think the concept of risks and its various facets came up regularly. You asked about risks.

MR. T. MARSHALL: We talked about risks. I also talked about risks a lot to Natural Resources and Nalcor.

MS. VAN DRIEL: Correct.

MR. T. MARSHALL: Mm-hmm.

MS. VAN DRIEL: And I think I made a note of that, that often – I think you said yesterday – often Ed Martin would tell you while you were there how to de-risk the project. How to de-risk the situation. Is that correct?

MR. T. MARSHALL: Well, it was mainly we'd talk about risks, things that would come up in, you know, in the media and – or people might, you know, comment. And they would come in we'd talk about the risk and they would say what they're doing to manage it.

MS. VAN DRIEL: Did they use the term de-risk a lot?

MR. T. MARSHALL: Well, de-risk or manage the risk. You know, if you have risks you either accept them, they're going to happen, so you put more money in the estimate. Or you try to avoid them by maybe using a different technology or a different procedure. And the others you try to mitigate and manage.

MS. VAN DRIEL: What's your understanding that by the time DG3 would roll around, or even sanction, that the project would be essentially de-risked, if that's a term that I can use.

MR. T. MARSHALL: I think that Nalcor and their advisors, I think they got the best people they could to do that analysis. I mean, I couldn't tell them how to – you know, that's not my area of expertise –

MS. VAN DRIEL: Right.

MR. T. MARSHALL: – and I'm satisfied that they hired the people to do it and they hired external experts to help them do it; top people. And, you know, I'm satisfied they did a complete review and that the number that I was ultimately given in the end, which was 6.2 plus another 1.2 for financing, 7.4, I was satisfied that that was a good number.

But I still recognized, no one knows what the future is going to bring and there could be risks. Some of them positive, some of the things could be like the financing that came in under and others could have gone over.

MS. VAN DRIEL: Right.

MR. T. MARSHALL: But I'm satisfied that they looked at them and they did their analysis and came with the – with their best – with the best number they could come up with.

MS. VAN DRIEL: Okay. Thank you.

Then my colleague, Mr. Budden, spent a bit of time with you yesterday on basically putting to you that he felt that the Department of Finance had not executed its responsibility in terms of governmental financial controls.

MR. T. MARSHALL: Mm-hmm.

MS. VAN DRIEL: And I believe that your answer was that, yes, you hadn't hired independent cold eyes or independent reviewers of the costing but that Department of Natural Resources had. Is that correct? Did I understand –

MR. T. MARSHALL: Well –

MS. VAN DRIEL: – you correctly?

MR. T. MARSHALL: – Nalcor had.

MS. VAN DRIEL: Or Nalcor had.

MR. T. MARSHALL: Yes.

MS. VAN DRIEL: And then, of course, government, at some point, hired MHI, Manitoba Hydro International?

MR. T. MARSHALL: We did for the DG3 numbers, yes.

MS. VAN DRIEL: Right –

MR. T. MARSHALL: Because –

MS. VAN DRIEL: – for the DG3 numbers.

MR. T. MARSHALL: That's correct.

MS. VAN DRIEL: Yeah.

MR. T. MARSHALL: That's correct.

MS. VAN DRIEL: So my question simply to you is: Do you feel that you, as minister, or that your Department of Finance in any way absconded its responsibilities?

MR. T. MARSHALL: No. The officials in the Department of Finance are, you know, some of the finest – some of the finest public servants in the country. They were very thorough, they considered the risks. They – I have total confidence in Mr. Paddon and the team he had with him.

MS. VAN DRIEL: Right.

All my questions, thank you so much.

MR. T. MARSHALL: Thank you.

THE COMMISSIONER: All right, Former Nalcor Board Members?

MS. G. BEST: No questions. Thank you.

THE COMMISSIONER: All right, Consumer Advocate?

MR. HOGAN: Mr. Marshall, John Hogan for the counsel for the Consumer Advocate.

MR. T. MARSHALL: Good morning, John.

MR. HOGAN: Good morning.

I don't want to ask too many questions about the cost and the analysis, but your evidence was certainly that you wanted to know the number – I think that's what you say in your transcript – in terms of how much the province would have to contribute in terms of the equity.

MR. T. MARSHALL: Right.

MR. HOGAN: And we talked about contingent equity as well.

MR. T. MARSHALL: Yes.

MR. HOGAN: So I know I don't – I think the evidence was no analysis was done on, you know, the potential exposure in terms of overruns. But how much was too much, is my question.

MR. T. MARSHALL: Too much would – I mean the total cost of the project was always something that the Finance Department would be – would take under consideration. But the analysis that was done was done which one would give the lower – which one would be the lower cost. The lower cost would have been the one.

MR. HOGAN: The base –

MR. T. MARSHALL: That would –

MR. HOGAN: The base numbers, right?

MR. T. MARSHALL: That was the key number.

MR. HOGAN: That would be the lowest base number.

MR. T. MARSHALL: No, that would have been everything.

MR. HOGAN: Okay so – I mean I don't think analysis was done on what the potential exposure was in terms of overruns. There was always a risk of overruns for any project.

MR. T. MARSHALL: That's right.

MR. HOGAN: I mean, Mr. Young, in his emails – and I know, you know, he didn't participate in the decision-making –

MR. T. MARSHALL: Mr. Young?

MR. HOGAN: Vic Young, I think it was? That was that email yesterday?

MR. T. MARSHALL: Okay.

MR. HOGAN: I think he suggested a 30 per cent overrun. I mean what – was an analysis done by you or anyone in your department to determine what the maximum exposure would be in terms of overruns? And, if so, could the province afford it?

MR. T. MARSHALL: The analysis would be if it turned out that there was a number that wasn't the least-cost option, that would be – that would certainly be the number that would have (inaudible).

MR. HOGAN: Okay. So, again, that just goes to looking at the base cost as opposed to potential –

MR. T. MARSHALL: No, I think it looks at everything. Because as part of the estimate, after the base estimate was done they'd do this risk analysis and they'd look at the different risks and they increase the estimate by a number, a contingency number, which they think will cover the total cost, but that's all cost.

MR. HOGAN: That's all cost.

MR. T. MARSHALL: All costs –

MR. HOGAN: So whatever number –

MR. T. MARSHALL: – that they think.

MR. HOGAN: So that 2.4 billion you expected to borrow, that was what you thought the maximum exposure would be –

MR. T. MARSHALL: (Inaudible.)

MR. HOGAN: – because the – because you're saying that the number would have included all costs.

MR. T. MARSHALL: Yes.

MR. HOGAN: Okay.

MR. T. MARSHALL: The – no. That was the base equity.

MR. HOGAN: Right.

MR. T. MARSHALL: That would have been our initial contribution.

MR. HOGAN: Right.

MR. T. MARSHALL: Which would have also covered their estimates of what future – what they thought future overruns might be.

MR. HOGAN: There shouldn't be any more borrowing on top of the 2.4 from – at that point in time is what you thought.

MR. T. MARSHALL: We certainly hoped not, but we're realistic, we know what the world is like.

MR. HOGAN: But you didn't know what that – you never put your mind to what that number could be?

MR. T. MARSHALL: Well, they had done that and they had given me their estimate. And –

MR. HOGAN: Well, what was that number then? Because I haven't seen it, I haven't heard that answer yet.

MR. T. MARSHALL: Well, it was a number built in to the total which, to me, was 7.4, right? And I think there was a 15 per cent contingency in there as well, plus an escalation packet.

MR. HOGAN: Okay.

Derrick Sturge and Terry Paddon gave evidence essentially saying that – and this was a word used by – I think by Mr. Paddon, you know, it was a blank cheque.

MR. T. MARSHALL: Mmm.

MR. HOGAN: And Mr. Sturge said, you know, when they requested money from the government for the cost to continue with the project, essentially what was the government going to do? They had to pay. So it was – because the project had to be finished, you were committed to it.

So my question is, you know: Was the blank-cheque method a good way to finance a project?

MR. T. MARSHALL: But when you do a project, like, you – if you build a house or you build a – maybe you build a small apartment building next door, the bank – you know, you get your experts, your engineers and your architects and their team of people to provide you, amongst other things, with the cost estimates.

And you might ask them to get somebody to do a double-check and they may hire another company to do a double-check. And then you take that information to the bank and the bank will say they're giving you a proportion, and they'll say but you have to come up with the rest yourself. That's your equity. And they'll say to you: To finish it you're going to have to come – any overruns, that's on you.

So we knew that was a possibility but we had had, you know, people like SNC-Lavalin that did the base estimate, with the team and – remember, the project team was a pretty large group of people: engineers, accountants, lawyers and whatnot. And then they hired these experts, this – Westney, to do the risk analysis.

Now, I did not go and do the risk analysis because that's not my role. My role –

MR. HOGAN: Well, let's look at it this way, did you – now that we know the cost –

MR. T. MARSHALL: Right.

MR. HOGAN: – did you anticipate that number being that high?

MR. T. MARSHALL: I thought to myself: What's – you know, give me a – take an exaggerated number and could we handle it in terms of financing it?

MR. HOGAN: So what was the exaggerated number? That's what I'm trying to get at.

MR. T. MARSHALL: I think I said to Terry once, 50 per cent.

MR. HOGAN: Fifty per cent.

MR. T. MARSHALL: Yes.

MR. HOGAN: Worst-case scenario kind of thing?

MR. T. MARSHALL: Well …

MR. HOGAN: Okay. Fair enough.

MR. T. MARSHALL: Okay.

And we determined that, yes, we could handle it.

MR. HOGAN: Okay.

MR. T. MARSHALL: If it was the lowest cost for the people of the province (inaudible).

MR. HOGAN: No, I understand that.

MR. T. MARSHALL: Yeah.

MR. HOGAN: Yeah.

You were asked very early yesterday, I think, it was referred to the expressions of interest. So this is predating any decision to go ahead with the Lower Churchill.

MR. T. MARSHALL: Yes.

MR. HOGAN: Do you recall the expressions of interest?

MR. T. MARSHALL: I do. I was in the Justice Department at the time. It was relatively early in our mandate.

MR. HOGAN: Yeah, it was. So what do you recall about that process and what role did you play, if any?

MR. T. MARSHALL: None. I was just advised of the results.

MR. HOGAN: Just advised of the results.

MR. T. MARSHALL: Right.

MR. HOGAN: Okay.

So, one of the results was a proposal from SNC, Hydro-Québec and Ontario. So you were advised of that result, that proposal?

MR. T. MARSHALL: I knew there had been a proposal from Ontario and Quebec and SNC.

MR. HOGAN: Yeah, which obviously wasn't chosen. Do you know why it wasn't good enough and what was wrong with –

MR. T. MARSHALL: No.

MR. HOGAN: – that proposal?

MR. T. MARSHALL: No, I was in the Department of Justice at that time. I –

MR. HOGAN: Okay.

MR. T. MARSHALL: I think there was press release went out and I think I made an inquiry but, you know, I – it wasn't my –

MR. HOGAN: Decision?

MR. T. MARSHALL: – my file and –

MR. HOGAN: Right.

MR. T. MARSHALL: – I was involved with other things.

MR. HOGAN: So it wasn't a Cabinet decision, it was a Natural Resources decision?

MR. T. MARSHALL: I can't recall. It may have been made at the premier's office level, right?

MR. HOGAN: Sure.

Do you know if there was any discussions around whether why it was better to go alone and risk public funds, as opposed to go with that proposal?

MR. T. MARSHALL: I don't recall that. I just recall the decision that we were going it alone.

MR. HOGAN: Okay.

I'm just going to go back to that information note that suggested – or the conclusion was, if you recall – we can bring it up if you want – within that note it suggested to wait one or two years to do the independent review.

MR. T. MARSHALL: Right.

MR. HOGAN: You recall that from yesterday?

MR. T. MARSHALL: I do.

MR. HOGAN: And you recall your evidence is that was – there wasn't enough time to wait one or two years because power was needed.

MR. T. MARSHALL: No, the – this was in essence – this didn't come to me through the normal source. Normally, that would come to me through Mr. Paddon. And this was some officials, I think, in the Economics or Statistics division who simply wrote this note to let me have their views. Because I remember being – I said: Well, what do I do with this, you know? What's the next step with this?

MR. HOGAN: This is January 2012; let's just put it in perspective.

MR. T. MARSHALL: Yeah – January 2012?

MR. HOGAN: I think, yes. Do you want to bring up 00922?

MR. T. MARSHALL: Okay, yes, I was in Finance. I'm sorry; I was thinking it was (inaudible).

MR. HOGAN: For the record it's Exhibit 00922.

MR. T. MARSHALL: 00922? Okay.

MR. HOGAN: If you want to have a look at it.

THE COMMISSIONER: Tab 21.

MR. T. MARSHALL: Yeah, I remember.

MR. HOGAN: Okay.

MR. T. MARSHALL: I remember and –

MR. HOGAN: So –

MR. T. MARSHALL: – I think it was –

MR. HOGAN: Yeah, go ahead.

MR. T. MARSHALL: It was they gave me a summary of – just can you – yeah – no?

MR. HOGAN: Well, I'll just look at the conclusion I'm interested in, if we can scroll all the ways down, please?

MR. T. MARSHALL: Is that the – oh yeah, yes.

The – looked at the – a number of things that Wade Locke had done, his report and Dr. Vardy and Dr. Feehan. I referred to his – their reports and then I made a recommendation, a conclusion. And, again, they didn't come in to see me. I would get – you know, we'd get letters from people who have ideas and say why don't you do this, why don't you to do that, or why don't you try this.

MR. HOGAN: I understand, I'm not –

MR. T. MARSHALL: And, basically, they – basically, they were saying to wait a couple of years –

MR. HOGAN: Right.

MR. T. MARSHALL: – and – but they said the link was crucial, there had to be a link with Labrador. They felt that was crucial, which the Isolated Option wouldn't have provided. And they, obviously, they mentioned the cost, you know, the cost.

MR. HOGAN: So, I mean, your – I want to focus on that: "… government should delay a decision on Muskrat Falls for 1-2 years to allow a full assessment of alternatives …."

Now, yesterday you said the reason he couldn't wait one or two years was because we needed the power – this is 2012 now.

MR. T. MARSHALL: Based on what we knew at the time –

MR. HOGAN: Right.

MR. T. MARSHALL: – we were going to need power, and we're going to have time, and what ever you do – I mean, first of all, this had been looked at, by us for two years, but it had also – I think the first recommendation to do Muskrat Falls came in 19 – in the '80s, that's when it was first recommended. So this has been looked at by, you know, Newfoundland and Labrador Hydro for many years.

MR. HOGAN: So my question is: Where did you get that information – let's focus on the questions –

MR. T. MARSHALL: Okay.

MR. HOGAN: – that the power was needed within one or two years?

MR. T. MARSHALL: That came from Nalcor – that came from Hydro.

MR. HOGAN: That came – well, Nalcor.

MR. T. MARSHALL: They came with the load forecast.

MR. HOGAN: Load forecast from Nalcor.

MR. T. MARSHALL: Right.

MR. HOGAN: Okay.

So my question is – and we haven't looked at this yet, section 6 of the Electrical Power Control Act. I'm just going to read it out, the heading on it is: Planning of future power supply, which is what we are talking about. And it says: "The public utilities board has the authority" –

MR. T. MARSHALL: Can you run that – can you put that up there?

MR. HOGAN: I don't have it to put up.

THE COMMISSIONER: I think we do have that as –

MR. HOGAN: Oh, sorry.

THE COMMISSIONER: – an exhibit.

MR. T. MARSHALL: Go ahead, Mr. Hogan.

MR. HOGAN: Electrical Power Control Act.

THE COMMISSIONER: So I'll just see if we can – if I can find it here quickly. I may be wrong on that.

Yeah, I don't think we do have it as an exhibit. So, maybe you can just read it for Mr. Marshall.

MR. HOGAN: I can read it, sure.

THE COMMISSIONER: Sorry, Mr. Marshall, we don't have that as an exhibit right now.

MR. HOGAN: So, the PUB "has the authority and responsibility to ensure that adequate planning occurs for the future production, transmission and distribution of power in the province." So, basically the PUB is in charge of figuring out power needs.

So, were you aware of this section of the Electrical Power Control Act and the fact that the PUB is charged with ensuring adequate power?

MR. T. MARSHALL: On applications that come before it.

MR. HOGAN: Well, I don't see that there.

MR. T. MARSHALL: Well, if it wasn't directed to them, I don't know how they would do it. But it's the – with all due respect – it's the government that sets energy policy – electrical policy – in the province.

MR. HOGAN: So your position would be Nalcor is the one that decides demand – determines demand. Not the PUB.

MR. T. MARSHALL: Well, Nalcor made an analysis that there was a need for the demand.

MR. HOGAN: I understand that.

MR. T. MARSHALL: And then the next thing is we have to come up with a way to meet that need.

MR. HOGAN: My question is – is it Nalcor's – is it your understanding that it's Nalcor's responsibility to determine the demand of the province or is it the PUB's?

MR. T. MARSHALL: Well. I would – I got it from Nalcor.

MR. HOGAN: You got it from Nalcor.

MR. T. MARSHALL: Yes.

MR. HOGAN: Did you – at the time that demand was an issue –

MR. T. MARSHALL: Well, let's say the government got it from Nalcor. Let's put it that way.

MR. HOGAN: That's fine. At the time the demand crunch was happening, did you meet with anyone at the PUB or did the PUB contact you to say there was an issue with demand?

MR. T. MARSHALL: No.

MR. HOGAN: No.

Sorry, I keep going back to your evidence yesterday, but that's what I want to ask you about.

MR. T. MARSHALL: Sure.

MR. HOGAN: You mentioned that, you know, we – I think you had some comfort level in the Lower Churchill because we had been doing hydro projects for a hundred years. It gave you some comfort.

MR. T. MARSHALL: Yes.

MR. HOGAN: And then later in your evidence you mentioned three specific projects – the Upper Churchill, Bay d'Espoir and Twin Falls?

MR. T. MARSHALL: Yes.

MR. HOGAN: So what was the – was that your point as well, that these projects had been built here so it gave you some comfort in the Lower Churchill?

MR. T. MARSHALL: Yes.

MR. HOGAN: But Nalcor hadn't built any of these projects, had they?

MR. T. MARSHALL: Well, Hydro had. And before Hydro it was the Power Commission. So they were just a continuation of what had existed in the past.

MR. HOGAN: I don't think that – Nalcor or Hydro didn't build Upper Churchill though, did it?

MR. T. MARSHALL: No.

MR. HOGAN: Did it build Bay d'Espoir?

MR. T. MARSHALL: Well, we got the – Hydro built Bay d'Espoir. The Power Commission built Bay d'Espoir.

MR. HOGAN: And Twin Falls.

MR. T. MARSHALL: Twin Falls was built by Brinco and the two mining companies. But it was done in – my point was – it was done in Labrador. And a lot of them that were done in Labrador –

MR. HOGAN: Yeah.

MR. T. MARSHALL: – because there was concern about the north. There was concern about the weather.

MR. HOGAN: In that – so there was experience but I mean, you know, no one at Nalcor, at the time that Muskrat Falls was commissioned or sanctioned, had built any hydro projects.

MR. T. MARSHALL: But they hired that expertise.

MR. HOGAN: They hired it.

MR. T. MARSHALL: Yes. SNC-Lavalin and other (inaudible) –

MR. HOGAN: I don't understand it, because you know, you're talking Labrador but the SNC aren't Labrador hydro experts, are they?

MR. T. MARSHALL: But they've done a lot of hydro projects in northern Canada.

MR. HOGAN: But the relevance of Upper Churchill, Bay d'Espoir and Twin Falls is – doesn't matter, does it? To SNC.

MR. T. MARSHALL: Relevance to Churchill – well, no.

MR. HOGAN: When you talked about the experience that we have in building in hydro – comfort levels here –

MR. T. MARSHALL: Right.

MR. HOGAN: – but the fact is that we didn't have that expertise, did we, at Nalcor?

MR. T. MARSHALL: They hired it.

MR. HOGAN: They hired it the experts.

MR. T. MARSHALL: They didn't have it – and that's what we do in government. If we –

MR. HOGAN: Yeah.

MR. T. MARSHALL: – don't have it, we –

MR. HOGAN: Yeah.

MR. T. MARSHALL: – go outside and hire it. We do it for many things, including lawyers.

MR. HOGAN: You haven't asked – been asked about water management yet. So are you aware of this issue – currently before the Court of Appeal, so I'll temper my questions accordingly.

MR. T. MARSHALL: Yeah, I was aware of legislation that was brought forward some number of years ago dealing with the issue of when you have two power plants on the same river; and to ensure that the public interest could be met – to ensure that you could get the most production out of that river, you required – there was – the legislation would require the owners of the plants to get together and do up a water management agreement.

And if they couldn't do it, you could go to the PUB and the PUB would set one.

MR. HOGAN: Okay. Just –

MR. T. MARSHALL: So I remember that legislation.

MR. HOGAN: And you remember that the PUB did issue an order – a water management agreement?

MR. T. MARSHALL: Yes.

MR. HOGAN: But you're aware, for the record, that Hydro-Québec didn't sign onto that. Are you aware of that?

MR. T. MARSHALL: I'm aware – I think the board of directors of CF(L)Co, who represent Hydro-Québec –

MR. HOGAN: Right.

MR. T. MARSHALL: – did not approve it.

MR. HOGAN: Not approve.

MR. T. MARSHALL: Yeah.

MR. HOGAN: Okay.

And I'll ask this question, then – I mean, obviously, the decision was made to proceed with sanction –

MR. T. MARSHALL: Yes.

MR. HOGAN: – so you were satisfied in terms of risk level regarding the water management issue that – that wasn't enough of a risk to not proceed, if I can put it that way. You were satisfied that risk had been managed.

MR. T. MARSHALL: There was a risk-management agreement – or a water management agreement – put in effect, yes.

MR. HOGAN: And that was satisfactory to you in terms of any risk that the water management issue would present.

MR. T. MARSHALL: Yeah, so the – you know, the department at the time – I wasn't in the department at the time, but they recommended it. I'm sure they did the proper analysis and that would mitigate the risk.

MR. HOGAN: Okay. Thanks.

If we could just bring up P-00736, please?

This won't be in your binder. You were asked by Mr. Learmonth yesterday about a $600 million expenditure at Holyrood for environmental purposes. Do you recall him asking you about that?

MR. T. MARSHALL: Yes.

MR. HOGAN: And then I think Mr. Simmons might have brought this issue up as well – counsel for Nalcor.

So I just wanna refer to this email, which is Al Snyder to Paul Wilson; these are two of the MHI individuals who testified at the Inquiry. You can have a chance to read it there, if you want, but certainly 1(b) says: "The proposed installation of … scrubbers and NOx burners at a cost of approximately $600 million is not required from an environmental perspective and this expenditure will be detrimental to ratepayers."

So do you have any knowledge about that particular sentence?

MR. T. MARSHALL: No, I've never seen this before.

MR. HOGAN: Okay.

But I'll just put this to you then: if it's not required, you know, that means the scrubbers are superfluous, and therefore shouldn't go in the cost of the Isolated Island Option. Do you agree?

MR. T. MARSHALL: Yes, if there's –

MR. HOGAN: You agree. Okay.

MR. T. MARSHALL: Yes.

Okay. They don't do anything to resolve the greenhouse gas issue. Yeah, I remember that. There was two. There was another amount as well. I believe there were two amounts. One amount, I think, where spending was required did not deal with the greenhouse gas issues. And there was another amount that would.

MR. HOGAN: Thank you. Just moving forward in time to the debate in the House of Assembly.

MR. T. MARSHALL: Yes.

MR. HOGAN: Were you the House Leader at that point in time, do you know?

MR. T. MARSHALL: No.

MR. HOGAN: No? Do you know who was?

MR. T. MARSHALL: What was the date?

MR. HOGAN: Good question.

MR. T. MARSHALL: Good question. And who was the house leader? Good question.

MR. HOGAN: I was hoping you would know the date.

MR. T. MARSHALL: No. I –

MR. HOGAN: Anyways, you recall –

MR. T. MARSHALL: – I don't remember who it was.

MR. HOGAN: You recall the debate?

MR. T. MARSHALL: The debate – which one?

MR. HOGAN: The Muskrat Falls debate, the special debate.

MR. T. MARSHALL: The sanction debate?

MR. HOGAN: Yes.

MR. T. MARSHALL: Yes.

MR. HOGAN: I'm just wondering if you recall if any Opposition Members at that time had requested that Nalcor officials come before the House to testify or give evidence.

MR. T. MARSHALL: I don't specifically recall, but it's quite possible that that's – you know, there's a lot of things that come up in debate and that could have been one of them.

MR. HOGAN: Okay.

MR. T. MARSHALL: Yeah.

MR. HOGAN: And they didn't as far as I know. There was no Nalcor officials gave evidence during that debate.

MR. T. MARSHALL: I see.

MR. HOGAN: Is that true?

MR. T. MARSHALL: I don't recall. I certainly – no.

MR. HOGAN: You don't –

MR. T. MARSHALL: I just – I think I would remember if they had come in to give evidence.

MR. HOGAN: Was there any discussion then on the government side that maybe that should be an option? Do you recall?

MR. T. MARSHALL: I don't recall.

MR. HOGAN: Okay. If I could look at please P-00528? Page 13.

Mr. Marshall, in your evidence yesterday, do you recall you said rates had been unstable?

MR. T. MARSHALL: Well, oil prices had been unstable, which would affect the rates.

MR. HOGAN: Now, I just want to look at this provincial electricity rates. So the black line there is Newfoundland, it's from 1970 to 2014. I just would like your comment on that. Because I would submit that that shows stability in terms of electricity rates.

And one of the big things that was presented to the public was that rates were unstable and something needed to be done. So I would suggest that this graph shows the opposite to be true. I'm looking for your comment on that.

MR. T. MARSHALL: Well, you know, the rates in the province are driven by, you know, the cost of providing the service. You know, you use electricity, you pay the cost. Plus a bit more. And in the winter – during the winter when the most – when peak demand is needed for heating, that's when Holyrood is going full tilt. And Holyrood operates using oil. And oil at the time we were making these decisions, oil was rising. And it was volatile. And now there is a rate-stabilization plan in effect, as I understand, and – to deal with this. But that was – and I think they were burning 18,000 barrels a day, going full out for part of the year, the peak time of the year when it's cold. And it was felt they were going higher. The – we had estimates from experts in New York that – PIRA and Wood Mackenzie from London. And we thought that it was going higher. And it would be better if we could get on lower hydro rates than –

MR. HOGAN: So that's fair enough –

MR. T. MARSHALL: – than –

MR. HOGAN: – then the prediction was that oil was going up and rates would go up.

MR. T. MARSHALL: That's right.

MR. HOGAN: But certainly, do you agree that rates from '70 to 2010 when the term sheet was signed, and 2012 to when it was sanctioned are fairly stable?

MR. T. MARSHALL: (Inaudible.)

MR. HOGAN: Historically.

MR. T. MARSHALL: Historically, yes. But rates were going up. While we were in government –

MR. HOGAN: No, I'm not asking if –

MR. T. MARSHALL: – rates continued to go up.

MR. HOGAN: – they were going up, I'm asking historically. Were they stable or unstable?

MR. T. MARSHALL: Well there's blips at times. It goes up at times –

MR. HOGAN: Yeah.

MR. T. MARSHALL: – it goes down and – but there was a time period there from let's say 1990 to 2000 they were stable. Then there's a blip in 2000 and then after that they're stable, then they start to rise and there's a bump and then they're going up again.

MR. HOGAN: I guess stability could be a subjective opinion, but –

MR. T. MARSHALL: Sure.

MR. HOGAN: – it speaks for itself. At sanction, rates were about 11 cents, and now they're about 12 cents. So, you know, we didn't – you just mentioned about predicting the future, and now we're here and rates, I would suggest, are fairly similar.

MR. T. MARSHALL: Yes, looking –

MR. HOGAN: Showing more stability.

MR. T. MARSHALL: Looking backwards, yeah.

MR. HOGAN: Can you comment on that?

MR. T. MARSHALL: Well, we had to make our decision based on the information we had at the time. You're now saying rates haven't gone up as much as we thought.

MR. HOGAN: Yeah.

MR. T. MARSHALL: But rates had gone up. When we were making this decision, rates had gone up and they were projected – this is without Muskrat Falls – but rates had gone up and it was projected that they were gonna go higher. So that by the time Muskrat Falls came on, add additional cost in terms of rates, the rates would still be pretty close to where Muskrat was gonna be. There was gonna be a little bump, and then it was felt – projected –

MR. HOGAN: So there was a prediction they would go up because oil was going up, but now –

MR. T. MARSHALL: And they had been going up.

MR. HOGAN: – it didn't happen.

MR. T. MARSHALL: And they had been going up.

MR. HOGAN: Well they've only gone up a cent –

MR. T. MARSHALL: Well –

MR. HOGAN: – is my point.

MR. T. MARSHALL: – I think if you – I think there was a time when Nalcor should have gone and looked for rate increases. Because remember, the whole concept is that the rates have to reflect the cost of providing the service. And I think there had been a long period of time before Nalcor had gone to the board looking for a rate increase. And that could be a reason.

MR. HOGAN: Does Nalcor go to the PUB to request rate increases?

MR. T. MARSHALL: They do, they do.

MR. HOGAN: Or is it Hydro's responsibility?

MR. T. MARSHALL: Well, Hydro would do it – you know, Hydro's a subsidiary of Nalcor.

MR. HOGAN: Right.

MR. T. MARSHALL: Yeah.

MR. HOGAN: But why would they be going to look for rate increases and why wasn't it done? I'm not following any of that.

MR. T. MARSHALL: They did – well I – I'm –

MR. HOGAN: And when was this should have been done?

MR. T. MARSHALL: Should have been done earlier.

MR. HOGAN: Earlier. 2010? Eight – '98? 2016? What are we talking about?

MR. T. MARSHALL: Well, what I'm saying is that Nalcor did not go – or Hydro did not go to the PUB for a rate increase.

MR. HOGAN: When?

MR. T. MARSHALL: At – for one – for a few of these years, when they normally would have gone. They delayed it.

MR. HOGAN: Okay.

MR. T. MARSHALL: And government agreed with them delaying it.

MR. HOGAN: Again, why is government getting involved in submissions to the PUB?

MR. T. MARSHALL: Because government would – could – government wasn't involved in submission to the – government was involved in providing funds to (inaudible) –

MR. HOGAN: When you say Hydro was in discussions with government about when to go to the PUB to request or not request rate increases –

MR. T. MARSHALL: I don't know if they were in discussions. I know they didn't go. And it was a question for me – why didn't they go? Why didn't they go to seek a rate increase?

MR. HOGAN: And what was the answer?

MR. T. MARSHALL: I don't recall.

MR. HOGAN: So –

MR. T. MARSHALL: But they eventually did go.

MR. HOGAN: Let me just sum up your evidence then. The fact that the rates have gone from 11 cents to 12 cents since sanction to today – your position sounds like they're artificially low because the request wasn't made to increase them.

MR. T. MARSHALL: Well they have – they have gone – they have gone – subsequent – but at the time there was a wonder why is it, you know, why is it this gap where you haven't sought a rate increase?

MR. HOGAN: Okay.

I might have to ask someone else about that. So in terms of predictions and forecasting a lot of evidence has been given, questions have been asked about the fact that the forecasts in this case were 50-year forecasts. You aware of that?

MR. T. MARSHALL: Yes.

MR. HOGAN: And did you ever question the accuracy of these long lengthy forecasts?

MR. T. MARSHALL: I wouldn't know how to do a forecast but –

MR. HOGAN: No.

MR. T. MARSHALL: – you know, you would say, you know, for me as Finance minister – I mean, predicting oil prices a year down the road is difficult, let alone 50 years down the road. So you know that the long-term forecasts like that – you'd have to keep revising that forecast as you went along.

MR. HOGAN: So was there any concern on your part that this was a lengthy forecast though?

MR. T. MARSHALL: Fifty years? Yes.

MR. HOGAN: There was a concern?

MR. T. MARSHALL: Sure.

MR. HOGAN: Okay. Did you ever ask or review Nalcor's other forecasts to see how accurate they've been in the past?

MR. T. MARSHALL: Their electricity rate forecast?

MR. HOGAN: Any forecast – demand forecasts – oil price forecasts.

MR. T. MARSHALL: I looked at a lot of oil price forecasts and it was mainly concerned with the short- to medium-term.

MR. HOGAN: Right.

MR. T. MARSHALL: For budget purpose.

MR. HOGAN: For budget purposes.

MR. T. MARSHALL: Right.

MR. HOGAN: Right. And you never, for budget purposes, forecasted 50 years, did you?

MR. T. MARSHALL: There were long-term forecasts in the department and how it would affect our long-term economic outlet. I mean outlook.

MR. HOGAN: That went into the budget?

MR. T. MARSHALL: Well there'd be economic reports – I don't know – if we forecasted out that long on the budget I don't think we'd –

MR. HOGAN: Would you forecast the revenue on 50-year forecasts for oil?

MR. T. MARSHALL: Would I –

MR. HOGAN: – in the budget was – I mean we do predict.

MR. T. MARSHALL: No. No, not 50 years.

MR. HOGAN: One year, two years, what's the – I mean we just had a revision or a forecast yesterday on oil, so I don't know how it works in government. How often are the –

MR. T. MARSHALL: We're getting forecasts all the time. We're getting forecasts monthly. Forecasts for different outlooks. And – but I can't recall if there's one for 50 years.

MR. HOGAN: Okay, so when you do the budget, what's the length of time you set the price of oil for in – within that budget?

MR. T. MARSHALL: You do the budget for a year –

MR. HOGAN: Is it year?

MR. T. MARSHALL: For that year – right. But you also usually do rough estimates for two or three years.

MR. HOGAN: Two or three years, okay.

We also talked a lot about oversight in the last couple of days – in the last few days – and oversight by various ministries. I think we all know Cabinet members can move around, can shuffle around, you agree?

MR. T. MARSHALL: Yes.

MR. HOGAN: How long does it generally take for a Cabinet minister to be brought up to speed in a new ministry?

MR. T. MARSHALL: I'd say – I think it depends on the department and it depends on the previous experience or education or occupation of the particular person.

MR. HOGAN: Fair enough. I knew that was going to be the answer as I asked the question. So, let's – generally for the Finance and Natural Resources department?

MR. T. MARSHALL: Well, having been in Justice for three years – and I also served on the Treasury Board Committee – so in terms of Finance, by the time I went to Finance I think I was ready. But you still have, you know, a lot to learn. With Natural Resources, when I first went there, I remember somebody said, it usually takes about a year for the minister to get up to speed.

Then – because it was a big department and there were things – you know, like the Forestry and Agrifoods was in that department. It's since been removed to another department. I guess to make it a little smaller. But it was a big department and I was told it would take about a year.

MR. HOGAN: And when you became Premier, I think in January of 2014, did you swear in a new ministry?

MR. T. MARSHALL: Well I had to, but it was the same people with the exception of – I had to appoint a Finance minister to succeed me.

MR. HOGAN: Yeah.

MR. T. MARSHALL: And, there was another, there's another – I can't recall, I think there was one more I had to make for a particular reason. Oh – I was Attorney General at that part – at that point, so I had to get someone to be the Attorney General.

MR. HOGAN: Okay. Now, I'm just going to put to you, there was a lot of shuffling in 2014. You recall 2014?

MR. T. MARSHALL: I do.

MR. HOGAN: We had a lot of premiers in 2014.

MR. T. MARSHALL: We had two, well –

MR. HOGAN: We had (inaudible.)

MR. T. MARSHALL: – we had one for 29 days and you had me for the (inaudible). No, you're right. Then I left in September and then there was a third premier.

MR. HOGAN: So there was Premier Dunderdale, and then there was yourself –

MR. T. MARSHALL: Right.

MR. HOGAN: And then there was Premier Davis?

MR. T. MARSHALL: Right.

MR. HOGAN: And, correct me if I'm wrong, I'm just sort of going by media reports that at one point – you know, Frank Coleman had been the premier-in-waiting or whatever we want to call him –

MR. T. MARSHALL: Yes.

MR. HOGAN: – you had left the premier's office and then had to return when Mr. Coleman –

MR. T. MARSHALL: I hadn't actually left. The party was picking their leader. And that he would be sworn in as premier.

MR. HOGAN: To clean out the – your premier's office on the anticipation that Mr. Coleman was going to move in.

MR. T. MARSHALL: No, I had – I didn't – and because there was a date set for the convention. So that was the day I would've cleaned out. But what happened was that Mr. Coleman – I was in – I remember I was in Toronto at the time for Jim Flaherty's funeral and it was announced that Mr. Coleman – or one of the candidate – one of – the other candidate had withdrawn, which meant that Mr. Coleman would win by acclamation.

So I called him to say that, you know, I would get out as quickly as I could. And he said no, he was gonna take a bit of time; for me to stay there.

MR. HOGAN: And then he –

MR. T. MARSHALL: He –

MR. HOGAN: And then he had to step away from –

MR. T. MARSHALL: That's right. I was supposed to be there four months, I ended up being there eight.

MR. HOGAN: Okay. And then Mr. Davis – you had another leadership.

MR. T. MARSHALL: That's right.

MR. HOGAN: Mr. Davis was successful and became premier.

So my question is and my point is that there was a lot going on and I know politics are in play here. I mean, you're a member – or you were a member of the PC party and so you – members of caucus and Cabinet would've been involved in two leadership contests within a year.

MR. T. MARSHALL: Yes.

MR. HOGAN: And, I'm gonna say, you know, involved with three and a half premiers in a year. And we're talking about oversight. You know, was everybody, within their various ministries, focused on the oversight that was required at that time? Or were there – was there so much, sort of, going on outside the government that they were taken away from some of those duties, potentially?

MR. T. MARSHALL: Well, when we were first elected, there's a lot of – our first meeting, there's a lot of new oversight pieces dealt with (inaudible) –

MR. HOGAN: They're selected in 2003?

MR. T. MARSHALL: No, 2014 –

MR. HOGAN: 2014.

MR. T. MARSHALL: – (inaudible) 2014, right. That's a year – 2014. Yeah.

So at our – at the first Cabinet meeting we brought in four oversight mechanisms. One was to review the ATIPP legislation and we appointed a Committee to do that.

Number two is we wanted more oversight over the construction project, because back in '13 – and we're talking well post-sanction now – but in '13 when I became Resources minister, one of the first things we did was said: Okay, it's now a construction project. That's what I was advised, that this is now gone from the pre-development stage and we are now into an actual construction project. And I said: Well, all right, let me review. What is the oversight in place for the construction project? You know, that there's the budget and there are, you know – the procedures and controls are in place. And they were.

And – but then in '14, the other thing is we put in an additional project Oversight Committee, headed by the (inaudible) and government officials and advised by Ernst & Young, which was one of the firms we recommended when we'd done the request for – when Mr. Skinner and I had requested earlier for independent analysis. And, also, we brought in an Open Government initiative so that government would not wait; like under ATIPP, you wait for people to make an application for information. An Open Government initiative would allow government to be more proactive in getting information out. And we brought in whistle-blower legislation so that employees, if they felt there was something wrong happening –

MR. HOGAN: Did that get passed?

MR. T. MARSHALL: Yes, it did.

MR. HOGAN: Okay.

MR. T. MARSHALL: Yes, it did.

So there was – so with the Oversight Committee, that was another level of oversight over all the other oversight that was in place already, which I had referred to as a plethora of oversight and which we talked about yesterday.

MR. HOGAN: So this was all done in 2014?

MR. T. MARSHALL: This additional Committee, yes, and the things that (inaudible) –

MR. HOGAN: My question was – you know, there was a lot of movement and I'm just concerned – I'm wondering, I'm asking, if at that point in time government, potentially, didn't have its eye on the ball at Nalcor?

MR. T. MARSHALL: No.

MR. HOGAN: Because there's ministries moving around, there's leadership conventions happening, there's second leadership conventions happening. And I know politics is busy and it's exciting and you get wrapped up in it.

MR. T. MARSHALL: Right.

MR. HOGAN: And at the end of the day, all of these people have to get elected again, so they're concerned with, rightly so, who their leader is going to be.

MR. T. MARSHALL: Of course.

MR. HOGAN: So my question is: Where was the focus in 2014 during all this that was going on?

MR. T. MARSHALL: Well, the main focus would've been the premier's office. It would've been Natural Resources, and Mr. Dalley was there. He hadn't changed to – Premier Dunderdale, when – yeah, Premier Dunderdale appointed Minister Dalley as Natural Resources. He was there and he continued there as long as – throughout '14 with me.

Who am I forgetting? Charlene Johnson was the Finance Minister.

No. Government was – there was a government operating, in place, with a budget and doing its job.

MR. HOGAN: You're also all, sort of, coming to the end of your political career, as well.

MR. T. MARSHALL: (Inaudible.)

MR. HOGAN: A lot of those people didn't run again in 2015, did they? Charlene Johnson did not, I don't think.

MR. T. MARSHALL: That's correct.

MR. HOGAN: You did not.

MR. T. MARSHALL: Right.

MR. HOGAN: Yeah.

I just want to go backwards now to that direction note that was signed by yourself and Minister Skinner. You recall that?

MR. T. MARSHALL: Yes.

MR. HOGAN: It's at P-00807.

MR. T. MARSHALL: Yes, I remember.

MR. HOGAN: So this is May 2011, and –

MR. T. MARSHALL: But if you – if you could put it up, just to be sure.

MR. HOGAN: Yes, sure, she'll put it up. Thank you, Madam Clerk.

MR. T. MARSHALL: Go right to the note, please?

MR. HOGAN: Yeah.

THE COMMISSIONER: Also in tab 10 in your book.

MR. HOGAN: Sorry, Commissioner.

MR. T. MARSHALL: Yeah, I remember this.

MR. HOGAN: So your evidence yesterday, and correct me if I'm wrong, you know, paraphrasing you. Obviously, this was your opinion, this was Minister Skinner's opinion, that there should be full, independent review. Correct?

MR. T. MARSHALL: Yes.

MR. HOGAN: I think you said, you know, it would've went up the chain to the premier's office. Is that correct?

MR. T. MARSHALL: Yes, you make a recommendation, your recommendation to Cabinet –

MR. HOGAN: Cabinet.

MR. T. MARSHALL: – and then Cabinet Secretariat would do an analysis and then it would go to the premier and in some cases – in most cases there would be a Cabinet meeting, but in some cases you would ask the premier for direction and the premier might just give that direction.

MR. HOGAN: But could the premier decide, listen, I want to have a Cabinet meeting about it, or decide I don't need to have the Cabinet meeting, here's my decision; I agree or disagree?

MR. T. MARSHALL: On certain things, yes.

MR. HOGAN: I mean, could work any of those ways?

MR. T. MARSHALL: Yeah.

MR. HOGAN: Okay, in this case the premier made a decision?

MR. T. MARSHALL: Well, it was a – looking for direction and –

MR. HOGAN: Well, the direction was –

MR. T. MARSHALL: Actually, I think the decision was – the decision was – and I'm sure Cabinet was involved in this. The decision was that instead of doing it this way we would refer to the PUB. Because the PUB had been exempted by the previous administration and we decided that now we would change the role and allow the PUB to look at it.

MR. HOGAN: Okay.

If we can just go –

MR. T. MARSHALL: In lieu of this.

MR. HOGAN: Pardon me?

MR. T. MARSHALL: In lieu of this recommendation.

MR. HOGAN: Yes. And you got behind the premier and the Cabinet, you and Mr. Skinner I assume? Because you stuck around, you didn't resign and you – despite your difference of opinion –

MR. T. MARSHALL: Oh, no, I was quite content that the PUB was doing –

MR. HOGAN: Okay. Fair enough.

MR. T. MARSHALL: Yeah.

MR. HOGAN: That was going to be my next question (inaudible) –

MR. T. MARSHALL: I mean, when you – just –

MR. HOGAN: Yeah.

MR. T. MARSHALL: When you make a recommendation like this and when it's analyzed, you know, the pros and cons of your recommendation are there and then the alternatives are brought up. There's pros and cons about all – pros and cons of the different alternatives and in Cabinet there can be discussion or the premier could consider it and a decision is made.

And in this case the decision was: We won't do it this way, we're going to go the PUB instead. And that was fine.

MR. HOGAN: Okay.

So the first sentence there was: "Whether to approve the selection and retention of a qualified consultant …." So I mean, you were satisfied. But the PUB is not a consultant, is it?

MR. T. MARSHALL: No, but they – in doing their work they would hire the consultants and experts they need also.

MR. HOGAN: Okay. I mean, you were –

MR. T. MARSHALL: You have to remember –

MR. HOGAN: – they were hired –

MR. T. MARSHALL: You have to remember that, you know, we're not experts, you know –

MR. HOGAN: Oh, I know.

MR. T. MARSHALL: – we're just lay people and we have –

MR. HOGAN: I just want to talk about what was done –

MR. T. MARSHALL: But we understood that and knew that you had to get expertise for this project.

MR. HOGAN: I just want to get at what was actually done, compared to what the opinion was in this direction note.

MR. T. MARSHALL: All right.

MR. HOGAN: So a qualified consultant was not hired; PUB was referred the question?

MR. T. MARSHALL: The question, yes.

MR. HOGAN: An independent review – and I agree PUB is independent – on the detailed project analysis. Now, two – one question was put to the PUB, Isolated or Interconnected. So were you satisfied with that going to the PUB as opposed to what went to the UARB, which was tell us what the least-cost opinion is out of any option?

MR. T. MARSHALL: Yes, I was satisfied.

MR. HOGAN: You were satisfied.

MR. T. MARSHALL: Nalcor had done preliminary screening and these were the two lowest cost ones, so we wanted to make sure that the least-cost one was (inaudible).

MR. HOGAN: Okay.

I'm gonna get back into politics a little bit. This was May of 2011 and there was a fall election in 2012 – or 2011, correct?

MR. T. MARSHALL: October, yeah.

MR. HOGAN: And I'm going to suggest to you that the issue of that election was Muskrat Falls. Do you agree or disagree?

MR. T. MARSHALL: Yes.

MR. HOGAN: You agree.

Do you think you or Mr. Skinner or someone had any duty to the public to disclose that there were people within government that thought an independent consultant should be hired to review the Muskrat Falls Project?

Because I would suggest that the public was under the assumption that government was satisfied with what had been done, and we were voting to approve or not approve Muskrat Falls. And that all the work had been done and the government was satisfied with it at that stage. Because once the 2011 ballots were cast, I would suggest, Muskrat Falls was a done deal.

MR. T. MARSHALL: Well, if that was the case we would've approved it right away, but we didn't. It went through lots of analysis up until sanction in 2012.

You know, the term sheet had been done in 2010. So a lot of analysis was being done. And yes, we sought direction, because we had an energy policy. And in that campaign, we sought approval of developing the Lower Churchill. But it was always subject to review and analysis and ultimate sanction. There was a Decision Gate process that was taking place; there were checks and balances through that process. So that process had to be completed, and there was always a possibility that it would not have gone ahead.

MR. HOGAN: Yeah, but in any event, the public wasn't aware of these – this opinion within government that there should've been a full, independent review at the time of the election in 2011. Is that fair to say? This direction note, certainly, wasn't disclosed to the public, was it?

MR. T. MARSHALL: No, this was a recommendation to government. And government decided to go a different – in a different direction.

MR. HOGAN: And just in terms of those analyses that you said were still ongoing to the DG3 process, the January 2012 opinion, information note – so this is – sanction was later on that year, and you said you were still doing things to get through DG3, but you also said that there was no time to wait.

So my question is: If there was no time to wait in January of 2012, then Muskrat Falls was a done deal at that point in time?

MR. T. MARSHALL: Well, there's no question that it was in our –

MR. HOGAN: Sights.

MR. T. MARSHALL: – we wanted to develop the lower Churchill River.

MR. HOGAN: Now, if there was no time to do anything else, what, you know –

MR. T. MARSHALL: But between (inaudible) –

MR. HOGAN: – you may as well have sanctioned it in January 2012.

MR. T. MARSHALL: No, there was more work being done. The final numbers – we didn't have enough engineering done, the final numbers had to be done. There was a lot more work that had to be done; it was done. And –

MR. HOGAN: But if –

MR. T. MARSHALL: – also there were numerous reports.

But let me – I should also say that, look, we put Nalcor in place. You know, the premier and the Natural Resources minister put Nalcor in place to make sure we had the expertise to do this project. So they would do the work and then they had independent experts to review their work. And then it came to us, and we said: Just to be sure, double-check it; we'll get this independent review done.

MR. HOGAN: But what would've happened if the independent review said, don't do it? You're saying, well, what are we gonna do? We're gonna run out of power tomorrow.

MR. T. MARSHALL: Well, then, if they said don't do it, then we'd have to go back to square one, wouldn't we?

MR. HOGAN: Yeah. It probably wasn't gonna happen, was it?

MR. T. MARSHALL: Well, there could've been different configurations.

MR. HOGAN: I mean, there was – it's a bit of *Planes, Trains and Automobiles* here. But this project has been referred – Nalcor has been referred to as full steam ahead, bus was left the station, runaway train. And that sort of, I would suggest, goes in line with that January 2012 decision that there was no time to do anything else.

MR. T. MARSHALL: I think there was a tremendous amount of time spent on this project over the years.

And remember, you know, Nalcor was not an enemy. Nalcor was not some foreign monopoly that came in here. Nalcor were put together by the government, right, to come up with, you know, a recommendation to give us the – to give the people of the province the least-cost option for power.

MR. HOGAN: Right.

MR. T. MARSHALL: And within – you know, consistent with the reliable service. And, you know, a lot of money was spent on that planning. A lot of top people were hired to do that job. A lot of experts came. Tonnes of oversight – Stan Marshall said the most over-governed or more supervision than any project in history.

MR. HOGAN: Mm-hmm.

MR. T. MARSHALL: You know, where do you stop?

And I know that when we – my, you know – I won't say my administration, but the government when I was premier, the one that started in '14, we put in another government oversight team because we wanted the best we had in government on that project ensuring that the construction was going ahead properly. And they hired Ernst & Young to advise them. So there was oversight of the Oversight Committee. We're providing oversight to the board and to the government, who were providing oversight to the executive of Nalcor, who were providing oversight to the team, who had hired SNC-Lavalin. And somebody said – somebody said there should be oversight over Ernst & Young. So where do you stop?

MR. HOGAN: Fair enough. Thank you.

There's a couple more documents to look at. If we could look at P-00910, this an email to you, and she'll bring it up on the screen, Madam Clerk.

THE COMMISSIONER: Tab 6.

MR. HOGAN: Sorry, from Robert Wall, who I read as a – maybe a supporter of yours. Do you know Mr. Wall?

MR. T. MARSHALL: I do.

MR. HOGAN: And I just want to look at your comments at the – if we could scroll down a little bit to the last little paragraph there.

So you're saying this is a great project, and we've heard your take on it –

MR. T. MARSHALL: This guy is my golf buddy.

MR. HOGAN: Right. There – it's good to have good golf buddies. But I'm more interested in what you said to him.

MR. T. MARSHALL: Okay.

MR. HOGAN: Talking about dividends – and Mr. Coffey brought you to some documents yesterday about dividends – talking about there, if you can see: "… 29 years of profit that will go into general revenue of the province to fund health care, education etc."

MR. T. MARSHALL: Yes.

MR. HOGAN: So that was the plan.

MR. T. MARSHALL: Yes.

MR. HOGAN: Yesterday you said, you know, if we go over budget and there's overruns – this is what you said to Mr. Coffey – taxpayers will have to invest more money. Do you recall that?

MR. T. MARSHALL: Yes.

MR. HOGAN: Which is fair enough. Like we've all heard, somebody has to pay for the project.

MR. T. MARSHALL: Right. But government could reduce its dividend, reduce its take and allow the money to go back to be applied to reduce dividends.

MR. HOGAN: To reduce dividends, right.

MR. T. MARSHALL: Right.

MR. HOGAN: My question is, though, is that –

MR. T. MARSHALL: I'm sorry, reduce rates.

MR. HOGAN: – Mr. Williams testified, and you testified yesterday, that we can always use non-renewable resources to invest back into this. (Inaudible.)

MR. T. MARSHALL: Well, that was the original strategy, right, to take those revenues and assets from the non-renewables and –

MR. HOGAN: So what I'll put to you is that the opposite has happened and that we're not going to invest in health care and education. We're actually – have less revenue now than we anticipated, meaning there will be a lack of investment in certain things like health care, education. Do you agree? Given what's happened, given what's transpired.

MR. T. MARSHALL: Well, again, you know, I think your discussion here is about the decisions made at sanction time.

MR. HOGAN: No, I'm not passing judgment –

MR. T. MARSHALL: This is (inaudible) –

MR. HOGAN: – on that –

MR. T. MARSHALL: Yeah.

MR. HOGAN: – whether sanction should've happened or not happened.

MR. T. MARSHALL: Right.

MR. HOGAN: But we're here now and we're over budget –

MR. T. MARSHALL: Right.

MR. HOGAN: – over schedule. The plan to use this money to invest in our province has flipped. And now we have to use revenue – general revenue to make sure the project is finished. Is that fair to say?

MR. T. MARSHALL: Well, the government that the people elect will make that decision. They'll make that determination, how these revenues –

MR. HOGAN: Well, if the money is not there to – I mean, we've written a blank cheque to finish the project –

MR. T. MARSHALL: Well, if the money is not there, yeah, you can't do it.

MR. HOGAN: Can't do it, right.

MR. T. MARSHALL: No.

MR. HOGAN: Last document I want to look at is P-00913. That's at tab 11.

We looked at this yesterday, from Terry Paddon to you – or sorry, to Mr. Bown. You were trying to respond to questions, I assume, in the House of Assembly, maybe, from Yvonne – who is Yvonne Jones I assume?

MR. T. MARSHALL: Yes.

MR. HOGAN: Specifically: "… cheap power for NS, doubling of rates here etc." And again –

MR. T. MARSHALL: Right.

MR. HOGAN: – looking at hindsight now, do you agree that that is what happened, what Ms. Jones was asking about?

MR. T. MARSHALL: I don't remember her questions. I was just – look, I don't remember her questions in particular. But you're mentioning doubling of cost, doubling of rates?

MR. HOGAN: Yes.

MR. T. MARSHALL: And cheap power in Nova Scotia? We were selling – gonna be selling power to Nova Scotia in return for them building a – the Maritime Link. And at the time I think that was going to cost 1.2 billion, and I think it went to 1.5 to 1.6. So in exchange for that, we were going to provide them with power that at the time we did not – it was surplus to our needs; that we didn't need.

MR. HOGAN: Right.

But so Ms. Jones' prediction or questions were fair, now looking back, because we are at risk of power rates doubling, aren't we?

MR. T. MARSHALL: Sorry?

MR. HOGAN: We are at risk of power rates doubling, aren't we?

MR. T. MARSHALL: Yes, well, power rates were going up anyway, don't forget, right, without Muskrat –

MR. HOGAN: Well, I don't know if I agree –

MR. T. MARSHALL: – they were going up to –

MR. HOGAN: – with you on that.

MR. T. MARSHALL: Pardon me?

MR. HOGAN: I don't know if I agree –

MR. T. MARSHALL: Well, that was –

MR. HOGAN: – with you on that.

MR. T. MARSHALL: – my opinion, okay? And that's what I was being advised. That power rates were gonna continue to climb; they were gonna be up in the 14, 15 cent range, and they were gonna continue to rise because of rising oil.

So the plan was if we do this project – by the time we build it the rates are gonna be up anyway, which had nothing to do with Muskrat –

MR. HOGAN: Now –

MR. T. MARSHALL: – Falls.

MR. HOGAN: – my point is that now we know they're not up. They're up 1 cent.

MR. T. MARSHALL: (Inaudible) –

MR. HOGAN: And –

MR. T. MARSHALL: – you're looking back.

MR. HOGAN: – Ms. Jones' questions have now, sort of, come to fruition, haven't they?

MR. T. MARSHALL: Well, cheap power in Nova Scotia, and we're –

MR. HOGAN: Let's just focus on the rates – rather than, you know, Nova Scotia –

MR. T. WILLIAMS: Mr. Commissioner, if the witness could be allowed to finish his question. He gives a response and Mr. Hogan interrupts him –

THE COMMISSIONER: Fair enough.

MR. T. WILLIAMS: – before he completes it.

THE COMMISSIONER: Fair enough.

MR. T. MARSHALL: Okay, well, what happens in other markets, we can't control. In a sense it's like a fisherman who has got more fish than the local market can handle. So his only option is to dump the fish. Unless you can get your – get that fish to another market, but you gotta get it there. And the Link allowed us to get our surplus power to other markets.

And so what's going on in Nova Scotia – they were switching from coal – they don't wanna be – they didn't wanna burn fossil fuels. So they were going from coal to wind. But wind is intermittent. You know, you don't – if the wind is not blowing, you've got no power, or if it's blowing too hard, you've got no power. So they need a backup. And they looked to Hydro-Québec initially to buy hydro power. But hydro weren't interested in the Atlantic market. And that evidence is Rick Janega's testimony before the UARB.

So they came to Nalcor, and said: Look, you know, you're gonna have this extra power up at Muskrat Falls that you don't need; why don't you build a link and sell it to us? And Nalcor said: No, we – the project's big enough; we don't wanna invest in the – further. So they said: Well, what if we would be able to build a link, and you provide us with the power and the power will pay for the Link? It's power you don't need. So that will pay for the Link, and also that gives you the right to take your other power. It could be free – or not free transmission, but first-transmission rights on the power and take you right through to Boston.

So would rates go up in the future? Yes. But they were going up anyway. That was the concern. And what happens in Nova Scotia – well, if we can make money – if they will build a link for us and we can sell them power that we don't need, or just give them power that we don't need in exchange for that $1.5 billion Link.

MR. HOGAN: Do you think the government, at the time, was open to listening to critics, specifically Members of the Opposition, about the project? Keeping in mind that Nalcor suggested a hit squad on Members of the Liberal, NDP party.

MR. T. MARSHALL: I'd say the government is always open to suggestions, and suggestions wouldn't just come from the Opposition, of course; they'd come from highly regarded people. And we'd – I'd pay attention to them. Even though they disagreed with what they were doing, I certainly read what they had to say. I – everyone's entitled to their opinion, we all know that, and I enjoyed reading their material, hearing what that they had to say. And it would cause me to think and it would cause me to discuss it with people like Mr. Martin and people like Mr. Paddon. We'd have lots of discussions.

MR. HOGAN: (Inaudible.)

MR. T. MARSHALL: Is this right, is that right, do they know what they're doing here? And we were deciding – we got all this information and there were a lot of voices out there –

MR. HOGAN: Mm-hmm.

MR. T. MARSHALL: – and the one I felt of all of those voices, that made the most sense, was Ed Martin.

MR. HOGAN: Was –

MR. T. MARSHALL: Ed Martin.

MR. HOGAN: Ed Martin.

Okay. That's all the questions I have.

Thank you.

MR. T. MARSHALL: Thank you.

THE COMMISSIONER: All right.

Former Provincial Government Officials '03-'15?

MR. T. WILLIAMS: Good morning, Mr. Marshall.

MR. T. MARSHALL: Good morning.

MR. T. WILLIAMS: Tom Williams. I'm representing the former government officials for 2003 – elected government officials, I should say, from 2003 to 2015, with the exception of former Premier Dunderdale.

MR. T. MARSHALL: Right.

MR. T. WILLIAMS: I only have two short or three short questions for you this morning.

MR. T. MARSHALL: Sure.

MR. T. WILLIAMS: Much has been made over the last day or so with respect to the issue of an independent review, and I think it arises substantially from the decision note that was forwarded by yourself and former Minister Skinner.

MR. T. MARSHALL: Direction note. That was a direction note.

MR. T. WILLIAMS: The direction note, I'm sorry.

MR. T. MARSHALL: Yeah.

MR. T. WILLIAMS: And that was in May of 2011. And I – am I correct in stating that within approximately 30 days after that note had been signed off on that government made the decision to send this question of the least-cost option to an arm's-length body, being the Public Utilities Board that was a quasi-judicial body, to conduct a review?

MR. T. MARSHALL: Yes, I'm not sure of the time frame. I –

MR. T. WILLIAMS: And I – well, I know you're – the –

MR. T. MARSHALL: But the –

MR. T. WILLIAMS: – the direction note was made and the reference, I believe, was June 17, so approximately a little over 30 days.

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: Okay.

MR. T. MARSHALL: That was the decision, to go to the PUB as opposed to this independent analysis done by –

MR. T. WILLIAMS: So for the –

MR. T. MARSHALL: – (inaudible).

MR. T. WILLIAMS: For the remainder of the period of 2011, that project was under review by the Public Utilities Board, and then, at the request of the Public Utilities Board, there was an additional three-month extension granted that brought it into March.

MR. T. MARSHALL: Yes, I remember that.

MR. T. WILLIAMS: So for that period right up until March of 2012, this project was under independent review.

MR. T. MARSHALL: Correct.

MR. T. WILLIAMS: And, in fact, without any input from government, the Public Utilities Board hired their own independent experts, being Manitoba Hydro?

MR. T. MARSHALL: That's correct.

MR. T. WILLIAMS: Okay.

And we know that in March when the decision came down, the Public Utilities Board felt they couldn't make a determination, yet their own expert, who took the nine months to review, were able to make a decision or a conclusion that this was the lowest cost option?

MR. T. MARSHALL: That's correct. That was the –

MR. T. WILLIAMS: Okay.

MR. T. MARSHALL: – first MHI report.

MR. T. WILLIAMS: Yes.

MR. T. MARSHALL: It was done for the PUB.

MR. T. WILLIAMS: And they were solely retained at the direction of the Public Utilities Board?

MR. T. MARSHALL: That's correct.

MR. T. WILLIAMS: Okay.

So we know from the other evidence that very shortly within a week –

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: – government then made the effort to continue a review for the DG3 process and retained the same experts that were seen to be independent by the Public Utilities Board?

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: And that at that point they then continued with the complete review of this project, over the remaining period of 2011 –

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: – right up until – I don't have the exact date, but I believe it was in November of 2011.

THE COMMISSIONER: 2012.

MR. T. MARSHALL: '12.

MR. T. WILLIAMS: 2012, I'm sorry.

MR. T. MARSHALL: Yeah.

MR. T. WILLIAMS: Thank you, Commissioner.

So that remained under review. So it was basically, with the exception of a small brief period of time, this project was under review from June of 2011 right up 'til November of 2012.

MR. T. MARSHALL: That's correct.

MR. T. WILLIAMS: And at the same time government had engaged discussions and negotiations with the federal government regarding the loan guarantee.

MR. T. MARSHALL: That's correct.

MR. T. WILLIAMS: And part of that obligation, due diligence that the Government of Canada did was conduct their own independent review.

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: And that they hired their own experts and engineers to completely review this project?

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: Okay.

So right up to the point of sanction, from June of 2011, this project was under independent review.

MR. T. MARSHALL: Right, no question.

MR. T. WILLIAMS: No question. Thank you.

Now, Mr. Marshall, during your 11 years in government you served as a minister of Justice and Attorney General.

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: You've served as a minister of Finance –

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: – and member of Treasury Board. You've served as a minister of Natural Resources.

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: And you also served a brief period as premier of the province, correct?

MR. T. MARSHALL: Correct.

MR. T. WILLIAMS: Okay.

Yesterday it was put to you that you were intentionally misled by Nalcor with respect to certain aspects of this project. And the day preceding we had evidence from Mr. Terry Paddon; whose evidence was publicly criticized by a party with standing, Mr. Penney here of the coalition, who described his evidence as a shocking and disgraceful indictment of our public service. And this was in regards to a former Auditor General and respected deputy minister –

MR. T. MARSHALL: Yes.

MR. T. WILLIAMS: – for whom served under your ministry.

MR. T. MARSHALL: Right.

MR. T. WILLIAMS: Given your 11 years in government, what was your experience and how would you describe the honesty, integrity and the commitment of the civil service that you dealt with in the Province of Newfoundland and those at Nalcor in respect to this approach?

MR. T. MARSHALL: It was – I've always considered it a privilege and an honour for me to have been able to work with the civil service of the province. People like Terry Paddon and

Charles Bown, they, you know, are outstanding individuals. The province is lucky to have them. They did great work. And I had complete confidence in them.

And to me they're – although, you know, Mr. Learmonth put me – put to me questions about whether or not I felt I was misled based on assumptions that he gave me. The conclusion was that I was misled. But I'm anxious to hear the other side and – 'cause I do not believe that I was misled and I would be very surprised to see any evidence to that effect.

But the civil service – you know, the people of the province can rest assured that – top quality civil servants – as I said, it was an honour for me to work with them and it was an opportunity that I'm grateful that I had. They would not mislead me. Errors could be made – we all make errors. We all make mistakes. And we can't predict the future. You just make decisions that involve the future. All you can do is go on the best information you can and try to get the best people you can and then you make the decision. And mistakes get made.

MR. T. WILLIAMS: (Inaudible) and following up on that, and probably just in conclusion. In retrospect, given your efforts and the efforts of government and the efforts of Nalcor, were you satisfied that in December 2012, when you voted to sanction this Muskrat Falls Project that you felt that all reasonable and extra efforts had been made to assure that this was the lowest cost option for the province and in the best interest of the people of the province?

MR. T. MARSHALL: I believe that. The lowest cost option was important to me because I know – you know, I had a feeling that the, you know, the people of the province were concerned about rising electricity rates and didn't want them to rise in the future. So this was the best option we had.

And in addition, I thought knowing how the owners of control businesses, like power plants and telephone companies and cable companies – knowing that they are – they could be lucrative, but they're regulated by PUBs and CRTCs and what have you. That profit, or that return, instead of going to the investors, would go back to the people of the province, to lower rates or to build hospitals or build schools and finance progressive social programs for the people. And I thought this deal would do that and I was satisfied. That's why I voted for it.

If I wasn't satisfied – and I listened to other arguments and I listened to the critics and listened carefully to what they had to say, but that was my opinion as to what would be best for the future of this province.

MR. T. WILLIAMS: Thank you.

That's all the question I have.

THE COMMISSIONER: Redirect, Mr. Learmonth?

MR. LEARMONTH: Mr. Marshall, in the cross-examination of counsel, you referred at least once, probably twice, to your belief that there was a 15 per cent contingency included in the cost estimates.

MR. T. MARSHALL: There had been information in the decks that indicated that, yes.

MR. LEARMONTH: But it wasn't. There was no 15 per cent contingency in the cost estimate. So you assumed or believed it was 15 per cent.

MR. T. MARSHALL: I believed what I was – I believed the information that was given to me, yes.

MR. LEARMONTH: Yeah. Well, it wasn't. There was a 7 per cent allowance for tactical risk; there was no 15 per cent in the cost estimates.

MR. T. MARSHALL: Okay, well, I was under the understanding that there was.

MR. LEARMONTH: Well, who would've provided you with information that would've caused you to misunderstand this important point?

MR. T. MARSHALL: The information was provided to me as minister when I was there.

MR. LEARMONTH: By who?

MR. T. MARSHALL: By Nalcor.

MR. LEARMONTH: Yeah, well, that was misleading.

MR. T. MARSHALL: Well, I know you feel it was misleading and I know you have evidence that it was misleading, but you haven't heard from the people that have – that you've said have misled us.

MR. LEARMONTH: Look, if you believed that there was a 15 per cent contingency built into the DG3 estimates, which you've said on numerous occasions –

MR. T. MARSHALL: Yes, yeah.

MR. LEARMONTH: – and there was only 7 per cent built in –

MR. T. MARSHALL: Yes.

MR. LEARMONTH: – and you got the information about the 15 per cent from Nalcor –

MR. T. MARSHALL: Yes.

MR. LEARMONTH: – I suggest to you that it's plain and obvious that you were misled.

MR. T. MARSHALL: You're – if that statement is correct, yes.

MR. LEARMONTH: Yes. Okay.

MR. T. MARSHALL: Yes.

MR. LEARMONTH: And you also said in answer to questioning from one – of counsel that there – words to the effect, I'm not quoting you exactly, but you said that there might be a reason why the 500 million strategic risk was not included in the cost estimate of 6.2 –

MR. T. MARSHALL: No.

MR. LEARMONTH: – at the time of sanction.

MR. T. MARSHALL: No. I think –

MR. LEARMONTH: Okay, well, correct me if I misunderstand.

MR. T. MARSHALL: I think I was saying I knew that the budget, the total budget, which would be the 6.2 plus the one point – the total budget, a lot of that would be – the authority to spend that would be with the project team, but I knew there was also some that could not be spent unless Mr. Martin approved it. He was what was referred to as the Gatekeeper. So it would be his authority only. So he said – you know, that money would not be spent unless he authorized it.

MR. LEARMONTH: But it would be included in the budget.

MR. T. MARSHALL: Yes.

MR. LEARMONTH: Yeah. That's what you believed.

MR. T. MARSHALL: That's what I believed, yes.

MR. LEARMONTH: Yeah.

Well, is there any reason, that you can think of, why in a project like this where, you know, we talk about Nalcor and we talk about the government, but let's face it, it's the people of Newfoundland and Labrador who are paying for this.

MR. T. MARSHALL: That's correct.

MR. LEARMONTH: So is there any conceivable situation that you can think of where Nalcor would be justified in not including a strategic risk assessment in the six point – in their final cost estimate, or at least advising you that there was an amount that was not included?

MR. T. MARSHALL: No, they would give us a total –

MR. LEARMONTH: Can you think of any? Can you think of any reason?

MR. T. MARSHALL: No.

MR. LEARMONTH: No. Okay.

Now, you were asked a number of questions by Ms. Best about this MHI report, and you gave, you know – she presented to you certain excerpts from the report and asked for your comment on it; whether you agreed that this proved one thing or the other.

Now, were you aware that three – the three top representatives of MHI, who prepared the work for the government, the report for the government on the MHI – that's Mr. Kast, Mr. Snyder and Mr. Wilson – while sitting in that same table said that at no time during their engagement were they advised by Nalcor of either the $500 million strategic risk exposure or the P1 schedule issue? They said they didn't know anything about it. Nalcor never told them.

Now, once again, Nalcor is entitled to present different evidence that, you know, we did tell them or whatever. But I want you to assume that that information is correct. That they were – that Nalcor did not disclose those two items to MHI while MHI was preparing their DG3 report to the government.

So if you assume that, does that affect the weight that you would put on the MHI report that was delivered to government in October 2012?

MR. T. MARSHALL: If the assumption is correct, yes.

MR. LEARMONTH: If it's correct –

MR. T. MARSHALL: If it's correct.

MR. LEARMONTH: – and you can assume – I want to make it clear, you can assume that it's correct.

MR. T. MARSHALL: Right.

Okay. Well, if it is correct then yes, the answer to your question is yes. But –

MR. LEARMONTH: Yes.

MR. T. MARSHALL: – I –

MR. LEARMONTH: It would affect the weight?

MR. T. MARSHALL: Yes.

MR. LEARMONTH: (Inaudible.) How would it affect the weight? What effect would it have on the weight?

MR. T. MARSHALL: Because the numbers that were going to the current present-value analysis would be lower than it should've been and that would affect the ultimate outcome.

MR. LEARMONTH: Yes.

MR. T. MARSHALL: And that might have affected – it might have affected which one was the least-cost option.

MR. LEARMONTH: Okay, thank you.

MR. T. MARSHALL: But I don't believe – I mean, based on your assumption, yes, but I don't think that they would deliberately – I don't believe they deliberately withhold information.

MR. LEARMONTH: Well, whether it was deliberate or not, I'm saying and emphasizing – I'm not pulling this out of the air as a hypothetical. I'm saying that three men from MHI sat at the same table you're sitting at last Monday and said without equivocation that they were not advised by Nalcor, nor were they aware from any other source, about this $500 million strategic risk in the P1.

So, as I say, I'm not pulling this assumption out of the air. I recognize Nalcor can – is entitled to present other evidence, but for the purpose of the question, and I think I made it very clear, I want you to assume that those facts are true.

MR. T. MARSHALL: Then the weight of the report would be compromised.

MR. LEARMONTH: Yes. Thank you.

Now, you mentioned, Mr. Marshall, in your response to some questions – you talked about, you know, this 8.4 dividend and that government could, you know, not call for the dividend to be paid.

MR. T. MARSHALL: Mmm.

MR. LEARMONTH: And you also said that perhaps some of the revenues from offshore-oil projects could be used to, you know, address the problem with rates. Did you not say that?

MR. T. MARSHALL: Well, currently.

MR. LEARMONTH: Yeah. Yeah.

MR. T. MARSHALL: Currently.

MR. LEARMONTH: But – okay, with respect to this offshore revenue point of it being used to, you know, perhaps mitigate rates, I suggest to you that that's an afterthought, that – because at the time of sanction there was no discussion, zero discussion or communication by government on this point. Do you agree?

MR. T. MARSHALL: All I remember is that in the House, I can't remember the dates, that question was put to me and I used to say, look, the government can – the governments of the day, future governments, can decide. That revenue that's coming into Nalcor that they would in turn pay a dividend to a government; governments can decide what they're going to do with that revenue.

MR. LEARMONTH: Right.

MR. T. MARSHALL: Some governments may decide to lower the rates; others may want to do other things with it.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: You know, our government did in that in past, where we put money in to reduce rates.

MR. LEARMONTH: Yeah, but there was no time, I suggest to you, until recently that there was a suggestion that, oh, well, if Muskrat Falls doesn't work out, we can – you know, any increase in rates caused by cost overruns can be paid for by offshore oil revenue.

MR. T. MARSHALL: Well, the comment I made wasn't in reference to cost overruns; it was in reference to what government would do with the dividend.

MR. LEARMONTH: Yeah, okay, but if government doesn't take the dividend, what's government going to have to do to replace the income that would be represented by that dividend? Where's the money coming from?

MR. T. MARSHALL: From other revenue sources, if they're available.

MR. LEARMONTH: Or borrowing.

MR. T. MARSHALL: Or borrow, yes.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: Yeah.

MR. LEARMONTH: So it's not just a question of saying keep the money. It's a question of: You keep the money, and we'll have to make up for the deficiency caused by your keeping the money, by borrowing.

MR. T. MARSHALL: Well, it depends on the situation. I was a Finance minister. I did five budgets. I didn't have to borrow. I guess it depends what the future economy would be. But, yes, I get your point that other monies would have to be used. If you're not using the revenue from the electricity –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – project, that dividend, if you don't have it, then if you're going to spend money on other things, you have to come up with it somewhere else, which –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – is either from the taxpayers by taxing them, or by borrowing.

MR. LEARMONTH: Yes, so – okay. I just wanted to clarify that.

And you mentioned, twice, that Stan Marshall, the president – CEO of Nalcor, had said that this was the most – this project had more oversight than anyone he had seen, or something to that effect.

But I suggest to you that the oversight that Mr. Marshall was referring to was oversight that was applied to this project after sanction; not before sanction.

MR. T. MARSHALL: Well, I – okay. There was – yes, we added –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – oversight, no question, after sanction.

MR. LEARMONTH: Yeah, but that was all after –

MR. T. MARSHALL: There was also oversight prior there, too – was there not?

MR. LEARMONTH: Well, you know, you spoke about the Oversight Committee; that was 2014. You talk about Ernst & Young, and you talk about things like that.

MR. T. MARSHALL: Right.

MR. LEARMONTH: That's not relevant to the issue of whether there was oversight at the time of sanction. That's after the fact.

MR. T. MARSHALL: Well, would you like me to repeat what oversight there was there? I can do that, if you'd like.

MR. LEARMONTH: Okay, go ahead. Up until the time of sanction.

MR. T. MARSHALL: Up until the time of sanction.

Well, there was a board of directors put in place with some –

MR. LEARMONTH: All right.

MR. T. MARSHALL: – you know, very competent people there. But you had a team – you gotta remember that the government put in to effect this group, Nalcor, and they were given resources to hire professional people with capacity that government did not have at the time, for the purposes of doing this project. And, you know, they hired experts with SNC-Lavalin, and they did work. And then the risk analysis – they had Westney consultant, and there were a lot of other consultants that they got themselves to look at this project, and present it.

They were – they had external auditors – I'm sorry, so the project team, with their experts, their lawyers, their accountants, their engineers and there were a lot of them. They reported to the executive of Nalcor.

MR. LEARMONTH: Mm-hmm.

MR. T. MARSHALL: Mr. Martin and a Gilbert Bennett and Mr. Sturge – and Mr. Sturge had come from the private sector and he led, I think, the corporate oversight committee of Deloitte.

MR. LEARMONTH: Mm-hmm.

MR. T. MARSHALL: So there'd be oversight – one level of oversight there of the project. Then they had external auditors. They had the benefit of the independent engineer when he was appointed. The Auditor General had the right to go in any time he wished to go in.

And they had the board, there was oversight provided by the board and the board, as I said, had skills that they brought to oversight. The board had a governance oversight committee that Tom Clift from Memorial University – the business school – that, I think, he had a lot to do with putting into effect with Mr. Martin – in terms of corporate governance. And there was an independent Audit Committee of the board that would meet with Nalcor's internal auditors and Nalcor's external auditors. Then there would be – they would meet with – officials of Nalcor would meet with officials of government and keep them in the loop as to what was happening.

And then, over and above that, there were many meetings in the premier's office of senior government officials – the premier, the minister of Natural Resources, the deputies – where Nalcor would report. And they did a lot of these meetings. There was a lot of updates. And of course that is oversight as well. So that was the oversight that was in effect then and then we added to it later on.

So I had recommended before sanction – as you know – Mr. Skinner – Minister Skinner and I had recommended, based on advice from Mr. Bown and Mr. Paddon to do – before sanction – to do this independent – and it was to go to one of the management consultant – to go to Ernst & Young or to one of the major accounting firms like Grant Thornton, who were not already working for Nalcor, because Pricewaterhouse was working for Nalcor on the financing and Ernst and Deloitte were their auditors. So – but that thing went to the PUB and then when the PUB did not – or felt they couldn't do the report because they didn't have the DG3 numbers, the government decided to hire MHI International, who the PUB had selected as their expert.

MR. LEARMONTH: So you –

MR. T. MARSHALL: So Nalcor didn't select them, the government selected them. So there was oversight.

MR. LEARMONTH: Mr. Marshall, I'm very surprised that you are – when asked to describe oversight, you're talking about internal matters that were under the control of Nalcor, for example, hiring Westney, hiring auditors and so on. That has nothing to do, I suggest, with oversight. That's some – that's an internal process that requires oversight by government.

MR. T. MARSHALL: Okay, well, I'll admit they had their own experts –

MR. LEARMONTH: So what's – how is that – okay, finish your – finish.

MR. T. MARSHALL: Well, the – but there – MHI would've been independent. Government hired them; not Nalcor.

MR. LEARMONTH: (Inaudible) –

MR. T. MARSHALL: The reference to the PUB that would've been oversight.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: The fact that they would come in and report to government, and government officials – that's oversight. The Auditor General would be oversight; the independent engineer would be oversight. So there was – but I agree with you. A lot of those reports that you referred to were reports done – requested and paid for by Nalcor.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: And so that would not be true oversight.

MR. LEARMONTH: Okay, so you –

MR. T. MARSHALL: I'll accept that.

MR. LEARMONTH: – correct your evidence?

MR. T. MARSHALL: Yes. Yeah.

MR. LEARMONTH: Okay.

And you talk about reporting to government, but you also said that government didn't have the ability to assess the information, and digest and analyze the information, so you relied on Nalcor.

So how is that – you know, just having a meeting, when you're relying on Nalcor –

MR. T. MARSHALL: Not one meeting – many, many meetings.

MR. LEARMONTH: Yeah, but you don't know –

MR. T. MARSHALL: Questioning.

MR. LEARMONTH: – you don't have the expertise –

MR. T. MARSHALL: No, but questioning, pushing back –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – trying to satisfy ourselves that they were doing it right.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: Because if we weren't satisfied to that effect, then we would've gone and got somebody else to do it.

MR. LEARMONTH: Yeah, but you were relying on them and you said that you trusted their information. How is that oversight?

MR. T. MARSHALL: Well, there was oversight, as I indicated. But, yes, they were also our team to do this project –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – and when I dealt with the individuals, and I had confidence that they were doing the best they could.

MR. LEARMONTH: Yeah. You trusted them?

MR. T. MARSHALL: Yes.

MR. LEARMONTH: But that's not oversight, I suggest to you.

MR. T. MARSHALL: Well, there were – as again – lots of questioning, lots of pushing back and then at the end it was referred to the PUB.

MR. LEARMONTH: Yeah. But the pushing back was by people like yourself – and I'd certainly be in the same – that I wouldn't really know, I wouldn't be in a position to assess the information they were giving. I'd have to accept it.

So how is that oversight?

MR. T. MARSHALL: Well, you hire people to do work for you, and then you make them account to you –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – for what they're doing. And you question and satisfy yourself –

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: – that they're doing it, and you're happy with what they're doing. And if you're not, you make a change.

But then again, we did, we did recommend over – independent oversight – additional independent oversight.

MR. LEARMONTH: (Inaudible) –

MR. T. MARSHALL: And government referred it to the PUB.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: That is independent oversight, is it not?

MR. LEARMONTH: Well, it – I'm not speaking about that. We'll get to that later. But I'm talking about this business about having meetings with them, acknowledging that you don't really have the expertise in government to assess this information and then saying that just because you had meetings and slide deck after slide deck that, by listening to this and seeing the slide deck, that somehow you say that that is oversight.

MR. T. MARSHALL: Well, it's –

MR. LEARMONTH: And I'm questioning –

MR. T. MARSHALL: I'm going to say it's the first level of oversight.

MR. LEARMONTH: Well –

MR. T. MARSHALL: I mean, you know, the alternative would be to say: Well, don't come in, don't bother, just go do it –

MR. LEARMONTH: Well –

MR. T. MARSHALL: – and let us know when it's done. We obviously wouldn't do that. But, you know, I get your point. I get your point and – but there was oversight. There was oversight in the sense of it went to the PUB, it went to MHI.

MR. LEARMONTH: Well, there's – okay, that – if that had been your answer earlier, I would've understood what you're saying.

MR. T. MARSHALL: Mm-hmm.

MR. LEARMONTH: But you can understand the concern I would have about the other part of your answer.

MR. T. MARSHALL: Yes, okay.

MR. LEARMONTH: By calling that oversight.

MR. T. MARSHALL: All right.

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: Well, in setting up my answer, I referred to things that would not –

MR. LEARMONTH: Well –

MR. T. MARSHALL: – strictly speaking, be oversight, but I still maintain that there was oversight.

MR. LEARMONTH: Well, you can make that conclusion, but I think we have to know the basis upon which you – what you reached that conclusion.

MR. T. MARSHALL: Sure, of course.

MR. LEARMONTH: And you've just given your answer, so it's not for me to assess the reasonableness in what you're saying; it's for the Commissioner, ultimately.

MR. T. MARSHALL: Okay.

MR. LEARMONTH: But anyway, thank you for answering those questions.

MR. T. MARSHALL: Yeah.

MR. LEARMONTH: And on this, you talked about the team and so on. Did it ever occur to you, up until the time of sanction, that the team, the project team that were presenting all these slide decks and so on, that they had a vested interest in this project succeeding – proceeding? Because they were looking forward to, if it proceeded, to many, many years of receiving high income from this project.

MR. T. MARSHALL: Well, it wasn't the project team that were reporting to us; it was the executive of Nalcor were reporting to us.

MR. LEARMONTH: Yeah, but they were presenting information that had been developed by the project team.

MR. T. MARSHALL: Yes.

MR. LEARMONTH: Yeah. But did that point ever occur to you? That these people are looking out for their own interests, to some degree, because they want to get these lucrative contracts and work on this project for a long time, did you ever consider that?

MR. T. MARSHALL: I think the people that were presenting to us were people that would be in high demand; if they weren't working for us, they'd be working for somebody else.

MR. LEARMONTH: Okay, will you answer my question? Did you ever consider that –?

MR. T. MARSHALL: The people working on the project?

MR. LEARMONTH: Yeah.

MR. T. MARSHALL: I mean, obviously, there'd be some people saying this is great. You know, we're gonna have this project, there's gonna be lots of work. I'm sure some thought that way.

MR. LEARMONTH: Okay, but I'm not asking – I'm asking you for the third time: Did you ever consider that point in assessing the information you're receiving from Nalcor?

MR. T. MARSHALL: I don't know if I considered that.

MR. LEARMONTH: Okay.

Those are all my questions.

Thank you very much, Mr. Marshall.

MR. T. MARSHALL: Thank you, thank you.

THE COMMISSIONER: All right. Thank you, Mr. Marshall.

Hopefully you can make your flight now. I don't know what time it is, but hopefully you can make –

MR. T. MARSHALL: No, no, no –

THE COMMISSIONER: – your flight. We appreciate you coming back this morning.

MR. T. MARSHALL: Sure you don't want me to come back?

THE COMMISSIONER: If you'd like to come back, we might have you back. (Inaudible.)

MR. T. MARSHALL: Can I just say – I just got to say one thing to Mr. Learmonth: Bob Wall?

MR. LEARMONTH: Pardon?

MR. T. MARSHALL: Bob Wall – a really good golfer, okay?

MR. LEARMONTH: Is he?

MR. T. MARSHALL: Yeah.

MR. LEARMONTH: Well, he used the word "tiger" in that email so I'm presuming –

MR. T. MARSHALL: That was me (inaudible).

MR. LEARMONTH: – he was referring to Tiger – your tiger –

MR. T. MARSHALL: Yeah.

MR. LEARMONTH: – I just wanted to make sure about that.

MR. T. MARSHALL: That was (inaudible).

MR. LEARMONTH: Okay, thanks very much. Maybe you can give me a lesson or two sometime.

THE COMMISSIONER: Thank you, Mr. Marshall.

The next witness –

MS. O'BRIEN: Will be Jason Kean.

THE COMMISSIONER: Jason Kean.

MR. LEARMONTH: (Inaudible.)

UNIDENTIFIED FEMALE SPEAKER: (Inaudible.)

MS. O'BRIEN: Commissioner, while we're waiting for the witness, I can seek to enter the exhibits.

THE COMMISSIONER: Okay.

MS. O'BRIEN: Looking to enter as new Exhibits: P-00884 to P-00904, P-00944, P-00954 to P-00959, P-00997 to P-01022.

THE COMMISSIONER: Okay.

Have you canvassed with Mr. Kean whether he wishes to be sworn or affirmed?

MS. O'BRIEN: He will take an oath.

THE COMMISSIONER: All right, be sworn.

Take your – place your right hand on the Bible, if you would, please.

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. KEAN: Yes, I do.

CLERK: State your name for the record, please.

MR. KEAN: Jason Kean.

CLERK: Thank you.

THE COMMISSIONER: You can be seated there, Sir.

Thank you.

MR. KEAN: Thank you.

MS. O'BRIEN: Good morning, Mr. Kean.

MR. KEAN: Good morning to you.

MS. O'BRIEN: I'm going to begin with reviewing your CV.

Madam Clerk, could we please have up Exhibit P-00954? It's at tab 1, Mr. Kean, of the book before you.

By way of introduction, I should advise, Commissioner, that Mr. Kean is the first member of the project management team that we've had testify here at the Inquiry. And we're going to go through – quickly through his background and then what his position was on that team.

THE COMMISSIONER: Okay.

MS. O'BRIEN: So before you this is a résumé, it actually dates, Mr. Kean, from 2011. So you were working on the project when this résumé was created. You have provided us a more recent one since, which covers your time since the project; we'll review that at the end of your testimony.

But right now we'll start here, and if you can just look – I'm looking at page 2, and can you just quickly review your education for the Commissioner, please?

MR. KEAN: Sure. I'm a graduate of Memorial University's engineering program, mechanical speciality, co-op program, graduated in 1998. I was a Dean's List recipient.

In 2002, I commenced a part-time Master's in Business Administration program at Memorial, part-time, which I concluded in 2010.

I'm a registered professional engineer with Professional Engineers and Geoscientists of Newfoundland. I'm an accredited project management professional from the Project Management Institute. And I've been a member of the Association for the Advancement of Cost Engineering since 2004, I think.

MS. O'BRIEN: Okay, so you earned your MBA while you were working on the project?

MR. KEAN: I concluded –

MS. O'BRIEN: You completed it –

MR. KEAN: Yes.

MS. O'BRIEN: – you concluded it. Thanks.

Could we please go to the bottom of page 4, please? And that will bring up your – looking at your work history, I think, since you graduated with your engineering degree.

So it looks like you started there with Husky Oil in '97?

MR. KEAN: I was working – that was a co-operative placement, actually –

MS. O'BRIEN: Okay.

MR. KEAN: – working in an asphalt refinery in Alberta – I think my last work term.

MS. O'BRIEN: Okay.

MR. KEAN: After which I was – had the good fortune – had a couple of career opportunities proposed to me, but I eventually joined Petro-Canada who was in the planning phase for the Terra Nova Development. So I got a great lot of exposure to the engineering phase of that project and a lot of the project management and execution. From which I got into – Petro Canada had a growing asset base or I joined the team focused on a lot of new developments. I spent quite a bit of time in the early phase for the concepts selection of White Rose and eventually we selected a floating system, and also the early phase of Hebron, wherein we eventually selected a gravity-base structure.

From which, I guess, in 2002 I took the leadership role for Petro-Canada in its joint venture activity for the White Rose field development. I led that through the engineering construction phase and I was requested to provide some support back to the Terra Nova asset group who were planning to do a dry docking of the Terra Nova FPSO in Rotterdam. So I led the project services team there – all the planning for that activity; all the contract development; all the support services arrangements. And I think that was about a year's program.

And after that I started to look elsewhere for opportunities because there wasn't a lot of opportunities here on the East Coast at that point in time and I eventually joined the then Newfoundland and Labrador Hydro Group working on the Lower Churchill projects.

MS. O'BRIEN: Okay. And I'll pick it up there again. So you had – essentially up to that point, you spent your career in the oil and gas sector.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

And now, so just a – I'll probably lead you through some of this evidence, Mr. Kean, just so we can get through it a little quickly.

But – so I understand in the summer 2006 you were essentially looking around. Your project with Petro-Canada was coming to an end, so you're putting feelers out. And by that time Paul Harrington had already joined the Lower Churchill Project. I think he originally joined as project implementation manager; later became project director.

MR. KEAN: Yes. That's correct.

MS. O'BRIEN: Okay. And did you know Mr. Harrington?

MR. KEAN: Yes, I knew Paul from a business acquaintance. He had performed some services with Petro-Canada in the Terra Nova and also some work – some support to the White Rose team.

MS. O'BRIEN: Okay. So you knew him professionally.

MR. KEAN: Yes.

MS. O'BRIEN: You'd worked with him.

MR. KEAN: I knew him professionally.

MS. O'BRIEN: Okay.

And so I – Mr. Harrington let you know that Nalcor would soon be looking for a team to look at – work at the early stages of the Lower Churchill Project.

MR. KEAN: Yes. As I recall, I reached out to quite a few colleagues to explore about opportunities that maybe exist here locally, versus making the move and elsewhere, outside of Newfoundland and Labrador. And Mr. Harrington – or Paul did indicate that, you know, the plans were coming together to do some recruitment for the Lower Churchill group and that I should, you know, keep looking through the papers and be aware of any recruitments that – postings that may come about.

MS. O'BRIEN: Okay, and then there was a posting. I understand there was a job posting – I think, I have noted here September 2006 – for a business services manager. Is that right?

MR. KEAN: That's correct. Yes. That was posted in *The Telegram*.

MS. O'BRIEN: Okay. And so you applied.

MR. KEAN: I applied on that posting and I was, I guess, shortlisted for several interviews that I held – or I participated in. And that occurred throughout the fall.

MS. O'BRIEN: Okay. And I understand you ultimately didn't get the job of project – as service – project services – or business services manager which was advertised, but during the course of that, I understand, Nalcor decided actually they may be creating a second job: project services manager. And so someone was hired as the business services manager, but you were ultimately offered the job as project services manager. Is that fair?

MR. KEAN: Just to – yes – partially correct. They split the role in both a project services manager and commercial services.

MS. O'BRIEN: Okay.

MR. KEAN: Because of the magnitude and breadth to make it more manageable for –

MS. O'BRIEN: Okay.

MR. KEAN: – the incumbents.

MS. O'BRIEN: Okay. And we have some exhibits filed that cover this information, but I don't intend to go through in any detail. I'm gonna try to summarize them and make sure it's accurate. But originally there was some consideration given to you coming on as an employee with Newfoundland and Labrador Hydro. Is that right?

MR. KEAN: Correct.

MS. O'BRIEN: Okay. So there was some back and forth. Just to – and they're – it's there in the emails, but just to summarize it, ultimately, I take it you did – you – there was a gap in salary expectation.

MR. KEAN: I was looking for a career, and the corporation intrigued me. A long fascination in the hydro sector, personally, so I thought it was a great career opportunity. And I had been an employee – thought no reason not to be – remain as an employee, but we just couldn't reach an arrangement.

MS. O'BRIEN: On salary?

MR. KEAN: On salary.

MS. O'BRIEN: Okay. So then ultimately it was decided you'd be hired on as a consultant?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. And then you formed your own company, which is Project Solutions Inc.?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. And you were essentially then hired as a consultant through that company?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And that is a company you own together with your wife. And you're the only people who have any involvement or hiring through that company.

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. All right.

Can we please bring up P-00958? It's at tab 38, Mr. Kean, in the book in front of you.

This is your first contract with – you started out, of course, it was still Hydro. Sorry (inaudible) here. So here's the contract here. Now, this was – as I understand it, this evolved into what they sometimes call an evergreen contract. Is that right?

MR. KEAN: It would be renewed annually, and this was a first – it was a one-year term.

MS. O'BRIEN: One-year term.

MR. KEAN: And on performance, it would be renewed of course.

MS. O'BRIEN: Right. And eventually this was transferred over to Nalcor, right?

MR. KEAN: Yes, that's correct.

MS. O'BRIEN: Okay. And then ultimately it – you always worked on a one-year term contract that would be renewed annually with adjustments for your hourly rate and any other minor adjustments that would be needed from year to year, is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. So right now I'm just going to go to the scope of work. Page 9, please, Madam Clerk.

So here's your work description here, your statement of work, at this document here, when you got hired as project services manager, and we – there's gonna be some topics; we'll get back there, but we can see that one of the things you were dealing with was a risk – items of risk for the project.

Can you – I know that eventually you became deputy project manager, so can you please just give the Commissioner an explanation of how your role as project services manager changed to deputy project manager, and then I do believe there was a further change as well.

Can you summarize that please?

MR. KEAN: Sure.

So when I joined the group in March of 2007, there was a lot of business process to be established, a lot of organizational capacity and capability to be established, so quite a bit of effort to recruit team expertise in support of the items that are listed here and to establish those working interfaces such as with the finance and economic modelling group.

As the time progressed and we were – we had selected an EPCM delivery model, the general project manager at that point in time, whose name is Ronald Power, he recognized that he needed some support in that area, in terms of mobilizing the EPCM consultant and readiness of the – all of the interfaces and working relationships, so I guess it was identified that I could be his deputy.

So in about the end of 2010, I became the deputy general project manager for the Muskrat Falls projects, and that continued really up until very – I guess until the division between generation and transmission, wherein I was the deputy general project manager, only transmission.

In about 2013, I – it was, I guess, acknowledged that we needed some managerial support, a bit more focus on the overland transmission component of the project, which is one of the four components of the Muskrat Falls projects, and I was asked, I guess, to assume a leadership role there in supporting that team so, effectively, if you would, the senior project manager for the overland transmission component of the Lower Churchill Project.

MS. O'BRIEN: And when you took that on, you were still also deputy project manager at the same time. That was –

MR. KEAN: Yes, yes.

MS. O'BRIEN: – really an expanded role, not a changed role?

MR. KEAN: That – of course, that group had two senior project managers in the transmission groups, so there was a well staffed and well organized – it just needed a bit more pulling things together, you might say.

So I continued that role up until the time I departed.

MS. O'BRIEN: Okay, and we'll cover that briefly at the end of your testimony, your examination in chief today.

Okay, so during the period that we're mostly gonna be focused on in your evidence in this phase, you were project services manager, and then you became, at the end of 2010, the deputy project manager. And I'm just going to bring up an org chart, just to show how that position kind of fit in within the general organization. P-00999, please, Madam Clerk. Tab 45 of the binders.

And Commissioner, you may recall, when we had Mr. Derrick Sturge on the stand, there was a number of org charts entered for Nalcor generally. Today, because Mr. Kean is the first member of the project team who's on the stand, we have entered a number of org charts that focus on the Lower Churchill Project and how that project was organized. There are many of these organizational charts. We have entered, I believe, two – in the current exhibits – two sets of them – one for 2011; one for 2012. The ones I have up are the 2012 ones. And I'm not going to go through every sheet, they're extensive.

But Madam Clerk, if we could just go to page 8, please. And if you could make that a little bit bigger – make a little bigger, please. And even a little bit bigger. Oh, a little down. Okay. I'll work with that.

So I just want to – just, sort of, get a general where it sits, because at the vice-president level here we see Gil Bennett, who was vice-president of the Lower Churchill Project?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

And so his direct report on the Lower Churchill Project, project director Paul Harrington. We just mentioned Mr. Harrington. And then here it says – the line underneath Mr. Harrington refers to some further org charts and that's where I'm going to go right now. We just see there's some other roles there.

Can we go to the next one at page 9, please, and that's where we'll find you, Mr. Kean, I believe. Make it a little bit smaller, please, Madam Clerk. Okay, great, I should be able to work with that.

So here on this chart we see Mr. Harrington on the top of the chart and then we see various other direct reports to him, one of them being Mr. Ron Power, who's the gentleman you just referred to as the project manager. And then you are here reporting under Ron Power as deputy project manager.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. So he – that's who you directly reported to; Mr. Power reported to Mr. Harrington, and Mr. Harrington reported to Mr. Bennett.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. And then, of course, Mr. Bennett would have reported up to Mr. Martin. So that shows where you are in the line. Okay. Thank you.

Mr. Kean, because you did – you're the first member of the project team to get on the stand, and because you did do a lot of work in developing the risk frameworks that were used by the project in the various documents, I'm going to ask you now to – to work with you to introduce some of those key documents to the Commissioner.

If we could please bring up P-00956, page 6, there's a graphic there.

THE COMMISSIONER: 00956 being –

MS. O'BRIEN: This is the Project Risk Management Plan.

THE COMMISSIONER: Tab?

MS. O'BRIEN: Tab 20, I'm sorry, Commissioner. Tab 20, and it's page 6.

And this is a graphic, I believe, Mr. Kean, that is it fair to say that this graphic sort of places the major risk documents in their hierarchy?

MR. KEAN: That is correct. It's part of the encompassing governance structure that we established for the Lower Churchill Project and provides that hierarchical relationship among key documents to provide that, I guess, a little bit of a parent-and-child-type concept in structuring management systems; leveraging standard approaches therein of how management systems would be structured.

So these – the four top elements: the Risk Policy, Project Risk Philosophy, the Project Execution Risk and Uncertainty Management Guidelines and Project Risk Management Plan, would be four physical documents, what we call revision control documents that would be prepared, reviewed, endorsed by various stakeholders within the team and would, effectively, set the way that we would manage and – manage aspects related to risk.

And this similar framework would exist for many different areas such as health and safety, quality, maybe construction.

MS. O'BRIEN: Sure.

MR. KEAN: So...

MS. O'BRIEN: Okay. So, I'm just gonna go through just these four documents at a fairly high level. I'm gonna ask you to just give a brief description of each one. They've all been entered as exhibits, I'm not gonna bring up each exhibit.

MR. KEAN: Sure.

MS. O'BRIEN: But I'm gonna identify for the purpose of the record where they've been filed.

So, the first one, at the top level there we see the Risk Policy, and that's been filed, Commissioner, as Exhibit P-00896. It is at tab 21 of your book. But can you just – it's a very short document – it's like a one-page document. Mr. Kean, can you just tell us, generally, what that document does?

MR. KEAN: It's a one-page policy statement, no – very similar to what you would have for health and safety policy statements; meant to be printed, posted on a wall, increase visibility about our approach to risk management in that risk management is a part of the way we conduct our business and that we need to openly embrace risk, understand it, and ensure we have practices to effectively manage it.

It would be signed by, I think, Vice-President Gilbert Bennett.

MS. O'BRIEN: The next level down is the Project Risk Philosophy. That is – been filed, Commissioner, at P-00897, and at tab 22 of your binder. Can you explain to us what the risk management philosophy is and how that differs from the policy?

MR. KEAN: Well, policy is fairly – it's quite high level and it's a bit motherhood, you might say.

In a philosophy, it really looks at the reversed elements and aspects of, now, the Lower

Churchill Project and recognizes that we have – the project is a multi-dimensional with multi-dimensional risk. And that it's important to recognize that risk can be managed in various ways, formats, and in doing so there are a number of stakeholders that need to be engaged in that risk management process as well as, you know, recognize that collectively there are a group of entities that will actually share these risk.

So, it really tries to bring that to light and establish that basic framework concept of how – you know, philosophically how we will approach the allocation of risk amongst the various stakeholders, you might say.

MS. O'BRIEN: And it may be helpful to look at the stakeholders.

Can we bring up that Exhibit P-00897, and go to page 8 please, Madam Clerk?

Okay, so here we see these are essentially who the stakeholders are – just to give us a sense. So, at this point, this was drafted at a time when this was Energy Corporation Newfoundland and Labrador, but essentially that's Nalcor, right?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay, so the lenders, contractors, the province, of course, insurance underwriters, Power Purchase Agreement counterparties, joint venture partners, which would include Emera, is that fair to say?

MR. KEAN: Yes. Now, as a point of note, at this point of time in 2008, of course, the focus was on Gull Island. No joint JV partners had been identified.

MS. O'BRIEN: Okay, but this is a – this document still stayed in effect throughout, is that fair to say?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay, because it was a high enough level, broad enough –

MR. KEAN: Yes.

MS. O'BRIEN: – that it could encompass the new – right, okay, so it just – sort of just shows how the risks are shared there. Thank you.

And then the next level down, if we can remember that pyramid we were just looking at, the third one down was Project Execution Risk and Uncertainty Management Guidelines. Those have been entered, Commissioner, as Exhibit P-01007, tab 23 of your binder.

Mr. Kean, could you just explain to us, again, at a high level, what these management guidelines are?

MR. KEAN: Sure. These – this document is not focused on roles and responsibilities, it's more focused on the mechanics and practices that one would endeavour to implement, you know? Preparing and establishing a project risk register, the process of identifying risk, the process of prioritizing risks through a qualitative risk scoring techniques and then the process of undertaking quantitative risk measurement that might led to eventually cost and schedule.

MS. O'BRIEN: Okay. So there's –

MR. KEAN: (Inaudible.)

MS. O'BRIEN: – actually a description in that document about Monte Carlo simulations –

MR. KEAN: It is.

MS. O'BRIEN: – and how QRA analyses go.

MR. KEAN: Yeah, that's correct. And that document probably predates the management plan by 18 months or a couple years.

MS. O'BRIEN: Okay. But still it was a document that stayed in effect throughout?

MR. KEAN: And –

MS. O'BRIEN: As a governing –

MR. KEAN: – remains valid, yes.

MS. O'BRIEN: Yes. Okay.

And then the fourth document is actually the one that we're in when I came to this pyramid is this

Project Risk Management Plan, and I'm gonna go through this one in a little – just a little bit more detail, but first, I'm just gonna ask you at the – you know, to begin with, at a high level, what's the Project Risk Management Plan do?

MR. KEAN: Well, the Project Risk Management Plan would mirror many of the management plans. It talks about the who, you know, the allocation and sharing of responsibilities within the organization; who has responsibility for various elements of risk management. You know, it identifies the division of responsibilities between Nalcor's EPCM consultant, Nalcor itself, and identifies, you know, the general structure of risk registers. For instance, we would have a risk register for environmental assessment. We may have one for the Strait of Belle Isle crossing and then there are some within the boundaries of the EPCM consultant, they would have a responsibility there.

It also talks about the process of who has the responsibility for preparing risk response plans, who has the responsibility for approving such plans, monitoring their implementation and so on. So it's a very much who was – who – and it follows a concept of an accountability matrix-type format.

MS. O'BRIEN: Okay.

I'm just gonna look at some of the definitions there, because this document does bring – does define a number of terms that we have heard already, of course, in the course of the evidence.

Page 6, please, Madam Clerk.

THE COMMISSIONER: What tab are we at now?

MS. O'BRIEN: This is still tab 20, Commissioner.

THE COMMISSIONER: Thank you.

MS. O'BRIEN: It's P8 – oh, sorry. P-00956, tab 20, page 6. I may not have the right page. Oh, yes, I do. They're just lower on the document.

Okay. So I'm not gonna get you to read out them, but I'm just gonna point them out for the benefit of the Commissioner, and then I'm gonna ask you, Mr. Kean, would these definitions generally have held throughout the project.

So we have Allowance, which is a term that we've heard. So that is identified as a cost added to the base estimate. Gives a little bit of experience, but I believe we had Mr. Lemay give some testimony to us on allowances in the base estimate.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And, of course, the Base Estimate, and we've had – that was the estimate – we're gonna get back to it, but that was the estimate at DG3 that, for components other than SOBI, was prepared initially by SNC-Lavalin?

MR. KEAN: SNC prepared approximately 70 per cent of the Base Estimate.

MS. O'BRIEN: Seventy per cent. Okay, great. Thank you.

Decisions Gates, which we've heard about.

We have Escalation, another term, and that's for changes in price levels over the course of the construction. Estimate contingency – a term that we've heard and will no doubt come back to. Key risks. I understand – is – we do have key risks defined here. I know at times you've used key risks interchangeably with strategic risks. Is that –?

MR. KEAN: Yeah, I have. Just for clarity, I guess. The risk taxonomy is – really refers to tactical and strategic. The aspect of key risk was basically high grading, a method of, you know, what is the cream of the crop – if you would – that we need, no –

MS. O'BRIEN: Most important.

MR. KEAN: – matter what the risks are – that we need to make sure there's good awareness of.

MS. O'BRIEN: Okay, all right. Management reserve is defined here, which we've heard a fair bit about already. Going down a little further we will see strategic risk – I think – coming up here. So again – and you're saying in terms of your – the way you divided risk was into tactical and strategic?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And of course we have strategic defined here and we have tactical defined here as well. We also have – I believe – the risk advisor identified on this plan. Wait, maybe not. Somewhere here. We understand there was a risk advisor for the project, and that was Westney Consulting Inc. Correct?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. Can you just give the Commissioner a little bit of an explanation on how Westney came to be the risk advisor on the project, and generally what that role meant?

MR. KEAN: Sure. Well, I guess a little bit of context. The project team recognized early that there were expertise that they would have internally and there would be third-party specialists they would need to engage.

In the case of risk management, we recognized that it would be prudent to have a third party engaged to provide specialist support in many areas of – let's say quantitative risk assessment or knowledge of some of the latest trends in industry – trends of concerns and challenges with megaproject delivery. Or things that might be of concern when we're – for a finance project in communicating risk exposure.

So in 2007 Newfoundland and Labrador Hydro issued a request for proposal following, I think – I should say following an expression of interest, a request for proposal was issued. From which, I believe, three respondents provided their proposals. And eventually Westney was selected as the risk management advisor through that RFP.

That occurred towards the end of 2007, and Westney initiated with a kickoff meeting, I believe in early January 2008. And the risk advisor – in a true sense of the word advisor, that, you know, it's scaled depending on the intensity and the level of activity, but you pull on them as you need. And that could be one persons, it could be five persons that you need to pull in on, underneath that umbrella scope.

MS. O'BRIEN: And I just want to go – if we could just go to page 11 of the document. And actually, the risk advisor's not mentioned in the definitions, it's actually mentioned in the next section on responsibilities – I just wanted to point that out. But I think here it, sort of – here, in this section of the project risk management plan it talks really about what Westney's role is.

MR. KEAN: Yes, and I point out those words there, "Acts as independent risk broker" in that, back to the risk philosophy, that we recognize there was a risk that were – very complex, multi-dimension that might need to be allocated to various parties. So Westney would be a glue to provide an unbiased approach of how to best bring that together and act – and provide some views and perspectives of how to best allocate or manage that risk.

MS. O'BRIEN: Okay.

So the definitions that we would – just went over, would those have held, essentially, throughout the life of the project?

MR. KEAN: Generally speaking, the definitions – there are some varied – variance with, you know, sometimes a little bit more descriptive. It's just because the time – duration that's lapsed here with the number of years but the general intention remains the same, yes, to my recollection.

MS. O'BRIEN: Okay, you don't –

MR. KEAN: And –

MS. O'BRIEN: – remember any time where a new definition was adopted – you know, there was a – purposefully a new definition adopted?

MR. KEAN: Well, we prepared a project dictionary for that very purpose, to ensure that if there was any confusions I – they were flagged so we would try to make sure they were – we would have one definition to the greatest degree possible.

MS. O'BRIEN: Understood.

With respect to these key definitions that I just reviewed, ones that are obviously of keen interest here at the Inquiry, do you recall any of those definitions, you know, being changed purposefully at mid-stream?

MR. KEAN: Not purposefully, I recall the definition of management reserve that I prepared at one point in time, you know, being a little bit more descriptive, talking about who may know the awareness and existence of management reserve. So I would refer you to the governance plan there for, you know, a fairly fulsome definition.

MS. O'BRIEN: Okay.

MR. KEAN: Project governance plan, I believe, maybe rev B1.

MS. O'BRIEN: And that's the more fulsome definition is it?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

Thank you.

Okay – so more fulsome, but not inconsistent?

MR. KEAN: Not inconsistent.

MS. O'BRIEN: Right.

Thank you.

Okay so – I want to introduce another series of documents now, Mr. Kean. In May 2018, I understand that you were one of a number of consultants who'd been hired to the project management team by Nalcor that gave a series of slide presentations to Grant Thornton, is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay.

Now, can you please advise the Commissioner, who were the other members of that group who participated in those presentations?

MR. KEAN: Certainly.

The members – I believe it's noted on the – slide deck 1 – it would have been Paul Harrington, the project director for the generation facility; Ronald Power – the general project manager; Lance Clarke, the commercial services manager; Scott O'Brien, the project manager for Muskrat Falls generation; and myself.

I participated in, I think, two-thirds of those sessions.

MS. O'BRIEN: Okay.

So, a number of those slideshows have been entered into evidence today, when I entered exhibits just prior to taking the stand. Some of the others will follow in phase 2.

I'm not gonna go through each one at all, but I just wanna – some of the slideshows that are entered into evidence actually show a date of June 2018, as opposed to May 2018 when they were presented to Grant Thornton. And I'm just going to present an explanation here for that and make sure you'd get – confirm that it's correct.

And so I understand you and that other group of consultants initially worked together to prepare those presentations for Grant Thornton, and you gave that presentation. Right?

MR. KEAN: I did not participate in the development of the presentation –

MS. O'BRIEN: Of the slideshows.

MR. KEAN: – but I did participate in the delivery of the presentations.

MS. O'BRIEN: Okay.

Had you reviewed the slideshows?

MR. KEAN: Yes, I had.

MS. O'BRIEN: And did you agree with their content?

MR. KEAN: Yes, I had.

MS. O'BRIEN: Okay.

And – but then there was – the intention was, from this group of consultants, that they would do a similar presentation to Mr. Learmonth and I as Commission counsel, and you were planning to do that in June of 2018. So you updated and refreshed the slide decks – minor differences, I understand, between the two. Is that fair to say?

MR. KEAN: That's my understanding, yes.

MS. O'BRIEN: Okay.

And – but ultimately, that presentation didn't take place, so you didn't present those slideshows to us.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

Okay, but we did get the slide decks, and they have all been entered in evidence, and I'm just gonna bring up one of them – P-01006, please. Tab 55, Commissioner.

And the reason – this was one that was an introductory slide deck, and I really wanna go to page 2 here, because there is a disclaimer here on this slide that – it, you know, it does speak for itself. But I just wanna confirm here that this is – that these slide decks were prepared by the consultants who presented them, and they are not necessarily the views of Nalcor Energy. Is that fair to say?

MR. KEAN: That's consistent with the disclaimer that's written.

MS. O'BRIEN: Okay, and the disclaimer's there. And so despite the fact they do – are branded all with Nalcor Energy, and you all did work on the project for Nalcor Energy, these are – this group of consultants really is – are the authors of these slide decks.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay, and in addition to the slide decks, I know that this group of consultants also prepared a series of papers and a timeline. And I'm going to bring up one of those. Can I bring up P-00264, please? Tab 14 of the book.

So there was a number of these papers prepared. One covered – there's two we're actually gonna spend a fair bit of time on today, because – and one of them is this one. This one covers the pre-sanction period, and there's another one that was done on sanction, and there was a couple that will have more relevance in phase 2.

But I want to make a few clarifying notes here, because this says – and all of the papers say on them: Briefing Note as Requested by Nalcor Legal Counsel McInnes-Cooper. And they're branded with Nalcor Energy, but I just want to clarify with you.

My understanding, having interviewed a number of people, is that when this Commission of Inquiry was called in November 2017, at that time, actually you were no longer working for the Lower Churchill Project, is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay, so you were actually doing consulting work through Westney at that time?

MR. KEAN: No, I wasn't working through Westney at the time.

MS. O'BRIEN: Oh, okay. You were just doing consulting?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

So – and as I understand it, Paul Harrington and some of the other consultants we just reviewed who are still working on the Lower Churchill Project, they wanted to have some background information put together. And they approached you to do some of this work or at least, you know, compile the information that eventually got turned into these papers. Is that a fair summary?

MR. KEAN: That is correct. They thought it would be prudent to ensure that as they saw things was represented.

MS. O'BRIEN: Okay.

And so you were actually hired as a consultant at that point, because you were no longer Lower Churchill Project. But you were hired; you were paid by essentially Nalcor Energy to put the material together to prepare these papers and the timeline?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And that was done at the request of Mr. Harrington, is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And so is it fair to say that you're – when we look at the timeline and the papers, that you are the primary author?

MR. KEAN: Yes, I am the primary author.

MS. O'BRIEN: Okay.

And did other consultants in that group we just referred to, did they have a chance to review and give input into the papers and the timeline as they were being developed?

MR. KEAN: Yes, others reviewed it. I can't confirm exactly the fullest extent, but I do know some of the individuals I had referenced earlier did review that.

MS. O'BRIEN: Okay, and to the best of your knowledge, information and belief, is the information presented in the papers, the timelines and the slide decks accurate?

MR. KEAN: Generally speaking. There are a few typos and so on –

MS. O'BRIEN: Yes.

MR. KEAN: – that I've noticed since.

MS. O'BRIEN: No, okay. But for the –

MR. KEAN: Context – content-wise –

MS. O'BRIEN: Yes. The information that's there.

MR. KEAN: Yes. That is correct.

MS. O'BRIEN: Yeah. Okay. And any of the consultant group that you were working with, did any of them advise you that they disagreed with any of the information that you were presenting in these documents?

MR. KEAN: No. I think, as I recall, I produced one large file that actually went to them. Some subdivision, a building of attachments, and there was some rewording and so on, so – but no, there was no debate or discussion of, you know, fears that things weren't, you know, consistent with their understanding, so …

MS. O'BRIEN: So no one told you they'd felt that these papers –

MR. KEAN: No.

MS. O'BRIEN: – were inaccurate in any way?

MR. KEAN: Not at all.

MS. O'BRIEN: Okay. And essentially you then presented as a group these papers and the timeline to Grant Thornton as well? And to the Commission.

MR. KEAN: I don't know if Grant Thornton has these papers today to be honest.

MS. O'BRIEN: Okay.

MR. KEAN: I –

MS. O'BRIEN: They were presented to us here at the Commission at the very least.

MR. KEAN: Yes. That's my understanding.

MS. O'BRIEN: Okay. Okay.

I'm going to bring up the timeline now, P-00862. And Commissioner, we can –

THE COMMISSIONER: Tab 4?

MS. O'BRIEN: Yes. Thank you. I'm just going to – a couple of questions here on this one, and then we can take the morning break.

This is the timeline. It's a very, you know, it's a very comprehensive document, and I'm not going to go through it in any detail, but we may come back to a few events later on. But I just – right now – in terms of people reading it and understanding it, one of the columns – I mean all the columns here make – they're self-evident. But there's one column called Triggering Event and sometimes it's yes and sometimes it's no.

What – when you referred to something as a triggering event, what does that mean?

MR. KEAN: Sure. These papers are written in the context of a project-close-out report, which I've written in the past, and in doing so, you know, you're looking backward. So one of the objectives was to try to provide context and clarity as to why cost may have increased, you know, back to why this Commission exists.

So in looking through the timeline I added a column to say: Would that event have been relevant at all to the cost setting or the final cost estimate for the project? And that's, you know, in that regard, is it a trigger – do I believe right now it could be a triggering event?

And you know, those are a – you know, that reflects, I think, my thought on that at this point in time, and it didn't – we didn't go through a deep, you know, interdisciplinary check to validate that, but that's the intention. Was it a triggering event that it may have influenced the overall cost – out-term cost that we're seeing today?

MS. O'BRIEN: Cost or schedule.

MR. KEAN: Cost or schedule. Yes.

MS. O'BRIEN: Okay. All right.

Now, one little – one item I just want to quickly confirm, because you here have February 2007 as the Decision Gate 1 milestone. So we've heard lots of talk about DG2 and DG3, very little about DG1. But – and I know we – I'm anticipating we may have some different testimony on what – when DG1 occurred, but I just want to confirm, how did you pick that number of February 2007?

MR. KEAN: I wasn't there at DG1. It's a date I thought – I must've removed from our overarching contracting strategy or one of the other premise-level documents that the project has. I didn't have any documentation reference to state that.

MS. O'BRIEN: Okay.

MR. KEAN: It may have also came from a project monthly report from that early period. That –

MS. O'BRIEN: Okay.

MR. KEAN: – would've stated that, but I would suggest others could confirm that.

MS. O'BRIEN: Okay, thank you.

Commissioner, that's probably a good time to take our morning break.

THE COMMISSIONER: All right, let's take 10 minutes here, then.

MS. O'BRIEN: Thank you.

CLERK: All rise.

Recess

CLERK: All rise.

Please be seated.

THE COMMISSIONER: All right, Ms. O'Brien, when you're ready.

MS. O'BRIEN: Thank you.

In the timeline that you prepared that we were looking at just before the break, Mr. Kean, there is reference to a Decision Gate 2A. And so we have heard lots of evidence on Decision Gate 2, we've heard lots on Decision Gate 3, we just touched on Decision Gate 1 before we took the break, but really I don't believe the Commissioner has heard much on Decision Gate 2A.

And in an effort to, you know, move through the evidence quickly, efficiently, I'm going to put some material to you and just get you to confirm whether it's right, and I really just want you to confirm it, if it is accurate to your understanding. But my understanding – my belief is that this is not controversial evidence in any way because – so in 2008 is when we are talking about Decision Gate 2A, and at that point Gull Island first was the configuration of the project. Is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And, as I understand it, there was – I know there was a number of people working on the project at that time but we could just generally divide them into two groups. One group that was primarily working on doing engineering, front-end engineering, capital cost estimating. And then a second group that was working on financing, getting the export markets in place and those types of activities. Is that fair to say?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And at a certain point, you would've been involved in the first group, doing the engineering cost estimating?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And that group actually got to a point where they were able to put together a decision support package for the project covering the elements that they were working on.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. But at that point, the groups that were working on getting it through environmental assessment, figuring out the financing, looking at the, you know, the export markets, you know, getting the Régie application and such, that was not yet to a point that they could take that information and put it into a decision support package to promote it going through Gate 2?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

So rather than wait for that group to catch up, there was a number of months sort of in between one group being ready and the next ones anticipated being ready. So the first group actually did prepare a decision support package for Gull Island first on the engineering and costing such and that was decision support package Decision Gate 2A.

MR. KEAN: Yes, which we were calling it a readiness checkpoint for early phase 3 activities – Gateway phase 3 activities.

MS. O'BRIEN: Okay. And so the idea being at the time, I guess, once the other team was ready, there'd be a decision support package 2B. And then those packages would go together to the Gatekeeper to get his approval to move through the Gate.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. So we do have in the records a decision support package for Gate 2A, but the support package for Gate 2B didn't come into existence because prior to them being ready, I believe, the Régie decision came down in Quebec – we've heard evidence on that – and the project moved, transitioned to a Muskrat Falls first project.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And so that Decision Gate 2B, I think we'll see in the documents and in your timeline, it's identified as July 2008, so I just wanted to confirm what that was. And so that's when DG2A happened, that was a Gull Island first scenario. DG2B never did happen and then, ultimately, the next Gate we reached was Decision Gate 2 for the Muskrat Falls first. Have I got that accurately?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. Thank you.

Could we bring up the timeline again at P-00862 and can we go to page 2, please. Sorry, page 4, Madam Clerk. Okay.

So I want to look at this. So this is really, in this – just prior to looking at this – the Decision Gate 2A, but there is – I want to look at this note that you've written here with respect to June 10 of 2008. And it says: Pre-Decision Gate 2 Cost Estimate: Presentation of revised cost estimates for Gull Island plus an infeed – a much larger infeed – Link to Lingan: 6.9 billion. "More importantly this presentation included an extensive discussion surrounding the definition of contingency and management reserve, providing recommendations for each. In the case of the earlier contingency set at the P50 level, with Management Reserve = P75 + Strategic … Reserve. Project team is directed to undertake via value-engineering in order to find cost savings opportunities."

And then over here, you have identified this as a triggering event. And in the comments you've written: Tone setting - aggressiveness.

So, you were referring to a presentation there in that note, and I'm going to bring that up, that actual presentation up because it may assist you in your answer. And that's P-00901, tab 32. And is that the presentation you were referring to on that date in the timeline?

MR. KEAN: It appears to be, yes.

MS. O'BRIEN: Okay. So who were you – who was – who – were you making this presentation?

MR. KEAN: Yes, I would have been the principal architect of the slide pack.

MS. O'BRIEN: Okay. And who primarily were you presenting to?

MR. KEAN: It would have been a group comprised of, you know, my project director and probably some of my key team members, some of Paul's key reports and a couple of members of the Nalcor executive and probably Gilbert Bennett, Ed Martin.

MS. O'BRIEN: Ed Martin – would that be – I just noted 'cause it says to the Gatekeeper.

MR. KEAN: Yes, of course.

MS. O'BRIEN: Okay. So Mr. Martin and Mr. Bennett would have been there.

MR. KEAN: Yes, usually a group.

MS. O'BRIEN: Okay, great.

So I'm just gonna bring up P – page 20, please? Because I think it refers to at least some of what you were talking about in that note on the timeline. So there's the slide here.

So we see a Base Estimate plus an amount for P50 Contingency (Tactical Risk) plus two further amounts: P75 Mitigated Financial Exposure, and there's some notes there.

So can you start off by telling us, you know, why – what you meant when you put it in the timeline, why you considered it important and what this recommended total capital cost involving all those elements was?

MR. KEAN: Well, I guess, the first question you asked about why put it in the timeline, the timeline reflects pretty much all presentations that would have been given upwards to the Gatekeeper. So, in that regard, that's potentially why it's placed in the timeline.

The aspect of tone setting aggressiveness; as I indicated, these documents were prepared in retrospect, looking backwards. And as I looked, you know, looking back we, you know – Nalcor's made their statement, their position, very clear, I know, in response to the EY review of 2015 of, you know, their treatment of contingency – of their approach of not giving the project team an extra amount of contingency, working with – keeping people's feet to the fire, you might say.

So, you know, in that regard, it – we were – at that point in time, it was identified that the project cost was – it had increased quite a bit from the earlier studies I think that had been done in 2006, and we were presenting an updated estimate that had been done from first principles, as well as supported by the results of our first quantitative risk exposure.

We were – you know, the focus became demonstrating and providing confidence that the information that we were presenting was – had been checked and had – was fully integrated within the Nalcor – Newfoundland and Labrador Hydro organization. So it included things like all of the Island system upgrades and so on.

So a lot of focus to make sure we haven't double-dipped, we haven't gone away and included things that we shouldn't of, so that was the push on the value engineering, as well as to identify were there any low-hanging fruit that might be out there. So –

MS. O'BRIEN: And in that context, what do you mean by low-hanging fruit?

MR. KEAN: Sure.

Were there things that, you know, the estimate was overly conservative? Was it a reasonable price base? You know, did we include allowances or extra conservatism in the base estimate in terms of, you know, contingencies or so on, to make sure it was fully, holistically, brought together as an overall cost estimate?

MS. O'BRIEN: So this was your recommendation to the Gatekeeper at this time – I mean, I recognize it was Gull Island first.

MR. KEAN: This was our first presentation of cost in general, as I recall.

MS. O'BRIEN: Okay.

MR. KEAN: And the first time we had completed a full risk analysis, yes.

MS. O'BRIEN: And was that with Westney?

MR. KEAN: Yes, it was.

MS. O'BRIEN: And so it was a full quantitative risk analysis as we've come to understand that term?

MR. KEAN: Yes, and as I indicated, Westney had joined the team in January – had been selected and mobilized as our advisor, so six months had passed. Up to this point in time we had spent a lot of time focused around the risk identification and framing the strategic risk that might provide exposure – that we needed to focus our attention on.

MS. O'BRIEN: Okay. So, here – when it says recommended – so that would've been a recommendation coming from you? Or from the project team generally?

MR. KEAN: That would've been coming from the project team. So, at this – context-wise, we're focused on Gull Island. The –

MS. O'BRIEN: Yeah.

MR. KEAN: – intention is to demonstrate and provide input so power could be priced at an appropriate level. So the cost that was presented included both the estimate contingency and some thoughts and recommendations regarding an appropriate reserve beyond that.

MS. O'BRIEN: Right. But at this point, you're total recommended capital cost is here. It's just over – it's almost 8.5 billion at this point.

MR. KEAN: Yes.

MS. O'BRIEN: So that is made up to get to the 8.5 billion this was what your recommendation was. A base estimate of just about 7 billion. Then add on just about 400 million to bring it up to a – which would represent tactical risk – to bring that tactical risk contingency up to a P50 level.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

And then in addition to that, you were – whoops – you – sorry about that, I don't know what – there we go. In – when I move my mouse, it's very tricky.

In addition to that, we have – you were recommending another 746 million and another 407 million. So now we're up over another – well over another billion dollars, additionally. And that was to bring it up to a P75, and would that be for strategic risk and tactical risk?

MR. KEAN: That would have been the total cost risk curve, if you would, which would be a blend of both.

MS. O'BRIEN: So strategic and tactical? So you –

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

So at this point, your recommendation – the project team's recommendation to the Gatekeeper and Gil Bennett was that the capital cost would include all amounts needed – strategic, tactical – to bring the total cost up to a P75 level, is that right?

MR. KEAN: That's correct at this –

MS. O'BRIEN: Okay.

MR. KEAN: – point, yes.

MS. O'BRIEN: All right.

And so now at the – you have said – we know, ultimately, this didn't – this recommendation didn't carry on forward. But just – can I ask you again, you highlighted this meeting in your timeline as tone setting aggressiveness. Can you just explain to me again what – you know, who was being aggressive? Who was setting an aggressive tone?

MR. KEAN: I guess the aspect, I think I indicated in the past, is that, you know, the push to make sure we're fully integrated as an organization. We seek out all opportunities and so on. And that, you know, you need to make sure – I guess the message came back when you come forward, make sure it's a good number, it's well integrated, the various functions underneath the organization have been engaged, they are aware of what the information is and that it's fully inclusive of everything.

So in that regard, you know, very much a push to make sure you got everything thought through and everyone engaged to validate that these are the right numbers.

MS. O'BRIEN: Wouldn't you have done that anyway?

MR. KEAN: Yes, to a degree; however, at those early days we were still in the phases of building linkages with, let's say, some of the supporting groups within Newfoundland and Labrador Hydro and CF(L)Co from those interfaces and so on.

MS. O'BRIEN: Okay.

Was the Gatekeeper surprised at the large number that was being presented to him?

MR. KEAN: I think the cost – while I can't recall what the cost was for the last update which was prepared in 2006, I got the sense that yes, the number was, I think for everyone, a bit large. And part of it was driven by – our first risk analysis identified up to 2.5 billion of unmitigated risk exposure – and that really then led and comprised our work plan for the next number of years of how we could respond to that and reduce that exposure.

MS. O'BRIEN: Okay, thank you.

I'm gonna take you – so this was, I think we said June 2008. I'm gonna take you forward in time – could we go to P-00206, please?

THE COMMISSIONER: Tab …?

MS. O'BRIEN: I'm sorry; it's not in your book, Mr. Commissioner.

THE COMMISSIONER: Okay.

MS. O'BRIEN: It is an exhibit we have seen before. It is a Lower Churchill update, April 23, 2010. And can we go to page 17, Madam Clerk, please? We've all seen this page before.

Mr. Kean, are you generally familiar with this slide deck?

MR. KEAN: No.

MS. O'BRIEN: Okay, do you have – are you familiar with the information on this slide deck?

MR. KEAN: I wouldn't have been familiar with all these assumptions for the economic analysis as, you know, me and my team we focused on the capital cost, the operating cost and the schedule only.

MS. O'BRIEN: Okay.

So April 2010, this says – this slide deck, when we look at it in total, it's presenting a number of different scenarios – configurations for the project. Have you looked at this document ever before?

MR. KEAN: I did see this on your exhibit list – yes, I did.

MS. O'BRIEN: Okay.

MR. KEAN: But I don't know the details of what's in it.

MS. O'BRIEN: Okay, but you reviewed it?

MR. KEAN: I'm aware of what the scenarios that we were looking at for instance, from a development back then.

MS. O'BRIEN: Okay, and here it says: Scenario Economics - Key Assumptions. And: "General Assumptions for all cases: P75 capital cost estimates."

Do you have any recollection of a P75 being used for capital cost estimates when comparing the scenarios in – at least this period of time in 2010?

MR. KEAN: Yes, after June 2008, we – the presentation that, you know, we really focused on updating our capital, updating and focused on our risk plan – risk work plan, I should say. And in the winter of 2010, the project team was asked to provide cost of estimates for various development scenarios, and those were all to be on a P75 or stress case, you know, that's whether – a P75 cost on a P50 schedule is what I recall.

MS. O'BRIEN: And –

MR. KEAN: So that the flow would look – the cash flow would basically include the P75 cost as reflected on a P50 schedule outcome.

MS. O'BRIEN: Okay. So at least, to your knowledge up until the winter of 2010 that P75 on cost was what was being used to evaluate various scenarios.

MR. KEAN: To be honest, I don't recall giving a cash flow prior to that time, for any, you know, any economic modelling that would have occurred.

MS. O'BRIEN: Sorry. My question was do you recall giving – being told to give a P75 confidence level number?

MR. KEAN: Maybe – could you just repeat the –?

MS. O'BRIEN: Yeah. Do you recall being asked to give a P75 confidence level in your estimate?

MR. KEAN: In the winter of 2010, yes.

MS. O'BRIEN: Yes. Okay.

Now, we know in June of 2008 your recommendation – the project team's recommendation for Gull Island was that the capital cost be at a P75, and we see here that, at least in April of 2010, Nalcor was still working with P75. Did your team make a recommendation for Muskrat Falls first when that scenario was chosen – what the appropriate P-factor should be?

MR. KEAN: No, we didn't make a recommendation in the context. I've always recommended the estimate contingency to be set up P50. The – we were working with P75 all-in cost, and I recall that being validated by Westney during their June, July 2010 risk analysis. They presented a viewpoint on a P75 for setting management reserves.

MS. O'BRIEN: Okay. But no – my question was – we saw the project management team made a recommendation to the Gatekeeper in June 28 for a capital cost estimate based on a P75 for strategic and tactical risk. We just went over that a couple of minutes ago, right?

MR. KEAN: Yes.

MS. O'BRIEN: Did the project team make a recommendation to the Gatekeeper for the Muskrat Falls first scenario?

MR. KEAN: There were no further recommendations that I recall on any P-values.

MS. O'BRIEN: Okay.

MR. KEAN: And to be honest, I think I even put in volume 1 of the binders – the pre-sanction – there was no clarity and – you know, as to what P-level things – management reserve would ever be set at. We were providing input, but I guess the feedback didn't come back to say this is what we're using or not.

MS. O'BRIEN: So you made a recommendation in 2008, but you didn't make any other recommendation in 2010 or afterwards when we were dealing –

MR. KEAN: That's –

MS. O'BRIEN: – with Muskrat Falls?

MR. KEAN: That's correct. The first capital cash – cost flow – or cash flow that was given for Muskrat Falls was given in about the July, August time frame of 2010 as I recall.

MS. O'BRIEN: Okay.

P-00955 please. Tab 3 of your book, Mr. Kean.

CLERK: 00955?

MS. O'BRIEN: Yes, 00955, tab 3.

This is a letter that we've recently received here at the Commission from Richard Westney of Westney Consulting Inc. He clarified some information following from his interview. He will later be called as a witness.

Can we please go to page 3?

He writes there: "As you know from my interview, I did acknowledge that it might well be appropriate to fund a public mega-project, such as LCP, at a P factor greater than 50. My discussions with the Westney team also confirmed that, during discussions with Nalcor, our view was that a P factor of at least P75 would be appropriate, as would a funding strategy for strategic risks. Our discussions of schedule risk were similar."

Did you, Mr. Kean, participate in these discussions with Mr. Westney or people from Westney Consulting Inc. working on Mr. Westney's team?

MR. KEAN: I had several – a multitude of discussions with that team over the years, yes.

MS. O'BRIEN: Okay.

No, I'm not asking about generally discussions over the years. I'm asking about the discussions that Mr. Westney is pointing to here, where he says that his view, that Westney Consulting's "view was that a P factor of at least P75 would be appropriate, as would a funding strategy for strategic risks. Our discussions of schedule risk were similar." That discussion.

MR. KEAN: I don't recall that discussion; however, as I indicated, the June-July QRA report – June, July of 2010 QRA report that fed into the Decision Gate 2 analysis, does include Westney's view of management reserve setting at a P75 for strategic risk, as I – which was aligned with that point in time with the cash flows that the project team were providing to the Investment Evaluation team of Nalcor.

So there's no conflict at that point in time.

MS. O'BRIEN: So you don't have any reason to believe what Mr. Westney is saying in this letter is inaccurate?

MR. KEAN: I don't have any reason to believe, no. I just don't recall those particular discussions.

MS. O'BRIEN: Okay.

So do you have an explanation for why the project management team would have made a recommendation to the Gatekeeper in June of 2008 for a P75 capital cost for Gull Island and not have made a recommendation by the time it got to the Muskrat Falls first scenario?

MR. KEAN: Well, during 2010 there were a tremendous amount of scenarios being investigated for development of the Lower Churchill River, both Gull Island and Muskrat concurrently. We were providing quite a few different cash flows, and that included some just domestic activity in Labrador, some, you know, just – various scenarios, to be quite honest with you. You know, I think about 18 different development scenarios.

Those were provided in various formats, the various development timelines. Sometimes Muskrat first, sometimes Gull Island first and so on. And we were providing all that information on a P75 basis. Up until August of 2010, we were requested to provide cash flows on a P50 basis.

And –

MS. O'BRIEN: Who requested in August of –

MR. KEAN: Well –

MS. O'BRIEN: – 2010 that you switch to a P50?

MR. KEAN: Well, back to – quite simply, Nalcor Investment Evaluation was – our – the project services team, my teams, interfaced to the economic modelling process. We provided cash flows and cost flows to that.

I don't recall who, but – how that transpired – but it was – it must have been requested, otherwise it wouldn't have been given, I guess.

MS. O'BRIEN: So you don't recall who told you to start using a P50 –

MR. KEAN: No, I don't.

MS. O'BRIEN: – but you recall that you got that instruction?

MR. KEAN: I'm – we must have gotten it, otherwise we wouldn't have used P50.

MS. O'BRIEN: Okay, so you don't even remember getting an instruction. You just know that you switched –

MR. KEAN: That's right.

MS. O'BRIEN: – from P75 to P50?

MR. KEAN: That's correct.

MS. O'BRIEN: And you stopped using – stopped – you started not including strategic risk in your base. Is that –

MR. KEAN: No.

MS. O'BRIEN: – right?

MR. KEAN: No, everything included strategic risk at that point in time. It was just –

MS. O'BRIEN: So you're –

MR. KEAN: – a –

MS. O'BRIEN: – still using –

MR. KEAN: It was –

MS. O'BRIEN: – P50 with strategic risk?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay, sorry.

All right. So at that time, August 2010, you're – I just wanna make sure your evidence is clear, 'cause there's gonna be other people –

MR. KEAN: So on –

MS. O'BRIEN: – coming –

MR. KEAN: – August 13, 2010 –

MS. O'BRIEN: Yes.

MR. KEAN: – the capital cost flows for development scenario, which is known as case 11 OL – OL referring to overload protection –

MS. O'BRIEN: Mm-hmm.

MR. KEAN: – was provided for Muskrat Falls – the current Muskrat Falls facility that we have today. That was provided by one of my team members through to the – his liaison point in Nalcor Investment Evaluation.

MS. O'BRIEN: And who is that?

MR. KEAN: That – within the project services team, my – or my – I guess my team would have been a gentleman by the name of Dave Pardy.

MS. O'BRIEN: Mm-hmm.

MR. KEAN: And the working interface was with a gentleman by the name of Steve Goudie.

MS. O'BRIEN: Okay.

MR. KEAN: And those interfaces had existed for quite some time – a lot of the information.

And it really goes back to my role description there. If you see, one of the things was to establish that – those working interfaces with the Investment Evaluation team for economic modelling was a specific obligation of mine.

MS. O'BRIEN: Okay.

So, just to be clear, what you can say is you know in August – on August 13, 2010, a member of your team provided – specifically Dave Pardy – provided a member of the investment evaluation team – specifically Steve Goudie – with a P50 confidence number for the capital cost estimate for the Muskrat Falls scenario.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. But you know that was a change, 'cause up until then you'd been working at P75.

MR. KEAN: Yes.

MS. O'BRIEN: So you know that change happened on that date, but you don't know – you know it happened so your assumption is: someone must have told us to do it –

MR. KEAN: That's correct.

MS. O'BRIEN: – 'cause it's – you're – are you saying it's not something that you or your team would have – a change you would have made on your own initiative?

MR. KEAN: No, because all the other numbers were at a higher level prior to that so, you know, I can't – I can't recall as to why we would've done that.

Now, I do acknowledge that at that point in time we were switching to a Muskrat Falls first – it seemed to be gaining more traction and that was more focused on a CPW analysis, for instance, on an Isolated versus Interconnected.

MS. O'BRIEN: No, but I'm just trying to clarify here, Mr. Kean –

MR. KEAN: Sure.

MS. O'BRIEN: – who gave – you know, to the best of your memory, who gave –

MR. KEAN: I –

MS. O'BRIEN: – that instruction?

MR. KEAN: I just don't –

MS. O'BRIEN: So you don't –

MR. KEAN: – recall.

MS. O'BRIEN: – know. But you know that it happened at that time.

MR. KEAN: Yes.

MS. O'BRIEN: And – are you saying that that – you know, is it possible that you and your team made the decision to do that yourselves?

MR. KEAN: Doubtful.

MS. O'BRIEN: Okay. Why are you doubtful?

MR. KEAN: Well, because our approach to date had been providing from a total, you know, providing a viewpoint of what the total strategic risk exposure might be that could be used in those analyses. So, up to that point, everything had been done on a P75 basis. So I just don't – you know, I struggle –

MS. O'BRIEN: Would you have considered it within your – you know, as part of your responsibilities or your duties – or the authority you had in Nalcor – would you have considered that you would've had the authority to make that decision?

MR. KEAN: No, that wouldn't have been in my authority level. You know, from a perspective of, you know, there are – in organizations we're providers of information. We make decisions on things – maybe labour rates to go in estimates, or productivity rates, and so on – would be areas where I have decisions – you know, we would be providing that information for others to make a decision at the end of the day.

MS. O'BRIEN: So is it fair to say if you didn't have – you didn't have authority to make that decision, is –

MR. KEAN: No, I didn't.

MS. O'BRIEN: Okay. Do you ever recall acting outside your authority while you were doing work with Nalcor?

MR. KEAN: I don't recall.

MS. O'BRIEN: Okay. Something that might stand out in your mind –

MR. KEAN: No.

MS. O'BRIEN: – if you knew you were working –

MR. KEAN: We had –

MS. O'BRIEN: – outside your level of authority.

MR. KEAN: I put a lot of effort, personally, into establishing authority matrices and so on, and as well as our financial authority system. So we were pretty rigid about those things. So I – you know, as well as softer decision-making authority. That's part of the reason the project governance plan existed –

MS. O'BRIEN: Okay.

MR. KEAN: – was to ensure there was clarity in those areas.

MS. O'BRIEN: So then can we assume from that that, you know, is the most reasonable assumption here – and I'm not trying to put words in your mouth 'cause if you think there's another more reasonable one, please say it – that someone with a higher authority than you would have given you that instruction?

MR. KEAN: That's all – and it may have not come to me directly, it might have came to Mr. Pardy, in that regard. Because quite a lot of times the interface came from investment evaluation back to Mr. Pardy. Because, you know, just for efficiency –

MS. O'BRIEN: Who did Mr. Pardy report to?

MR. KEAN: He reported to me, yes.

MS. O'BRIEN: Okay.

MR. KEAN: You know, maybe give us a scenario of this: can you switch this cash flow, move it out a year or two?

MS. O'BRIEN: Okay.

MR. KEAN: Things of that nature.

MS. O'BRIEN: All right.

So at that time still there was strategic risk included as – in the estimate?

MR. KEAN: In the cash flow – it wasn't in the estimate it was in the overall cost projection for the project that was provided.

MS. O'BRIEN: Yes.

MR. KEAN: I differentiate because, you know, estimate and an estimate contingency, so. It's in part of that overall cost flow that was provided and there was a provision for – of 6 per cent of base estimate for strategic risk exposure.

MS. O'BRIEN: That was in there?

MR. KEAN: Yes it was.

MS. O'BRIEN: All right.

We're gonna move now to – I'm gonna ask Madam Clerk to bring up Exhibit P-00808. I don't believe it is in your documents – your binders. It's a very large document and we have seen it before.

So I'm just gonna go generally first. This is a project risk analysis document and, Mr. Kean, we've seen this document before here in this hearing room – a couple of versions of it. We also have in evidence a similar document that was done for Decision Gate 3. So this project risk analysis document.

At a high – first of all, were you the primary author of this document?

MR. KEAN: Yes, I was.

MS. O'BRIEN: And similar for the one at Decision Gate 3?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And just generally first, can you please explain to the Commissioner what the purpose of these documents were at the Gates.

MR. KEAN: Sure.

The objective of this document – or purpose – was to consolidate the basis upon which a quantitative risk assessment had been done. It represents a static point in time of whereby all of the information has been consolidated, evaluated and used to generate a view on cost and schedule outlook. And the document is meant to provide a summary up front that's typically Nalcor's interpretation of the information and the work that's been done.

It would append things like the risk register, the work that may be done by Westney as our advisor, who would be undertaking the actual Monte Carlo modelling. And in that regard it would summarize with the recommendations regarding contingency and reserve for instance. A viewpoint on strategic risk and estimate contingency.

MS. O'BRIEN: Okay, thank you. Now this document is done for Decision Gate 2, yet when we look down here – and it's signed by you and it's signed by Mr. Harrington – would Mr. Harrington have been required to sign off on these documents?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And it says intended for use. The date on it though is June 16, 2011. Now we know Decision Gate 2 was in – at the end of 2010. This document is obviously dated, you know, approximately six months or so later. Do you know why that is the case?

MR. KEAN: Yes, I do.

So the supporting underlying analysis that are – is appended to the – here is pre-dated to DG2. The final document didn't get prepared until after DG2 just from a perspective of capacity. Prior to this I had a full-time risk manager on the project and he had left. So we were in the process of recruiting another. And it was left to me to prepare, and I just deferred it until I had some time, which eventually got pulled together for June, 2011.

MS. O'BRIEN: Okay. So it's just – you –

MR. KEAN: It's a capacity –

MS. O'BRIEN: – had a lot on your desk.

MR. KEAN: It's a personal capacity issue.

MS. O'BRIEN: Okay.

Can we go to page 26? And this is also – this – what this – note on page that we're going to be looking at here; we've seen it before in the hearing room. It's also summarized in your timeline and it's in your pre-sanction paper that we referred to earlier. And so this is – presents the summary of estimate contingency 15 per cent, strategic risk exposure 6 per cent, full power date June, 2017.

There's a note, "It must be emphasized that these parameters were for Decision Gate 2 decision making purposes only, and prior to Project Sanction must be thoroughly reviewed and reassessed for suitability considering the design maturity of the Project as well as Nalcor's risk appetite."

"Note: During the negotiations of the Term Sheet with Emera, Senior Management elected to drop the Strategic Risk Exposure allowance of 6% from the overall capital cost recommendations for both the Muskrat Falls and Labrador – Island Transmission Link Projects in order to address Emera's concern regarding its ability to sell the Strategic Risk concept to it's the Nova Scotia regulator, the Nova Scotia…" UARB.

So we've reviewed that note before. Where did you get this information? You wrote that I take it?

MR. KEAN: I wrote these words, yes.

MS. O'BRIEN: Okay. So where did you get the information there?

MR. KEAN: So what I understand – since my discovery interview, I went back to look at my records to understand where things have come from, and as I recall, we were asked to reduce, from 21 to 15 per cent, the overall risk exposure provision that was in the capital cost flow. We were asked for that on the 28th of October, 2010, and that request came from Investment Evaluation.

At that point in time, it came to one of my colleagues. We really didn't pay much attention, 'cause we were providing so many different scenarios; however, sometime thereafter, I understood that those were the final numbers that I guess were used to comprise the $5 billion that, I guess, was the DG2 basis. And I came to learn that the 6 per cent had been – you know, that 6 per cent that we had provided the adjusted cash flow on, you know, did come out of those discussions and ways to actually, I guess, reach a business arrangement, is what I understood.

I wasn't part of the negotiations. I was focused on EPCM contract at that point in time, readiness. So I, you know, I – and I think I clarified that I – the concept of being able to sell it to the regulator, I'm unable to find the basis for that; however, I wrote it at this point in time, so I must have understood it to be correct.

MS. O'BRIEN: Okay.

MR. KEAN: But I have no emails or anything to say it was as a result of blank. I didn't – I have no formal communication, but I wrote it, so I must have understood to be accurate at the point in time, or I wouldn't have written it, I guess. But others could provide more colour and context around that, I guess.

MS. O'BRIEN: Okay.

And you're very specific though. You can that you were first – you're – you say we were asked.

MR. KEAN: (Inaudible.)

MS. O'BRIEN: So who's we?

MR. KEAN: That would've been Dave Pardy and myself.

MS. O'BRIEN: Okay. So –

MR. KEAN: He was – Dave was my right hand.

MS. O'BRIEN: Okay.

MR. KEAN: (Inaudible.)

MS. O'BRIEN: So you were asked to reduce the contingency amount from 21 per cent, which included tactical and strategic, right, at that point?

MR. KEAN: Yes. It was a P50 proxy for tactical and strategic.

MS. O'BRIEN: Both. Okay. To 15 per cent?

MR. KEAN: Yes.

MS. O'BRIEN: Which would've been tactical only, no strategic?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And who asked you to do that?

MR. KEAN: Oh, that would've been Steve Goudie from Investment – Nalcor Investment Evaluation. Back to the linkage again, that was the full linkage between the project team, and the – any economic modelling would flow through there.

MS. O'BRIEN: Okay.

And this was happening October 2010. Do you know what was going on at that period of time in relation to negotiations with Emera?

MR. KEAN: My recollection was that various aspects of negotiation of the term sheet, I guess.

MS. O'BRIEN: Pardon?

MR. KEAN: Negotiation of a term sheet with Emera.

MS. O'BRIEN: That's what was going on at that time, to the best of your knowledge?

MR. KEAN: To the best of my knowledge, yes.

MS. O'BRIEN: Okay, and so you recall – you say that afterwards you were told that – you learned that ultimately that 6 per cent came out permanently when the DG2 capital cost estimate of 5 billion was put forward. Is that correct?

MR. KEAN: The 5 billion doesn't include the 6 per cent, from my math, in that regard.

MS. O'BRIEN: Okay, and when you wrote this note here regarding Emera, you don't recall who specifically told you that it had to do with a concern from the – about the UARB?

MR. KEAN: No, I don't. I thought it might have been Mr. Bennett, but I don't think it was. I just –

MS. O'BRIEN: You don't know.

MR. KEAN: I can't confirm.

MS. O'BRIEN: Is it fair to say somebody would've had to –

MR. KEAN: Oh, someone –

MS. O'BRIEN: – give you that information?

MR. KEAN: Someone would've provided me that guidance, or insight, I guess.

MS. O'BRIEN: And it would've been someone from Nalcor? Pardon?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, and I take it must've been someone who you believe was giving you credible information because you included it in the document?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

All right, and it is when you – when I first interviewed you, you did say in the interview you thought it was Gil Bennett, but I understand you're not – you're no longer sure of that. You just don't have an exact memory, is that fair?

MR. KEAN: That is correct. I went back and checked my notes –

MS. O'BRIEN: Okay.

MR. KEAN: – and emails, I could find no reference to that for certain. So I just wish to clarify that.

MS. O'BRIEN: Okay, can we bring up P-00097?

Now, we looked at the front – first page of this document a few minutes ago and it did say it was: "Issued for Use," but here at P-00097 we actually – there was a subsequent version of this document done. And I know you'll be aware of that, and – here we go. So that one was issued for use on June 16, 2011, but then there's a B2 version issued September 15, 2011. And again, the last one was signed by you and Mr. Harrington; and again, this one is signed by you and Mr. Harrington.

And can we just go to page 26, please, Madam Clerk? So here we see the similar information that we were looking at a few minutes ago, but now the 6 per cent is gone – it says: "Nil." And there's no note there with respect to Emera. So two significant changes; why were those changes made?

MR. KEAN: So in the winter of 2011, of course the Muskrat Falls review was underway by the Public Utilities Board. And in that August of 2011, Nalcor issued its view on strategic risk underneath confidential exhibit 52. And that really – Nalcor's view was that strategic risk exposure transcend both the Interconnected and the Isolated Options and they didn't wish to have a negative or positive reserve.

And they acknowledged that through the overall – while there was a – identified some strategic risk exposure for Muskrat Falls, there were certain strategic opportunities that had been identified.

And, you know, risk – the word risk includes, you know, opportunities and threats, and they were just acknowledging that, and pointing that out for that reason, and I believe I quoted the words and extracted the words from confidential exhibit 52 and placed – just above the summary.

MS. O'BRIEN: Okay.

MR. KEAN: To make sure it was aligned with that – with those principles that had been issued.

MS. O'BRIEN: So did somebody – you made these changes, did you?

MR. KEAN: Yes, I made the changes.

MS. O'BRIEN: Okay.

Did someone request you to make the changes?

MR. KEAN: I recall that, in part of the preparation for the indicative credit ratings that were being incurred, of course we had to provide a lot of documentation. You know, conformance checks to make sure all the documents were in good order – were being undertaken.

And it was flagged that this document had a different view than what was in confidential exhibit 52, so I was asked to bring the two – the risk report into alignment.

MS. O'BRIEN: Aligned with what was in confidential –

MR. KEAN: Yes.

MS. O'BRIEN: – exhibit 52 that had been filed in 2011 before the PUB.

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And who made that request –

MR. KEAN: Those –

MS. O'BRIEN: – to you?

MR. KEAN: – what I recall, those requests were coming from Nalcor finance at that point in time – Mark Bradbury, I think, was the general manager of finance and his advisors – Tom Garner and so on – were doing a review and flagged the issue.

MS. O'BRIEN: And so it was Mark Bradbury who asked you to make this change?

MR. KEAN: Well, he flagged it as a concern, and I agreed, yes, we need to make the – we need to make sure they're aligned, so I agreed to update the document.

MS. O'BRIEN: And so you aligned it with confidential exhibit 52.

MR. KEAN: Yes, I did.

MS. O'BRIEN: Okay.

That's been now – it's no longer a confidential exhibit – it's now been entered as P-01003, tab 30 of your book. Can you bring that up, please, Madam Clerk?

So, here it is. I'm not gonna read it out, or ask you to read it out. It goes on for a little bit. But is it fair to say that this document makes no reference to Emera?

UNIDENTIFIED MALE SPEAKER: (Inaudible.)

MS. O'BRIEN: Oh – you don't know – have you had a chance – I mean, you reviewed it –

MR. KEAN: I haven't looked at the – well –

MS. O'BRIEN: Just take a moment. It's –

MR. KEAN: Yeah.

MS. O'BRIEN: – at page – tab 30 of your book.

It's really just the first two pages, I believe –

MR. KEAN: Yeah, no –

MS. O'BRIEN: – you'd have to review.

MR. KEAN: – I was more – I recall the first two pages. It's more the Appendix A that I was wanting to make sure.

MS. O'BRIEN: Is it fair to say that the first two pages are the pages that provide the reason for the change or how – why the strategic risk was now nil?

MR. KEAN: Yes, it does, yeah.

MS. O'BRIEN: Okay. So in those first two pages that describe why the strategic risk was now nil, is there any mention of Emera?

MR. KEAN: No, there's not.

MS. O'BRIEN: Is there any mention of negotiations of the term sheet?

MR. KEAN: No.

MS. O'BRIEN: No?

MR. KEAN: No.

MS. O'BRIEN: Okay. So – and so, I just want to make sure that the evidence is clear here, so you completed the risk document for DG2 in June of 2011.

MR. KEAN: Correct.

MS. O'BRIEN: After it was done, you put in that document the reason that you understood, based on what you'd been told and the instructions you'd been given, that 6 per cent of strategic risk was removed during the Emera negotiations, right?

MR. KEAN: Yes, yes, I did.

MS. O'BRIEN: Okay, because of concern that it wouldn't pass muster with the UARB, right? Essentially?

MR. KEAN: That's my understanding, yes.

MS. O'BRIEN: Yes. Okay. And then Nalcor goes before the PUB on the reference question in 2011?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, and at that time, Nalcor files a confidential exhibit that would have been seen by the commissioners of the PUB, I take it?

MR. KEAN: Yes, I assume, yes.

MS. O'BRIEN: But the public would not have seen it.

MR. KEAN: I think there was a (inaudible) one for the public's consumption.

MS. O'BRIEN: Okay. So this particular document –

MR. KEAN: Redacted version, I think.

MS. O'BRIEN: Okay, so this particular document didn't get out to the public.

MR. KEAN: I think all but the appendices, or something.

MS. O'BRIEN: Oh, okay. So some of it did. Okay –

MR. KEAN: Oh, yes.

MS. O'BRIEN: – so it did get to the public?

MR. KEAN: I think it's the same front end, as I recall.

MS. O'BRIEN: Okay, thank you. And that – we can certainly confirm that.

All right. So this is – this was the explanation that Nalcor gave Emera for why there was no strategic risk.

THE COMMISSIONER: Emera or the PUB?

MS. O'BRIEN: The PUB. This is the explanation Nalcor gave the PUB for why there was no strategic risk in their number. Is that correct?

MR. KEAN: Yes. That's correct.

MS. O'BRIEN: Okay.

And then, when someone realized that the explanation that had been given to the PUB was different than what had been recorded in Nalcor's internal documents, you were instructed to go back and change that document to have the documents align.

MR. KEAN: Bring it into alignment, yes.

MS. O'BRIEN: Okay.

MR. KEAN: I saw no issue in doing that.

MS. O'BRIEN: Okay.

Do you see any issue with – if the reason was already recorded in your documents for why that 6 per cent, why the strategic risk had been removed, do you see any issue with Nalcor not providing that explanation to the PUB?

MR. KEAN: No, I guess, just to clarify, I guess, from the 6 per cent perspective, yes, it was removed in that regard. But, I guess, if it was a broader strategy regarding the treatment of strategic risk, I thought it was very important to capture that accurately.

MS. O'BRIEN: Okay.

MR. KEAN: The other items still stood. There were plenty of project documents that had referenced that 21 to 15 per cent removal. It was quite well known.

MS. O'BRIEN: Right. Filed before the PUB, though?

MR. KEAN: I don't know for certain, to be honest.

MS. O'BRIEN: Okay. All right.

Now, if you can – we can please go to Exhibit P-00264, please?

THE COMMISSIONER: Tab 14.

MS. O'BRIEN: Oh, sorry, Commissioner. Yes, thank you.

So this is your pre-sanction paper, and can we go to page 19, please?

So, here is in this – the pre-sanction paper, Mr. Kean, where you discuss this issue. I'm not gonna get you to read it out; it's there. But I do want to take you to a line here. You discuss it. You actually quote from the document before the PUB. You wrote here: "This step signified a shift in risk appetite." What you put in your paper there. "From this point forward, allowance for strategic risk exposure was not carried in capital cost inputs provided for CPW modelling, through to DG3." And then you go to say what you understood was believed.

But I wanna talk to you about that statement that this represent – this signified a shift in risk appetite. Can you please explain for the Commissioner what you mean by that?

MR. KEAN: Sure. So, I guess, if you go – if I could just anchor back to what I had said as part of the DG2 report, that, you know, the numbers that were provided in the QRA would be – had to be reassessed based upon Nalcor's risk appetite in general.

So at that perspective, what, I guess, what I interpreted – these are my words, my interpretation is that, of course, with confidential exhibit 52, there was recognition it was both pluses and minuses, there were opportunities, I guess, a lot of focus – you know, identifying those opportunities.

In that regard, you know, yes, it was a shift in appetite because it, you know, it did present, I guess, a bit more balanced view point, but, you know, it – in that regard, there was no provision there for those type events should they occur and that the view that they would be accommodated or compensated by opportunities that may exist.

MS. O'BRIEN: Sorry, could you just repeat that again? Sorry. When you say it was – it signified a shift in risk appetite, was that an increase or a decrease?

MR. KEAN: I guess it would be an increase if you're willing to, you know, acknowledging that there could be more opportunities there to offset some identified risk. You know, it's a matter of that you're willingness to accept that has to be considered, I guess, in the context of other drivers that may be feeding into that overall investment decision.

MS. O'BRIEN: Okay. So from your point of view, when this change was made at this time that that was a Nalcor increasing the risk appetite for the Lower Churchill Project.

MR. KEAN: Sure. Yes, yes.

MS. O'BRIEN: Okay. And that up until that point you had – you understood that it was, you know, that there would be strategic reserve carried in the capital cost estimates for the CPW modelling but at this point it became clear that it wouldn't.

MR. KEAN: Well, there should be – at that point in time we were providing those inputs whether they were actually went in, eventually stripped out or not, I just don't know. All I know –

MS. O'BRIEN: Okay.

MR. KEAN: – is that the inputs contain them.

MS. O'BRIEN: Okay. All right. But you can tell us that when the $5 billion dollar estimate was – came out at DG2 – that there was no amount in that number for strategic risk.

MR. KEAN: That's right. That number included the 15 per cent estimate contingency.

MS. O'BRIEN: For tactical risk only.

MR. KEAN: Tactical risk.

MS. O'BRIEN: And nothing for strategic risk.

MR. KEAN: There was no provision there, I guess, for management reserves by which – or used to fund strategic risk.

MS. O'BRIEN: Okay. And is it fair to say that strategic risks had not all gone away. I mean, there were still strategic risks, weren't there?

MR. KEAN: The value of the – those identified in 2008 had been dramatically reduced through the work plans that we had put in place.

MS. O'BRIEN: I understand, but they still existed.

MR. KEAN: Some different ones. Some had limited residual value but there was still strategic risk exposure, yes. Our – yes.

MS. O'BRIEN: Okay.

Can we go to page 21 of this document, please? So, we've talked a little bit, Mr. Kean, about the decision support package. One was done for DG2 and one was done for DG3. Did you have any involvement in the creation of the decision support package for DG2?

MR. KEAN: Yes, I participated in the –

MS. O'BRIEN: Okay.

MR. KEAN: – development of that document, yes.

MS. O'BRIEN: And what about for DG3?

MR. KEAN: I contributed to the document.

MS. O'BRIEN: Was there one you had more involvement with than the other?

MR. KEAN: As I recall I was more involved in Decision Gate 2 package, yes.

MS. O'BRIEN: Okay. But you – I take it these packages weren't – were put together by a number of people.

MR. KEAN: By a team.

MS. O'BRIEN: Okay.

MR. KEAN: Yeah.

MS. O'BRIEN: All right.

So, I just want to go down to the bottom here. I'm just going to read here – I just want to make sure I have the – yeah, okay.

So here you're actually talking about the Decision Gate 2 support package. You say – I'm just gonna pick it up – "The document '*DG2 Decision Support Package – Summary Recommendation to Nalcor's Board of Directors*' issued on 17-Nov-2010 recommended a phased approach for development of the lower Churchill River resources. Phase 1 would be comprised of Muskrat Falls, HVac lines between MF and CF, a HVdc link to Island, and a separate Emera-led HVdc link to Maritimes, with Phase 2 as Gull Island. DG3 would be targeted for Q3-2011 and an additional $100 to $150 million of capital would be required to be spent before a final go/no-go sanction decision is made. The document also includes the critical reference of the requirement for contingent equity stating '*A contingent equity commitment of $300-600M from the Province is also considered prudent and necessary.*'"

So actually, Mr. Kean, we have – we've had the board already here give evidence, and we've looked at that package here. Here, in your paper, you refer to that as a – that sentence – as a critical reference. And can you please explain for the Commissioner, when you say that's a critical reference, what do you mean by that?

MR. KEAN: In my view, it was a critical reference because it goes back to acknowledge earlier discussions that I had with Nalcor financing on framing a view of what should be – how the contingent equity amount should be sized based upon my knowledge of the strategic risk exposure and requirements for management reserves.

So in that regard, it was acknowledging that we need to be able to backstop these risks should they occur, or other risks occur, and that, above all mitigation measures, you know, the shareholder would backstop that and we've done – we've tried to frame that for them in terms of this 300 to 600 million.

MS. O'BRIEN: And in your mind, did that 300 to 600 million, you know, was that equivalent to the 6 per cent strategic risk? Or was that –

MR. KEAN: No.

MS. O'BRIEN: – in addition to? Just – if you could, help us with that?

MR. KEAN: Sure. I indicated that on the 13th of August, 2010, my team provided the P50 cost projections for Muskrat Falls that included 15 per cent estimate contingency and 6 per cent strategic risk exposure. So that's the 13th of August, 2010.

On the 1st of September, 2010, Mark Bradbury, who was the general manager of finance, and myself had a discussion regarding sizing the requirement for contingent equity to ensure there was coverage up to the P75 value. In our email exchange, I went back and indicated to Mr. Bradbury that, in my view, the contingent equity should be sized at 15 per cent of the base estimate which was 600 million.

So that gave me comfort, I guess, that – the acknowledgement that people were thinking along this way, because at the end of the day, contingent equity would be used as a means to fund any management reserve.

MS. O'BRIEN: Okay.

So you had that discussion with Mr. Bradbury, and when this range now appears in the Decision Gate support packages where it's 300 to 600, you said your assessment was 600 million. Do you know why it was presented in the Decision Gate package as a range?

MR. KEAN: In Mr. Bradbury and my exchange, I indicated 600, and he came back with a range of three to six. So I just –

MS. O'BRIEN: You don't know why he went –

MR. KEAN: Three to six is what ended up, and I don't recall any further discussions therein on that.

MS. O'BRIEN: Okay.

And I just want to make sure the Commissioner is clear, because the evidence on this has been a bit confusing, and you're the – sorry is there someone at the back of the room you're looking at?

Okay.

MR. KEAN: No.

MS. O'BRIEN: Okay. Sorry.

The – I want to make sure that the evidence is clear for the Commissioner on this because there has been a fair amount. You were very involved with these documents. So just to be clear, originally the 6 per cent contingent equity, that was just to bring it to a P50 confidence level.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

But that –

MR. KEAN: Six per cent strategic risk exposure.

MS. O'BRIEN: Six per cent strategic risk exposure would bring the number to a P50 confidence level?

MR. KEAN: Correct.

MS. O'BRIEN: You're – what I'm understanding – and please correct me if I'm incorrect – you're – you, in discussions with Mark Bradbury, you felt that you had to be – in terms of backstop from the province, contingent equity – that it would important to look at a P75 number? Is that right?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

And so in – your assessment at that time was that to get the overall confidence to a P75 number, an additional 600 million would be required?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay.

And so that would be – so 6 per cent plus another 600 million should get you overall to a P75 confidence level considering all your risks, strategic and tactical?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

And so you were communicating that to Mr. Bradbury because you thought look, when the province is looking at what they need to backstop here, P75 would be an appropriate confidence level to have?

MR. KEAN: Well, discussions had occurred from early 2008 on the aspect of contingent equity, and I guess, in the context of Mr. Bradbury had suggested the P75 number, what to bring it to. So we came – and that's, you know, with recognition that something could occur, you know, making people – making sure people are aware that this is the magnitude of the number you may be looking at –

MS. O'BRIEN: Okay.

MR. KEAN: – to bring it to a P75.

MS. O'BRIEN: Okay, but now here in this document that goes – so then you see this go to the board of directors. But again, the board of directors is told that there's a 300 to 600 million commitment necessary from the province, but it doesn't also talk about the strategic risk management reserve. Were you aware of that?

Like, if someone was reading this document – if the board was reading this document, is it fair to say that it's not clear from this document. They would not know that on top of the $5 billion, there would – to get a full P50 confidence level – there would be an extra 6 per cent needed for strategic risk exposure. And then, if you wanna get your backstop confidence up to a P75, you'd need up to an additional 600 million, because that's what you're telling me, right?

MR. KEAN: That's what this indicates here. As I recall from the board document, it was an all in cost, so it wasn't quite clear as to, you know, what was, you know, the pre – what was in from a strategic risk exposure. It was a very summary and abbreviated version.

MS. O'BRIEN: It was not clear in the board document?

MR. KEAN: Well, I guess it was clear as presented, but it wasn't all-in with financing cost and so on. I wasn't involved in the financing cost, so I couldn't really interpret as to what was involved, and I didn't prepare this – the board document – from my perspective.

MS. O'BRIEN: Okay, so – but from your perspective, what you'd need – I just want – so the Commissioner is, you know, clear on this. From your perspective, what would be needed to have a reasonable number for contingent equity and confidence at a P75 level for the government, they would be looking at an additional 6 per cent plus an additional 600 million?

MR. KEAN: Likely.

MS. O'BRIEN: Okay, thank you.

When you wrote the project risk analysis document for DG2 – I mean, when – I've read that document in both its versions. This information, you know, that – look, to get to a P75 here, you should have another 600 million in your back pocket or at least consider that – that's not in that document. Why didn't you just put that information directly in the document so it would be crystal clear to anybody who was reading it?

MR. KEAN: So as I recall, the document was written in June – in June of '11. You know, the document itself – the focus at that point in time – we're not making a final investment decision. You know, it's still a comparison of options. We had a risk analysis that was done on a somewhat similar case. It was a 600-megawatt Island Link, 250 kilovolt, so that's why I use the word proxy.

MS. O'BRIEN: Yes.

MR. KEAN: We had intended to present the information, present it as best as possible. And, you know, in recognition that when the document was issued in June of 2011 that at that point in time I understood that the CPW modelling had been done using the P50 and expected cost range. So that's what it reflected, I guess, those numbers.

You know, prior to that report, of course, we had summary tables with various scenarios in it and, of course, P75 at one point in time. So I just – it was a reflection of what it was.

MS. O'BRIEN: Did you ever have any direct communication with government on any of these numbers? No?

MR. KEAN: No.

MS. O'BRIEN: Okay

What about direct communication to the board about any of these numbers?

MR. KEAN: No.

MS. O'BRIEN: Okay.

And now I just want to clarify some of your evidence you gave. I am aware of what you are speaking about. The Commissioner, probably, I'm sure is not. But you referred to a proxy and I'm going to try to summarize this, Mr. Kean, just to make sure, but I want you to confirm that it's right.

But when the QRA was done for DG2 by Westney, and that was really that – those Monte Carlo simulations that you were relying on for developing the 15 per cent recommendation and the 6 per cent recommendation. That's right?

MR. KEAN: That's correct.

MS. O'BRIEN: And then – but there was a sort of a smaller-type change to the project definition after that work was done?

MR. KEAN: Fairly significant, but it was that –

MS. O'BRIEN: Okay, so what was that change?

MR. KEAN: Well, the change really was adopting an HVDC technology that would remove one of the big strategic risk exposures that we had identified.

MS. O'BRIEN: Oh.

MR. KEAN: And it was a more of a traditional HVDC technology that we have today. So that was the fundamental change which altered the strategic risk exposure, but there was some operating voltage changes and so on.

MS. O'BRIEN: Okay.

And so rather – with this change, rather that – I take it, it costs a fair bit of money to have Westney do one of these QRAs. Is that fair?

MR. KEAN: That's correct.

MS. O'BRIEN: I mean, like, can we get a ballpark number? I mean how much? Getting Westney to come in and do an analysis like this on the project, roughly how much does it cost?

MR. KEAN: 150,000 to 200,000.

MS. O'BRIEN: Okay, so it's a significant number. So rather then come back and spend an additional 150,000 to 200,000, what I understand from talking – speaking to you earlier is that you gave consideration to those changes, you know, used your judgment to how that would affect Westney's work. Then you came up with these numbers, but you referred to them as a proxy number –

MR. KEAN: I –

MS. O'BRIEN: – for that reason because you had done this little bit of adjustment after Westney had technically done their work.

MR. KEAN: That’s correct. I felt confident in – that it would be a representative P50.

MS. O’BRIEN: Okay. Thank you.

Commissioner, we’re just about at 12:30. So I’m about to go to a new area, so it’s probably a good time –

THE COMMISSIONER: Okay, well let’s take our break here – okay, then we’ll see where we’re going this afternoon.

One of the things I’m ultimately going to have to ask counsel to consider is – I’m hoping – I’m not – I was– we had – I had hoped that Commission counsel would finish with Mr. Kean today, giving a full day tomorrow for cross-examination.

I’m not sure if that’s going to happen now because we were a little late with finishing Mr. Marshall. So I’m giving consideration to whether we’ll sit late tonight or we’ll sit late tomorrow night to make sure we finish Mr. Kean, so you might want to think about that.

And what I’d like to try to do is at least get Ms. O’Brien’s direct examination done today. Or, alternatively, if it goes on to tomorrow, well, we know that we have all day tomorrow and perhaps some of tomorrow evening to try to finish Mr. Kean.

So think about that and we’ll talk about that when we come back this afternoon.

MS. O’BRIEN: Thank you.

THE COMMISSIONER: All right.

CLERK: All rise.

Recess

CLERK: This Commission of Inquiry is now in session.

Please be seated.

THE COMMISSIONER: Good afternoon, Ms. O’Brien.

MS. O’BRIEN: Thank you.

Okay, I’m gonna ask Madam Clerk to please bring up Exhibit P-00894. It’s tab 15 of your book.

So, Mr. Kean, this is another one of the papers that you were primary author on – but this one is the sanction paper, so another paper in the series. Can you go to page 17, please, Madam Clerk?

Mr. Kean, can I just ask you, please, to read out for the Commissioner the third paragraph and just to put some context around this? The – we know that at DG3, the capital cost estimate was announced at 6.2 billion and that’s what the subject is here. So if you could please read.

MR. KEAN: Third paragraph?

MS. O’BRIEN: Third paragraph.

MR. KEAN: “This $6.2 B value would become the Project Sanction or original DG3 Project Control Budget, and contained a P50 estimate contingency, with no provision for strategic risk, time-risk, or foreign exchange risk. The $6.2 B was internally characterized by the Project Team as an aggressive cost basis because there was no provision for the identified strategic risk exposure. At Decision Gate 2 there had been a push to remove it during negotiations with Emera with the intention to reconsider … it at Decision Gate 3. This however, did not occur due to the desire of Nalcor Executive to maintain the estimate at $6.2 B.”

MS. O’BRIEN: Okay. So first I want to ask you, in that paragraph, when you refer to the “desire of the Nalcor Executive” – who, specifically, would you be referring to there?

MR. KEAN: That would be the executive team.

MS. O’BRIEN: Okay, so can you give us names – give the Commissioner names?

MR. KEAN: Okay, I guess it would be, principally, Mr. Bennett and Mr. Martin.

MS. O’BRIEN: Okay. And, now, you’re saying that the project team categorized it as an aggressive cost base. First, can you be a little more specific as to who in the project team would you be referring to by those words?

MR. KEAN: That – I guess I would generally be referring to the, you know, the project management team.

MS. O'BRIEN: Okay. And just in terms of the people that you would – you know, you would consider the project management team – who are those people?

MR. KEAN: Well there would've been a diverse group, but it would include some of the individuals I had mentioned earlier that had been reviewing this document.

MS. O'BRIEN: So Paul Harrington, Lance Clarke, Scott O'Brien, Ron Power –

MR. KEAN: Mmm, yes, and –

MS. O'BRIEN: Okay.

MR. KEAN: – some others.

MS. O'BRIEN: Any other particular names that you can …

MR. KEAN: Not – not that I can think of right off.

MS. O'BRIEN: Okay, so for now and –

MR. KEAN: Yeah.

MS. O'BRIEN: – okay.

And if you wanna add anyone else to that group, please let us know.

And your view that the estimate was – and it – it was considered an aggressive cost base. Did you communicate that back up to the executive – look, we consider this to be an aggressive cost base?

MR. KEAN: Well, just – I guess, to clarify the 6.2 billion – the original – as original control budgeted, it did contain, per definition, the estimate contingency at P50. So, from a project team perspective, it – quite well founded in that regard.

The context, I guess, of aggressiveness, was more the aspect of acknowledgement that, you know, there were risks potentially that could be exposed beyond that, that must be covered. And be it the risks that have been identified as strategic risk or some other unquantified or unknown event that might occur.

So, in that regard, I – you know, it – there were lots of discussions regarding, you know, the external conditions or uncertainties that could occur. We had identified certain risks that were heavily mitigated, I might add, but still there was, you know, residual exposure. And, of course, in that regard, I guess the decision had been held to maintain the principles that had been in the confidential Exhibit 00052, about –

MS. O'BRIEN: And that was the decision of the executive –

MR. KEAN: Yes.

MS. O'BRIEN: – Mr. Martin, Mr. Bennett.

MR. KEAN: Yes, that's correct.

So that's what I mean by the aspect of aggressive.

MS. O'BRIEN: Okay.

And I think you raised a good point there.

So, we know that you did a lot of work at identifying and putting some quantitative analysis around tactical risks. And you did work in identifying and quantifying strategic risks. But of course, in addition to all the risks that you managed to actually identify, and you put some quantification around them, there would, of course, have been other risks that you never – that were potentially out there – some that might have actually come to fruition – that you didn't give any consideration to, really, prior to sanction.

Is that fair to say?

MR. KEAN: Well, when I say that, it – you know, there are events that can occur – that may occur – that none of us can foresee.

MS. O'BRIEN: Yeah.

MR. KEAN: And I – you know, the key is, you know, we've been making sure that, you know, that general awareness – and I think that generally existed.

And, above all else, as I said, it was clear to me that the – I understood the contingent equity and the shareholder would backstop those. I just – you know, my job is to ensure that what – have a process in place and we identify and do our best to quantify risk.

MS. O'BRIEN: Okay.

And I do know – and we'll get to some specific examples that – where you did make some communications about these – you know, the other risks that still lay out there that weren't being considered in the base estimate – certainly to Nalcor executives. So, we're – and we're gonna go through that, but if – I believe I'm fairly summarizing your evidence as that, you know, you did make effort to ensure that Mr. Bennett and Mr. Martin knew about these other risks.

MR. KEAN: As well as other parties.

MS. O'BRIEN: Okay. That's what I want to get to. Who are the other parties? So out, you know – are there other people within Nalcor that you specifically can recall, you know, making them aware?

MR. KEAN: Well the – no – senior managers of the project team would have been aware of these items.

MS. O'BRIEN: Okay.

MR. KEAN: You know, there would have been others – members of the management team I'm certain. I don't recall speaking with other executive committee members of Nalcor on these items, but –

MS. O'BRIEN: So you don't recall speaking to Derrick Sturge, for example, about these?

MR. KEAN: Not particularly as it relates to DG3, no.

MS. O'BRIEN: Okay. What about anyone – what about any other vice-presidents other than Mr. Bennett?

MR. KEAN: No, I wouldn't have, no. That – again – that – per chain of command, I wouldn't have been in that. You know, there was – you know, as I said, I recall those because I was – had some direct engagement in presenting to those, but how that information flowed after I presented it, I have no idea really.

MS. O'BRIEN: Okay. And just to be clear, so you never made any direct presentation to this – to any of the members of the board of directors?

MR. KEAN: No.

MS. O'BRIEN: Okay. And to nobody in government, is that right?

MR. KEAN: No.

MS. O'BRIEN: Okay. All right.

MR. KEAN: The only other entity would have been MHI and the IPR.

MS. O'BRIEN: Okay. And maybe we'll talk there about MHI. Did – there has been some evidence from MHI, specifically with respect to the work that they did at DG3, where they have said essentially the quantitative risk analysis work that had been done by Westney in relation to strategic risk at DG3 was not provided to them.

Do you have evidence to the contrary?

MR. KEAN: What I recall providing to MHI was a summary slide of the three major strategic risks and talking about that and giving them context as to the strategic risk as we had currently identified during the, you know, the early runs from the DG3 QRA, which were occurring at about the same time Manitoba Hydro was visiting us. Ed identified a quantum that looked similar to what it was at DG2.

MS. O'BRIEN: So you believe you actually gave them a number for strategic risk at DG3?

MR. KEAN: I thought I talked about it, yes. I'm pretty certain I did. I can't imagine not talk – you know, having that summary slide in the slide deck and not referring to it and going into some level of discussion.

MS. O'BRIEN: Okay. So at the break I'll speak to you and we'll look at trying to find that slide. Thank you.

Okay. If we can –

MR. KEAN: (Inaudible.)

MS. O'BRIEN: – and we are going to – we've heard some evidence about the IPR, so I don't need to go there right now. Still in this document, Madam Clerk, could you please go to page 10? And if you could go to the first full paragraph at the bottom, Mr. Kean, and could you please read that out for the Commissioner?

MR. KEAN: First full –?

MS. O'BRIEN: First full paragraph.

MR. KEAN: Yes.

"With the Base Estimate nearing finalization and ready to be completed for Decision Gate 3, in April 2012, Nalcor engaged John Hollmann of Validation" – Estimating – "LLC to complete a review of the process used to develop the Decision Gate 3 estimate in order to confirm that the process had been sufficiently robust and inclusive for a Class 3 Estimate. Hollmann completed this 1-week review and concluded" – I quote – "'***the LCP Gate 3 estimate in its current state is one of the best mega-project 'base' estimates that this reviewer has seen in some time. My conclusion is that this is in large part due to the active involvement of the owner leads in striving for best practices and quality.***'" End quote. "Considering Hollmann's expertise on the subject of cost engineering, these observations provided a level of reassurance to the PMT that the estimate would satisfy the requirements of a Class 3 Estimate. In fact, all third party" – reviewers – "of the DG3 estimate process resulted in similar commentary."

MS. O'BRIEN: Okay.

So who is John Hollmann?

MR. KEAN: John Hollmann is a self-employed consultant based in, I believe, Virginia. He owns the firm Validation estimation [sp Estimating]. He's one of, I guess, individuals such that have experience and have a practice built around cost estimating and cost engineering. Similar to what Richard Westney in his early phase in his career, so.

MS. O'BRIEN: Is John Hollmann fairly well known in the industry?

MR. KEAN: Yes, he is.

MS. O'BRIEN: Okay.

And in particular is – does he do a fair bit of work with the AACE? So this is the –

MR. KEAN: Yes.

MS. O'BRIEN: I'll get you to tell us what the AACE is.

MR. KEAN: It's an Association for the Advancement of Cost Engineering, really the total – well we – I'm a member; we say it's the total authority on cost management – cost engineering.

MS. O'BRIEN: Okay, and he's done a lot of writing for that body as well, has he?

MR. KEAN: He's championed a lot of recommended practices –

MS. O'BRIEN: Okay.

MR. KEAN: – that committees would put together, yes.

MS. O'BRIEN: And I believe even when we go back and look at some of the foundational documents that you put together on your risk management plan and whatnot, you would have used some of his guidelines – his AACE guidelines as reference documents that you would be using to govern the risk management and cost management of the project?

MR. KEAN: Not his guidelines, but AACE's recommended practice, yes.

MS. O'BRIEN: But authored by him?

MR. KEAN: He would've been a –

MS. O'BRIEN: There's one, I think, called risk that was authored by him that you used.

MR. KEAN: Well, he may have been the primary author but –

MS. O'BRIEN: Okay.

MR. KEAN: – there's usually quite a few people on those.

MS. O'BRIEN: Fair enough. So – okay.

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

So now, can we please bring up – so first of all, I should ask: Why did you engage Mr. Hollmann?

MR. KEAN: Well, I put together the plan with consultation with (inaudible) for the Decision Gate 3 cost estimate and articulated in the project controls plan, section 12. That – part of the strategy there was to have a – following the submission of SNC's deliverables, was to have a period of time to do an estimate review process. And there is a recommended practice from AECE that talks about that. There's part of that – it's a three-phase process dealing with review, validation and documentation of the estimate.

MS. O'BRIEN: Okay. And we did look at that document, actually, already when Mr. Lemay was on the stand.

MR. KEAN: Sure.

MS. O'BRIEN: Okay.

MR. KEAN: So I followed Mr. Hollmann's practice, as I followed others throughout the years, and I felt it would be a reassurance to me if I could get him to look at the work and the plan and how we had implemented the plan. And so I had met him on several occasions; so thought it would be prudent for him to do some of the validation on the process of putting together the base estimate.

MS. O'BRIEN: Okay.

And can we bring up P-00610, please? Tab 28 of your book.

So we found this document among Nalcor's records, but it is a – it's just a – here's the cover letter – April 9, 2012. It notes it's just a draft report. It does say draft on it. We were not able to find a final report.

Was a final report ever issued by Mr. Hollmann?

MR. KEAN: No. No.

MS. O'BRIEN: Okay. And to your knowledge why was the report not finalized?

MR. KEAN: (Inaudible) John had made observations and started to drift off course in this report. John was on a – you know, it's a reimbursable consultant. The effort, I thought, to take to go back and, you know, bring him into alignment, you might say, and I said: Well, the reality is we're trying to push towards getting the final estimate available in June, (inaudible) came to organizational capacity. I felt that we had what we needed. I had a validation that things were in good shape. I kept this fairly – you know, this was in – this was, if you would, this wasn't to be marketed as a big external review. This was my review, to be quite honest with you – a bit of validation of my own work and the coordination that I had led with the team. So it didn't – I thought – felt comfortable with where we were.

MS. O'BRIEN: So – okay. So it wasn't to be marketed as …? I missed what you just said.

MR. KEAN: Well, it's not a – you know, lots of times in project reviews that have occurred across the Lower Churchill, be it IPA or IPRs and so on, they're a higher level. You know, like, as in MHI and they're publicly discussed and, you know, people are made aware. This was a bit more of an internal working level review, if you would. Bit of a peer review, you might say.

MS. O'BRIEN: Okay.

Now, of course, we just went to your – the paper that you wrote where you quoted Mr. Hollmann, you didn't say in the paper you were quoting from a draft report. Why not?

MR. KEAN: I don't recall.

MS. O'BRIEN: Okay.

Can we bring up P-00108 – sorry, 01008, please?

THE COMMISSIONER: Tab 56.

MS. O'BRIEN: Sorry, yes. I don't have my tab numbers here, Commissioner.

Okay, this is a presentation here; it's attached to an email, I believe. But this is a presentation that was given – I believe from what we can see from the covering letter, the re line on the email, it was given in Ottawa, I believe: Ottawa Presentation, 18 July 2012.

Can we go to page 37?

And it says on the front it's the final version of the deck, and it's your email.

MR. KEAN: Yeah.

MS. O'BRIEN: And here we have Third Party Validation. And you have the same quote here, and you say: "John K. Hollmann, PE CCE CEP, Owner – Validation Estimating LLC

"(Recipient of AACE's highest honor, the Award of Merit, for editing/authoring the Total Cost Management Framework and authoring or assisting in developing many of AACE's Recommended Practices)"

So here you are, preparing the deck to go out to Ottawa to present to people who would be financing this project. Is that right?

MR. KEAN: I assume that's this deck. Yes, the (inaudible).

MS. O'BRIEN: Okay, and you are marketing his review and you've got the quote here and you, you know, have quite a bit of detail about his awards, his honours, his status. I mean, is that really fair to say that it wasn't to be – the report – and it's a draft report. You don't mention that.

Is it fair to say that it wasn't to be used as marketing material?

MR. KEAN: Well, it's a factual aspect that Nalcor paid for the material – the work to be done. That was a conclusion that was presented by the author of the report, so I felt it would be – didn't see a problem with presenting that.

MS. O'BRIEN: You don't think it's a bit misleading not to let the people know that you're quoting from a draft report?

MR. KEAN: Never crossed my mind.

MS. O'BRIEN: Okay.

P-01009, page 88. This is a slide deck, and maybe it was – sorry, I'm just going to go to the first – this is a slide deck that was presented; you'll see here it goes to Gerry Shortall on the board. So this is a slide deck that was presented to the board. Page 88, please. Might not have the right page number here. I obviously don't. There we go, here we go. Same thing, this is a presentation to the board, same quote, same information. Again, you're not telling the board it's a draft report.

MR. KEAN: I – this is not my presentation, I'm sorry.

MS. O'BRIEN: Okay. You realize that there is any number of Nalcor documents that we have received where this quote has been used in many external presentations by Nalcor.

MR. KEAN: Okay.

MS. O'BRIEN: Okay? And none of them say that it's a draft report. Are you aware of that?

MR. KEAN: As I said, I don't see – think that's – I don't see that's a problem.

MS. O'BRIEN: Okay.

And I'll note here the quote starts with: "… the LCP Gate 3 estimate in its current state is one of the best mega-project 'base' estimates …." Now, I'd like to actually go to the report now and look at what that quote says.

Can we please go back to P-00610, page 4? It's tab 28, Commissioner. Here's the quote right here. Can you read the first phrase of the quote, the part that's actually not in the quote?

MR. KEAN: It says: “First, it should be noted that while not perfect ….”

MS. O’BRIEN: Right.

MR. KEAN: I do believe the actual detailed quote is from within the document.

MS. O’BRIEN: It’s there again, I think, another time. And it also says though while not perfect though, doesn’t it?

MR. KEAN: It may.

MS. O’BRIEN: Okay.

But, you know, I noted each time, you know, the quotes you have – you know, the ellipsis, the dot, dot, dot, to suggest that words were taken out, right? When you quoted it in those slides we just looked at, do you remember, they started with –

MR. KEAN: Sure, yeah.

MS. O’BRIEN: – ellipsis, right, to suggest that words were taken out? The words that you took out were that: “First, it should be noted that while not perfect,” right?

MR. KEAN: I also would like to point out this –

MS. O’BRIEN: Sorry, just answer that question first, right? The dot, dot, dot, the ellipsis, the words you took out were: “First, it should be noted that while not perfect ….”

MR. KEAN: Yes, that would be correct.

MS. O’BRIEN: Okay. Sorry, continue.

MR. KEAN: I just wish to point out that the review was done as of April 2 and there had been a number of months’ work after that to finalize the estimate. So the – going back to the aspect of being perfect, the process was still underway.

MS. O’BRIEN: Okay, but you were just quoting. You were cherry-picking words from a draft report from Mr. Hollmann, right?

MR. KEAN: I quoted the report.

MS. O’BRIEN: Okay.

Let’s see what else is in that report. Can we go to page 5? So this is under recommendations. Can you read out the second bullet of Mr. Hollmann’s recommendations, please?

MR. KEAN: “Conduct the appropriate risk analysis and based on probabilistic outcomes, recommend best practice cost and schedule contingency and” reserves “allowances prior to Gate 3.”

MS. O’BRIEN: Okay. Keep going, please.

MR. KEAN: “If no schedule contingency is allowed, cost contingency will be increased to allow for risk responses driven by the assumed objective of schedule preservation.”

MS. O’BRIEN: Okay.

And there was no cost – schedule contingency in the DG3 base, the capital cost estimate that you used at DG3? I think we just went to your report a few minutes ago where you said there was no time. Was there any schedule contingency –

MR. KEAN: There was a –

MS. O’BRIEN: – contained in the 6.2?

MR. KEAN: – schedule allowances only, not schedule contingency.

MS. O’BRIEN: No schedule contingency –

MR. KEAN: Schedule –

MS. O’BRIEN: – in the 6.2.

MR. KEAN: – allowances.

MS. O’BRIEN: And if we could go to page 11, please?

This is under the “Risk Management Strategy” section. I won’t get you to read it all, but perhaps you could start there where it begins: “Weak Logic ….”

MR. KEAN: “Weak Logic in Treatment of Risk Costs: What message is sent when no reserves are included for 100% probable risks (e.g., shortages of labor)? If they are 'balanced by opportunities', then include that in the method; what are those opportunities?"

MS. O'BRIEN: Please continue.

MR. KEAN: "Ambiguous or Confusing Terminology: 'Tactical' and 'Strategic' are" often "mistakenly defined as synonymous with contingency and reserves respectively. Yet, most … strategic risks are not negotiable and have 100% probability of occurring (e.g., shortage of labor); there is only" an "uncertainty in" the "scale of impact."

MS. O'BRIEN: And continue.

MR. KEAN: "Obfuscation: Trademarked, black box methods (and non-industry standard terminology) obscure the fact that … risk quantification methods used were not well aligned with industry … analysis principles (e.g., did not explicitly quantify the risks identified)."

MS. O'BRIEN: Okay.

We could go on, but you didn't quote any of those passages in the presentations that you put together for the Commission. Is that right?

MR. KEAN: Well, the concern I had, fundamentally, was that the risk analysis for DG3 wasn't completed, nor was it in Mr. Hollmann's scope. His scope was centred around the base estimate.

MS. O'BRIEN: He is a leading professional in this area, is he not?

MR. KEAN: Yes, he is.

MS. O'BRIEN: Okay. Award of merit from AACE?

MR. KEAN: Yes, he has been.

MS. O'BRIEN: You were following documents in your risk-management structure that he was at least one of the authors on?

MR. KEAN: Oh, very much so.

MS. O'BRIEN: Okay.

And he is telling you that you – that there is ambiguous, confusing terminology in how you're defining tactical, strategical and that you're – he's noting that most of the strategic risks are not negotiable and have 100 per cent probability of occurring, e.g. shortage of labour, right? He's giving you some very direct – this is a direct recommendation or advice here from him, right?

MR. KEAN: He's making an observation, yes.

MS. O'BRIEN: Okay, and – sorry, and why didn't you make use of this advice?

MR. KEAN: It was incorporated.

MS. O'BRIEN: Well, you still used tactical and strategic?

MR. KEAN: That's an industry standard.

MS. O'BRIEN: Okay and did you still include shortage of labour under strategic?

MR. KEAN: The labour availability, particularly as it relates to supervision and so on, was a strategic risk, but by DG3 had been largely resolved.

MS. O'BRIEN: But not completely resolved?

MR. KEAN: I don't think shortage of labour has ever been a problem on the Muskrat Falls Project.

MS. O'BRIEN: Okay.

So your evidence is that you felt that he'd pointed these things out to you, so you should – but you felt you'd dealt with them.

MR. KEAN: No, as I said earlier, our risk work was still underway at this point in time –

MS. O'BRIEN: Mm-hmm.

MR. KEAN: – our finalization of the estimate. John made some comments about, for instance, the basis of estimate. So that document wasn't complete at that point in time.

MS. O'BRIEN: Okay.

MR. KEAN: So it was a lot of things underway to bring things to closure at that point in time.

MS. O'BRIEN: But the document – you're saying the document wasn't complete, yet you regularly – Nalcor regularly quoted it in its slide presentations that it was making to government, that it was making to the board of directors, that it was providing to lenders, right?

MR. KEAN: So, Mr. –

MS. O'BRIEN: Yes, is that correct?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

We had Tom Marshall on the stand this morning. I don't – four or five times he mentioned how this review had been done by Validation Estimating.

MR. KEAN: Okay, I wasn't aware of that.

MS. O'BRIEN: Were you aware of that?

MR. KEAN: No.

MS. O'BRIEN: Okay, so here we have the minister of Finance, who in his testimony before this Commission is saying: I believed it was a great base estimate. They had Validation Estimating – he knew the name – who had reviewed it, was one of the pieces of information he was pointing out.

Yet, I don't believe Mr. Marshall knew that he was quoting from a draft report. And I don't believe Mr. Marshall would have known that Mr. Hollmann of Validation Estimating also said these other things in the document that you chose not to circulate. Do you agree with that?

MR. KEAN: I don't really have a comment.

MS. O'BRIEN: Is there any way that Mr. Marshall could've been aware of this information?

MR. KEAN: I have no idea the communication chain, I'm sorry.

MS. O'BRIEN: Well, maybe you do. Could we please go to P-00957? So this is the –

THE COMMISSIONER: Tab 29.

MS. O'BRIEN: – email; it's up on your screen and it's tab 29 and it's the email. And if we just go to the bottom here we'll see this is where Mr. Hollmann forwards you his draft report. And this is where you send it to Mark Turpin, your right hand, and you say: "FYI - Do not circulate or leave lying around."

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And that's the only document we have found that show any circulation of this report within Nalcor.

MR. KEAN: As I indicated, it was prepared for – I used it as an internal peer review.

MS. O'BRIEN: So how – if you used it as an internal peer review and you told the one person you forwarded it to, Mr. Turpin, not to circulate it or leaving lying it around, how on earth would Mr. Marshall have been able to see it?

MR. KEAN: I don't know of how he – if he did see the document. I know I prepared a quote, extracted that material to place on that particular – first slide deck you had mentioned. But as to where that went afterwards, I have no idea.

MS. O'BRIEN: Oh no, he'd seen the quote on the slide deck, but the thing is he wouldn't have seen – he wouldn't have known it was a draft document, right? How could he have known it was a draft document?

MR. KEAN: Probably not.

MS. O'BRIEN: Okay.

And he wouldn't have known that Mr. Hollmann also said things like: weak logic in treatment of risk costs, obfuscation. He wouldn't have known Mr. Hollmann had made those comments.

MR. KEAN: He wouldn't have unless he got the final report or the draft report.

MS. O'BRIEN: No, and – exactly. And why didn't he get the draft report?

MR. KEAN: I have no idea.

MS. O'BRIEN: Would it be because you only – you were the person at Nalcor who received it, right? You're the one who received it at Nalcor.

MR. KEAN: Yes, it was my review that I had sanctioned. Yes.

MS. O'BRIEN: Okay.

So you received it, you forwarded it to one person, right?

MR. KEAN: My lead estimator, yes.

MS. O'BRIEN: And you told that person not to circulate it or leave it lying around.

MR. KEAN: That's correct.

MS. O'BRIEN: So isn't that why Mr. Marshall and many others wouldn't have seen it?

MS. HUTCHINGS: (Inaudible.)

MS. O'BRIEN: Yes.

MS. HUTCHINGS: It's Deborah Hutchings.

THE COMMISSIONER: Just press your button there.

MS. HUTCHINGS: Thank you.

I'm here for counsel for Mr. Kean and I understand the role that Ms. O'Brien is playing to try to get the evidence out. But on this particular point I think that Mr. Kean has already explained the purpose for the report, the reason why the report is not circulated – it's for internal peer review. He's quoted from the report, he's given the evidence and I think that that's sufficient.

I'm finding right now that the line of questioning from Ms. O'Brien is going over the edge, or very close to the line if not over the edge, of where the questioning and the line of questioning should be with this Inquiry.

THE COMMISSIONER: Thank you.

Ms. O'Brien.

MS. O'BRIEN: Thank you, Commissioner.

I do believe this is very important evidence. We have this – a quote from this report that has been circulated by Nalcor. Validation Estimating has been referenced by many witnesses who've come before you. I've showed the slides that you have the quote.

I think it is in – and Mr. Marshall did give this evidence this morning and I think – I want to make it to be clear why the information did not get out there that that quote came from a draft report and why the other information in that quote did not also get circulated. And this is the witness who had control of it, so that's the purpose of my line of questioning and I do believe it's important evidence.

THE COMMISSIONER: Right.

So I'll just address this two ways; first of all, to say that Mr. Marshall is not the only one who has referred to Validation engineering and the quote in question in this hearing, so it's already evidence before the hearing. And the second thing I'll say is this: Is that, you know, it's the duty of Commission counsel to present the evidence to me so that I can assess what has transpired here. This is evidence that I think is extremely important because others, including people in government, have relied on it and it goes directly to the issue of some of the terms of reference that I have to address.

As to whether or not Ms. O'Brien is going beyond, I don't know Ms. Hutchings – and I don't say this in any way flippantly or disrespectfully – but, Ms. O'Brien, if you had been here for the rest of this Inquiry I think you would have seen questions that would have been far more aggressive, if I can utilize that terminology, than what's being utilized right at the moment by Ms. O'Brien. So I find it to be absolutely fine.

And continue, Ms. O'Brien.

MS. O'BRIEN: Thank you.

So, Mr. Kean, I guess my point is that would you not agree the reason Mr. Marshall or other people didn't see this information is because you didn't circulate it?

MR. KEAN: I have no reason – no understanding as to why Mr. Marshall would even be aware or, you know, seen the entire report and so on. From a perspective –

MS. O'BRIEN: He knew about Validation.

MR. KEAN: Okay.

MS. O'BRIEN: He didn't say he saw the report. He knew that Validation Estimating had done a review of the numbers and I've shown you slide decks where that quote has been used and the – you know, Mr. Hollmann has been referenced and his accolades have been referenced in relation to the quote.

MR. KEAN: So, just for – I just wish to clarify a statement you made. Mr. Hollmann didn't review the numbers. Mr. Hollmann reviewed the process upon which we arrived at the estimate, not a quantitative review to say that the numbers were good. That was done by others.

This is a qualitative process check to ensure that we put together an estimate that adheres to good process. That was the intention. He didn't have time to do a fully quantitative review in this scope.

MS. O'BRIEN: Okay, that does lead to another question. But, first, I want to confirm that the reason, you know, to – whether you agree with me that this is the – the statement I'm making – is that the reason Mr. Marshall and others were not aware that it was a draft report, and the reason they were not aware that Mr. Hollmann had used words – as I said, like, you know, weak logic and those types of words – was because you were the one person in Nalcor who got it. You forwarded it to your right hand only and no one else. Is that right? Am I right so far?

MR. KEAN: I would expect others would have seen it.

MS. O'BRIEN: But I don't see – we can't find any email chains, all we can find is this email where you say don't circulate it or leave it lying around.

MR. KEAN: Sure. I do know it was stored on the network drive. It probably went in the document control system, so …

MS. O'BRIEN: Okay.

MR. KEAN: And it probably was used in management discussions. We would've looked at the report.

MS. O'BRIEN: Do you know that?

MR. KEAN: I can't see me not having a report and – discussing it with my management team.

MS. O'BRIEN: Do you recall doing that?

MR. KEAN: I don't recall the specifics, no.

MS. O'BRIEN: Okay. Do you – I mean, are – can you tell us that other people knew that Mr. Hollmann had made these comments?

MR. KEAN: I would expect my management – the management team would have known.

MS. O'BRIEN: Okay but other than expectations, is there any information that you can say, yes, I recall, I spoke to Paul Harrington about this. He knew.

MR. KEAN: I can't recall the specifics of speaking to Mr. Harrington on the report, no.

MS. O'BRIEN: Okay.

But you do know you told Mr. – it was you who told Mr. Turpin not to circulate it or leave in lying – leave it lying around.

MR. KEAN: And there's a particular reason for that.

MS. O'BRIEN: Yes. I think there is, yes.

MR. KEAN: No, maybe – I would just like to point out there were some comments levied about our EPCM consultant. We were sharing the same space. I didn't wish to have that – the people pick up that and read it the wrong way. I was trying to build a team, trying to get people to work together to finalize an estimate.

MS. O'BRIEN: Okay.

Now, just then, I believe I heard you say that Mr. Hollmann did not review the numbers of the base estimate. Is that right?

MR. KEAN: He reviewed the numbers, but not in the purest sense of a quantitative check where he would look at production rates and those type things.

MS. O'BRIEN: Okay.

MR. KEAN: That would've been done by others as part of an estimate check process.

MS. O'BRIEN: So he didn't dig deep into the numbers to get the numbers – to analyze the numbers.

MR. KEAN: No, that wasn't within his scope of review.

MS. O'BRIEN: So he was mostly looking at process.

MR. KEAN: That's largely correct, yes.

MS. O'BRIEN: If those are the facts, does it not occur to you that circulating his quote that "the LCP Gate 3 estimate in its current state is one of the best mega-project 'base' estimates that this reviewer has seen in some time" would not be misleading to those people reading that quote without the further information that, oh, by the way, Mr. Hollmann did not dig deep into the numbers, he was mostly looking at process?

MR. KEAN: No, Mr. Hollmann had access and was aware, to my recollection, that all the check estimates that had been done – you know, of the benchmarking that had been done, of the lessons learned that had been captured and placed into the estimates.

So that was the focus during our period of time with him, to talk through those things, to make sure he was aware of those things, so he could ask questions of us and review some of our documentation and so on, so he could determine, you know, how were quantities being derived and – that are being used to produce an estimate.

MS. O'BRIEN: But did he do –

MR. KEAN: So it wasn't a holistic review of putting that estimate together in the regard.

MS. O'BRIEN: Okay. But you said he didn't do a deep dive into the numbers, right? Yes or no, did he –?

MR. KEAN: No, no.

MS. O'BRIEN: Okay. Did he look at the production rates that you were using?

MR. KEAN: No, he did not.

MS. O'BRIEN: Okay. Did he check your quantities?

MR. KEAN: He made spot checks, as I recall, to understand the sourcing of quantities, how they flow from engineering through to the estimators.

MS. O'BRIEN: Okay, but did he look and give an analysis of are these quantities correct?

MR. KEAN: No, that was outside the scope.

MS. O'BRIEN: Okay. Did he look at the pricing you were using to see if you were using the right pricing?

MR. KEAN: He would've looked at the actual pricing methodology –

MS. O'BRIEN: Okay.

MR. KEAN: – and how we land upon the pricing that we would be using.

MS. O'BRIEN: Okay. Did he look at the pricing –?

MR. KEAN: He would probably spot check pricing, yes, individual pricing based upon certain norms and so on, but he would not have been tasked with reviewing all price – the thousands of items where prices would be.

MS. O'BRIEN: Okay. So my question still – I'm still putting the question to you.

Do you see that that might be – for someone who reads the quote that you used in those slide presentations, where it says that look, this fellow, top of the field, top of the industry, award of merit winner, he says that "the LCP Gate 3 estimate in its current state is one of the best mega-project 'base' estimates that this reviewer has seen in some time." Can you appreciate that people reading that would think that, look, he looked at the numbers, he looked at our production rates, he looked at the quantities and he said this is a great estimate?

Can you see that's the impression that would be left with people?

MR. KEAN: Well, the aspect of reading a quote –

MS. O'BRIEN: Sorry, just – I'm gonna get you to answer that question.

Do you see that that – that's an impression that would be left with– I'm gonna put it to you – many readers of that quote?

MR. KEAN: I don't see that. I look beyond that to understand what – how it's given in a context.

MS. O'BRIEN: If you don't provide people with the context –

MR. KEAN: I would've provided people with the context during the presentations that I gave.

MS. O'BRIEN: Do you believe you told them it was a draft report?

MR. KEAN: I gave them context where all the estimate was and what Mr. Hollmann's scope was –

MS. O'BRIEN: Okay.

MR. KEAN: – is what I recall.

MS. O'BRIEN: Were you there at every presentation where that – where Nalcor put that quote into a slide deck and presented it to people?

MR. KEAN: No, I was not.

MS. O'BRIEN: Okay.

Can we go to P-00862, please?

THE COMMISSIONER: 00862 at tab 4.

MS. O'BRIEN: 00862, tab 4. Thank you, Commissioner.

MR. KEAN: Thank you.

MS. O'BRIEN: Okay.

So, Mr. Kean, this is at your timeline of events. Can we go to page 32, please?

Okay. Looking at the entry here on December 17, 2012. Could you please read out that entry?

MR. KEAN: Seventeen – project sanction occurs?

MS. O'BRIEN: Yes.

MR. KEAN: "Project Sanction occurs. Control Budget set at $6.2 B (2012 CDN$), excluding any management reserve (contingent equity), or allowances for strategic risk exposure. Sanction is predicated upon a target schedule of First Power by mid-2017 and Full Power by the end of 2017, including the critical pivot point of river diversion in 2015. Sanction premised upon LIL being able to move power from Labrador prior to MF being ready.

"It should be noted that by this point in time, the capital cost estimate forming the base of the DG3 was prepared" approximately "12 months earlier …."

MS. O'BRIEN: Thank you.

So, here you say that the sanction was done with a first power date of mid-2017. We've also heard evidence from people at Nalcor who were involved in the CPW calculation that mid-2017 was the first power date that was used in that analysis. Are you – were you aware of that as well? Is that knowledge you have?

MR. KEAN: A mid-2017 date; that's consistent with the input that was provided for CP – to investment evaluation.

MS. O'BRIEN: Okay. And so was that for first power or full power, that you provided –?

MR. KEAN: First power.

MS. O'BRIEN: First power. Okay.

MR. KEAN: And each of the units thereafter, we would have provided viewpoints on the dates.

MS. O'BRIEN: Okay.

And if we could go to P-00864, please.

UNIDENTIFIED MALE SPEAKER: 00864.

MS. O'BRIEN: Page 17. This is one of your papers is the sanction paper, I believe, again? Can you go to page 17?

I obviously have a wrong – 00862, let's try the 00862, sorry.

THE COMMISSIONER: That's tab 4.

MS. O'BRIEN: Yes, thank you.

Seventeen. Okay, Commissioner, I obviously have a wrong cite there. Try 00894, please.

THE COMMISSIONER: Tab 15.

MS. O'BRIEN: And page 17. Maybe third time's the charm.

Okay. Here we go. Could you please read the last paragraph there? And this is, again, the – I had the document right, just the number wrong. This is your paper on sanction. Can you read the last paragraph, Mr. Kean?

MR. KEAN: "As with all QRAs undertaken by Westney, the DG3 QRA included a full assessment of …" the "identified strategic risks related to both cost and time, and were modeled using Westney's risk modelling techniques. The time-risk analysis highlighted (reference Figures 10 and 11) that there was a low probability of achieving a July 2017 First Power date as was currently being targeted; rather the risk-adjusted schedule suggested the potential of an 11 to 21-month delay for First Power (P25 to P75) beyond the scheduled duration post sanction of 58 months (Project Sanction to First Power). **In other words, the QRA revealed that there was a very low likelihood of achieving First Power by the target date of July 2017**. Nalcor Executive acknowledged that the schedule was very aggressive but wanted to drive the contractors to provide their best efforts to meet the target dates. This approach did not change until the main civil contract (CH0007) bidders provided their bids and schedules. At this point, the First power date was then moved from" 2017 to late 2017.

MS. O'BRIEN: It's from mid –

MR. KEAN: Mid-2017 to late 2017. Sorry

MS. O'BRIEN: Mid-2017 to late 2017. Okay.

So, first of all, here, when you're referring to Nalcor executive, who specifically are you referring to?

MR. KEAN: That'll be, again, the leadership team, principally, Mr. Bennett and Mr. Martin.

MS. O'BRIEN: Okay. And you say the approach did not change until the main contract bidders provided their bids and schedules, contract CH0007.

Is it – my notes indicate that those bids didn't come in until April 2013. Is that consistent with your recollection?

MR. KEAN: It actually changed before that. It occurred – the final change occurred in February of 2013 – was when the decision was made.

MS. O'BRIEN: Sorry, let's clarify.

MR. KEAN: So it was before the –

MS. O'BRIEN: The bids for –

MR. KEAN: It was before the bids were received. A couple of months.

MS. O'BRIEN: Okay.

Here you wrote that it didn't change until the main civil contract bidders provided their bids and schedules, okay? Let's first deal with that part.

MR. KEAN: That's –

MS. O'BRIEN: I understand that would have been April 2013. Is that consistent with your recollection?

MR. KEAN: I understand the bids were received, but this is an error. The project change notice 156 or something actually documents the decision being made in February of 2013.

MS. O'BRIEN: Okay.

So it was 2013 now. So you're saying what you wrote here was wrong, but February 2013 is when the –

MR. KEAN: Yeah.

MS. O'BRIEN: – change was made to go from a mid-2017 first power to a late 2017 first power?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay.

MR. KEAN: Yeah.

MS. O'BRIEN: Can we go to page 18 of this document, which should be the next page?

Okay. So this is – shows – this is – you've got here a graphic, and I believe this might have come from Westney's QRA work, is that right?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

So you've just put it here in your paper and it shows a little bit as to how that risk – how the risk – schedule risk occurs. And if we go to the next page here, and so this one shows – and we may need to make it a little bit bigger, Madam Clerk, please.

MR. KEAN: I'd very much like if I can provide some context on this, if I may.

MS. O'BRIEN: You will be able to provide context, Mr. Kean, but just please let me ask my questions.

So – okay, so this is the graphic that you included in the paper that you prepared for the Commissioner – or for the Commission?

MR. KEAN: I prepared for Muskrat – for Nalcor, sorry.

MS. O'BRIEN: Yes, okay.

But this was the paper prepared when the Commission was called. That was my point.

MR. KEAN: This is a graphic that's been extracted from the DG3 risk report.

MS. O'BRIEN: Okay.

MR. KEAN: So yes.

MS. O'BRIEN: All right.

And so this is – shows – this comes from the QRA work that Westney did, and this is one of these S-curves that we've heard some evidence about already?

MR. KEAN: Yes.

MS. O'BRIEN: Yes?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

MR. KEAN: Sorry.

MS. O'BRIEN: And so this says current – and we see the graph here. And we see a P50 number of 21 September, 2018, and a P25 of 18th of June, 2018, and a P75 11th of April, 2019. Is that right?

MR. KEAN: That appears to be correct from what I'm reading, yes.

MS. O'BRIEN: Okay.

And up in the top corner there it says: current schedule 15 July – or 15 July 2017 equals P1, right?

MR. KEAN: That's what's stated there, yes.

MS. O'BRIEN: Okay.

And that's what you put in – you chose to put this slide in the paper.

MR. KEAN: Yes, I led the work –

MS. O'BRIEN: Okay.

MR. KEAN: – and made sure it was complete – the risk analysis work, so …

MS. O'BRIEN: Okay.

And it does say there at the side: "Results are still largely driven by timing of Muskrat Falls Generation Facility. Major risks for facility are: timely placement of concrete in powerhouse; ability to place cofferdams and RCC dams while avoiding flooding" and "availability of labour, skills, and front-line supervision." So is that fair to say that these were the major risks that were driving schedule risk?

MR. KEAN: The first two was; the third was the driving the strategic cost risk.

MS. O'BRIEN: Okay. And then, would that in turn also have some schedule –

MR. KEAN: No, no, it would've been –

MS. O'BRIEN: Okay.

MR. KEAN: – influenced the overall viewpoint on strategic risk exposure.

MS. O'BRIEN: Okay.

MR. KEAN: The first two were the items that were driving the viewpoint on schedule, and particularly, aspect of labour was more the – of the – a cost aspect in itself.

MS. O'BRIEN: Okay.

MR. KEAN: Not a time aspect.

MS. O'BRIEN: Okay, and we're going to get a little bit more into the work that Westney did on risk in a little bit.

And just to – we're going to talk about some of the risk work, but this is the way I basically understand the evidence so far: That the way Nalcor worked you would've identified risks, right, as a first step? Yes?

MR. KEAN: Yes.

MS. O'BRIEN: And then worked to see if you could mitigate those risks?

MR. KEAN: We would work to understand the risk, first and foremost –

MS. O'BRIEN: Okay.

MR. KEAN: – the characteristics of the risk.

MS. O'BRIEN: Okay.

MR. KEAN: And evaluate the risk in terms of its priority from – for trying to respond to and then evaluate what response strategy and action plan might be appropriate to respond to that risk and form a viewpoint as to a pre- and post-response exposure in terms of cost or time, yes.

MS. O'BRIEN: So that's like mitigation.

MR. KEAN: Mitigation is one of four response strategies, so I (inaudible).

MS. O'BRIEN: Okay, sorry, what are the other three?

MR. KEAN: Avoid, transfer and allocate.

MS. O'BRIEN: Okay. Avoid, transfer, allocate and mitigate.

Thank you. Okay.

And then, to the extent you can't transfer the risk or you can't mitigate the risk or you can't otherwise deal with it, what I understand, when you do these quantitative risk analyses, is then you say, well, look, if the risk does happen, what's the worst-case scenario of what this could cost us in dollars or days and what's the best-case scenario in what this could cost us in dollar and days.

MR. KEAN: If you can't –

MS. O'BRIEN: Is that –

MR. KEAN: If you can't mitigate it, you look at – there's what we call a residual risk exposure.

MS. O'BRIEN: Okay.

MR. KEAN: So it has some exposure that exists, be it time or costs if we're dealing with those two principally, and their risk can impact many other things, of course, other project objectives. So in terms of the quantitative aspect, it's usually cost or time.

MS. O'BRIEN: Okay.

MR. KEAN: In, you know, in the context of this schedule, of course, it's understanding what are the – what is the schedule, what is the time drivers, what are the unique sequences from a weather perspective –

MS. O'BRIEN: Mm-hmm.

MR. KEAN: – constraints and understanding the activities and the risk on the individual activities and how would those things influence the overall time output.

And normally, these curves would for – it's very important to point out, on this particular curve, many of the activities are weather dependent, and often times, on a cumulative probability curve, you have a flat period. Basically, it represents no activity.

MS. O'BRIEN: Okay, I'm just going to interrupt you. I'm going to give you a chance to go back to that, but right now I'm trying to get –

MR. KEAN: Yes.

MS. O'BRIEN: – some information to the Commissioner about how it's done, generally, right?

MR. KEAN: Okay.

MS. O'BRIEN: So you, you know, identify, understand the risk, then you see if you can transfer, allocate, mitigate, and to the extent that you can't get rid of the risk, shall we say, by other means, then I understand as part of this quantitative risk analysis, you try to come up with your best-case scenario in terms of dollars and costs – dollars or days and then your worst-cast scenario in terms of dollars or day? Is that correct?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay, and then it's that information that you – that works as an input into the Monte Carlo simulation?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

MR. KEAN: And risk could have different correlations. Some risk could have dependency on other risk and so on.

MS. O'BRIEN: Exactly, okay.

And so you try to do your best-case and worst-case scenario, and in some case, the best-case scenario might be if this – if we – this risk comes to arise, we may actually save money?

MR. KEAN: Of course.

MS. O'BRIEN: Yeah, and –

MR. KEAN: Risk is both threat and opportunities, although we think threat, but it is – there are plenty of opportunities that may be available that you need to be thinking of.

MS. O'BRIEN: Okay. So sometimes that risk has a best-case scenario that's –

MR. KEAN: Negative dollars.

MS. O'BRIEN: Right, okay. And then the worst-case scenario, I would assume, is always that it costs us something?

MR. KEAN: Yes, that's correct.

MS. O'BRIEN: Okay. And then you do the work. And is that exercise generally called risk ranging?

MR. KEAN: Not really, no.

MS. O'BRIEN: Okay. What do you call that when you put the –

MR. KEAN: I call that framing. Because –

MS. O'BRIEN: Risk framing?

MR. KEAN: – ranging really connotes not – you know, it's very important in risk to link back to what the risk event is. If as a result of something, it has an impact of – on one of the projects objectives. So we try to always anchor back to what those risk events are and try to understand how they may influence a work activity or a cost element.

MS. O'BRIEN: Okay.

MR. KEAN: And that's very important. Ranging sort of is – could be plus or minus, and that's not really the way it works. It's very – we try to be very systematic in thinking that through.

MS. O'BRIEN: Do some people refer to it as risk ranging?

MR. KEAN: Yes, there is techniques called risk ranging. I think there's an AACE standard practice –

MS. O'BRIEN: Okay.

MR. KEAN: – 41.R8 or something like that, that talks about that.

MS. O'BRIEN: Okay, but for when you're talking about it – when we're going to talk about putting the dollars and the day's best- and worst-case scenario, risk framing I understand is the terminology appropriate to use?

MR. KEAN: Yes, that is correct.

MS. O'BRIEN: Okay. All right, can we – we're on page 18. Let me just …

THE COMMISSIONER: Page 19, I think.

MS. O'BRIEN: Yes, page 19. I'm just going to go to the paragraph below here, if we could make it a little bit smaller now, Madam Clerk.

Could you please read this paragraph here, Mr. Kean?

MR. KEAN: "The QRA indicated … there was a low probability that a mid-2017 First Power date would be met. As such, the PMT recommended to Nalcor Executive that a provisional schedule reserve allowance should be made to account for the difference between the target date and the probable date. Given the desire to achieve the best possible date, Nalcor Executive wanted to maintain the Target Milestone Schedule, and thus no schedule reserve allowance was made to accommodate the residual risk exposure identified in the QRA. There was growing levels of negative publicity from those groups who were against the Project and with costs having grown from $5" to "$6.2B at DG3. In short, Nalcor Executive felt that the timing was not right to change the First Power date until the contractors' schedules were available and therefore a target date of mid-2017 for First Power was set, which would support the" –

MS. O'BRIEN: Can you continue, Madam Clerk?

Thank you.

MR. KEAN: – "Shareholder's public statements that power from lower Churchill River would flow to the Island in 2017, a date which had already slipped from the 2016 target envisioned at Decision Gate 2."

MS. O'BRIEN: And I'll get you to read the next paragraph as well, please.

MR. KEAN: "Revision B2 of the Target Milestone Schedule, published in October 2012 contained no schedule reserve; rather it highlighted the fact that the schedule was predicated upon a number of assumptions" that "were subject to change. A sensitivity analysis of" the "delayed first power impact on CPW was modelled by Nalcor Investment Evaluation and included in the DG3 Decision Support Package."

MS. O'BRIEN: Okay, I'm going to stop you there.

So we have had a fair bit of evidence already on the sensitivity analysis done. And when I first read this, I was a bit surprised to see it because I wasn't aware; we'd looked at the various sensitivities that were run at DG3 and didn't see any of them that had to do with schedule.

But I believe it's clear when I go to your footnote here, footnote 28 – and if we go and read that you're not actually – you're referring to a sensitivity not necessarily on schedule, you're referring to a sensitivity on the capex amount?

MR. KEAN: Yes, that's right.

And that goes back to my earlier point that when the documents were put together, you know, it could have used a good – more scrubbing to make sure things were accurate and consistent, the footnotes referenced and so on. But I left that to others and I had other commitments.

MS. O'BRIEN: Okay.

MR. KEAN: It was a raw dump of what I understood. This wasn't months and months of work to put this together.

MS. O'BRIEN: Okay.

So as – you're not aware of other – I just want to confirm, you're not aware of other sensitivities that we're not yet aware of here at the Commission of Inquiry. There's no schedule sensitivities that you're aware of.

MR. KEAN: No, I wasn't – as a – I wasn't involved in the economic analysis –

MS. O'BRIEN: Okay.

MR. KEAN: – piece.

MS. O'BRIEN: All right.

MR. KEAN: And I just – you know.

MS. O'BRIEN: Okay.

Just – sorry, Mr. Kean, I know you have a lot you want to say. I'm going to lead you through questioning. I know you want to address things with respect to the P1 schedule. I'm going to give you an opportunity to do that in your examination-in-chief, absolutely.

And to the extent that I don't ask you questions and you have information that's important to give, you're going to have your own counsel who is going to be able to ask you questions. So by the time you're all done you're going to have an opportunity to say anything relevant to the Commissioner.

MR. KEAN: No, that's – thank you. It's very important to get that opportunity.

MS. O'BRIEN: No, I do understand that.

Okay, so the – then further on in your paper here you talk about some of the work and some of the comments that Westney had made in its QRA work with respect to schedule. And I don't need to read the – have you read those out, but I just wanted to draw it to the Commissioner's attention.

Now, one of the things that came up, Mr. Kean, in Mr. Lemay's testimony – I'm just going to ask you to clarify this for the Commissioner because I know that when you were – I know you were initially anticipating sanction in September or October of 2012.

MR. KEAN: Yes.

MS. O'BRIEN: Okay and we –

MR. KEAN: That's what was in our team – internal team schedule that we were working to, yes.

MS. O'BRIEN: Yeah. So you are anticipating, sort of – I would assume you're – the idea was, you know, you'd be essentially starting on construction after sanction.

MR. KEAN: I – we were always planning to do early works construction at Muskrat Falls following environmental – release from environmental assessment.

MS. O'BRIEN: Okay, so your plan had always been to do at least some early works prior to sanction, but –

MR. KEAN: Early for the –

MS. O'BRIEN: – you wouldn't start in earnest, I guess, until sanction happened.

MR. KEAN: Major – particularly, once the sanction had occurred, it was a triggering point for the award of the critical path work, which was the mass excavation at the Muskrat Falls site.

MS. O'BRIEN: Okay.

MR. KEAN: And that was critical to maintain the overall timeline.

MS. O'BRIEN: Okay.

And when you – so when we look at this in rough numbers of months, when you were looking at first power in 2017 and sanction, you know, towards the very end of 2012 you're essentially looking at a 4½-year construction schedule. Is that fair?

MR. KEAN: Not from – I guess our intention was to start in about March of 2012 with – as soon as we could –

MS. O'BRIEN: Yeah.

MR. KEAN: – get the snow off the road to start with the work. So we had 2012, '13, '14, '15, '16 and you had mid-'17.

MS. O'BRIEN: So 5½?

MR. KEAN: That's right.

MS. O'BRIEN: Okay. So –

MR. KEAN: Or for the overall broader construction duration.

MS. O'BRIEN: Okay.

So when we had Mr. Lemay testifying before the Commissioner and he was talking about how he did his base estimate –

MR. KEAN: Yes.

MS. O'BRIEN: – he said that he hadn't been using Nalcor's schedule, he didn't have it. He kind of had developed his own schedule, you know, using his software, as part of his estimating work. And that he had based his schedule on a 48-month construction period, so that's four years. So that's a good bit less than what Nalcor was working with.

Can you explain for the Commissioner: Were you aware of that difference?

MR. KEAN: Yes, I believe there's an interpretation issue, to be quite honest with you.

The – in September of 2011 all the estimators had copies of the project control schedule that was produced by SNC's lead planner, Lee Stanton. So SNC prepared the detailed schedule – some excellent work – to support – so a 10,000-line-item activity schedule to support the dates. Paul and his estimating team had a very simplistic roll-up model to give overall timelines. That's currently in the basis of estimate today, actually.

And that four years that Paul's referring to, I heard from him, when I listened to his testimony, that that was in regards to sizing site indirects and which – there was occurred over a four-year period from the time of when the major – when CH7 powerhouse contractor started to – when they concluded was the period of time which all the site indirects were being covered and estimated separately.

And the period of time before that, which was about 18 months from the start of the access road through to the completion of mass excavation, those particular contractors were responsible for their own site indirects and it was included in the cost of those individual packages.

MS. O'BRIEN: Okay.

MR. KEAN: So that's how I interpret it. So Paul's schedule that he was using had a simplistic – one slide still aligned with that overall construction duration, but it was four years for that period of time that indirects were being covered holistically.

MS. O'BRIEN: But what about in that 18 months – like, for example, like, Nalcor would've had to have insurance on the site and –

MR. KEAN: Oh, yes. That –

MS. O'BRIEN: Like, that –

MR. KEAN: Yes.

MS. O'BRIEN: That wouldn't have been – for that 18 months, that wasn't covered in Mr. Lemay's –

MR. KEAN: Well –

MS. O'BRIEN: – estimate.

MR. KEAN: Mr. Lemay wouldn't have prepared the estimate for insurance in any event.

MS. O'BRIEN: Okay.

MR. KEAN: But let's say busing or ground transportation –

MS. O'BRIEN: Yes.

MR. KEAN: – or airfare.

MS. O'BRIEN: Yeah, let's use that one.

MR. KEAN: The cost for that was estimated as part of the access road contractor's cost –

MS. O'BRIEN: Okay.

MR. KEAN: – or the mass excavation contractor's cost. It wasn't kept out separately as a major cost, separate cost element.

MS. O'BRIEN: Okay.

MR. KEAN: It's the way that the cost estimate was put together, basically.

MS. O'BRIEN: Okay. So you're saying that for that first 18 months, year and a half, in the estimate it was covered in the – what you estimated those contract packages were gonna be.

MR. KEAN: Yes.

MS. O'BRIEN: And then for the four years that he used, it was put in the base estimate for that?

MR. KEAN: That's correct.

THE COMMISSIONER: So can I just –

MS. O'BRIEN: Yes.

THE COMMISSIONER: – just to follow that along. So would the base estimate then, at the end of the day, have included what those other contracts had in it as well?

MR. KEAN: Yes, it did.

THE COMMISSIONER: Okay.

MR. KEAN: All costs were accounted for in that regard. It's just a matter of which buckets they go in. Sorry.

MS. O'BRIEN: Can we go to P-00130 please? And so just – this is what we're looking at here. This is your –

THE COMMISSIONER: Tab 41.

MS. O'BRIEN: Yes, my apologies. This is the Gate 3 Project Cost and Schedule Risk Analysis Report. So we've already spent some time today looking at the Gate 2 one, this is the one for Gate 3. Can we go to page 8 please, Madam Clerk?

And so this is the document you were the – one of the primary authors – or you were the primary author on, is that right?

MR. KEAN: Yes, I was the primary – I was the author.

MS. O'BRIEN: Okay. So I wanted to go to this graph here because, you know, one of the phrases that we've heard here in this hearing a few times is time is money, and the relationship between schedule and time and dollars and cents. Okay? And so this is a – I believe it's going to be a useful graphic to give this explanation. It is in your – it is in the Nalcor document, but I understand that this graphic actually originally comes from Westney. Is that right?

MR. KEAN: That's a Westney graphic that I've adapted and modified for certain Nalcor presentations.

MS. O'BRIEN: Okay. And so I'm just gonna take – we know at DG3 that there was a 497 million management – or reserve, strategic risk reserve calculated following Westney's work. Is that right?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

MR. KEAN: At a P50 (inaudible).

MS. O'BRIEN: At a P50 level. And I'm just gonna use – I want to – for the – breakdown for the Commissioner as sort of how that works using this flow chart. So I – so, okay. So, here's how I understand it, and please let me know if I'm wrong.

So, what I understand is, you do this work, you discover your risks, you got a risk register, you discover them, and one of the things you do is you look at: well, what's our schedule risk here? And that was part of that work with – that was the curve we looked at, the – you know – the P1 curve, shall we say. The one – the time risk curve.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And so I understand you assess the time risk doing the risk framing, as you've talked about now, and one of the things that you do is you are able to produce that time risk curve that we looked at – that's one of the outputs from that work.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And, then, but – so, after you've done the time risk assessment, you also – there's an arrow down – it feeds down to strategic risk assessment. And, as I understand this – and please – I've learnt this, I think, primarily from you, so I hope you'll agree with me – that what you do at this point is you try to put a dollar value on the cost of those extra days. And what you're trying to do is – what are the carrying costs of the project for that extra day or that extra week or that extra month.

MR. KEAN: Well, it goes back to – yes. But –

MS. O'BRIEN: Yup. Okay.

MR. KEAN: It relates to the event that would trigger the time change.

MS. O'BRIEN: Yes, I understand that and I – and I'm not trying to oversimplify it, but I am trying to keep this fairly –

MR. KEAN: It's very complex.

MS. O'BRIEN: I understand it is.

MR. KEAN: I don't mean to be –

MS. O'BRIEN: No, that's fine. But, so I understand – so what you do at this stage here, for the time risk, following down this arrow, is you try to – you put dollars – how much does it cost to carry the project – and part of that you come up with an estimated – a probabilistic analysis. You come up with a P50 number for that and that's one of the dollars – it's one of the amounts of money that ultimately flow down to the – here you call it financial risk exposure – but this is the management reserve.

Right?

MR. KEAN: Yes. For strategic risk, that's the way it would flow, yes.

MS. O'BRIEN: Okay, and here it's called financial exposure. I have seen this graphic before and I think it's either called management reserve or strategic reserve.

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And then, for the – you do up for risks – when you're doing the dollar amount risks – so that was the time risk. Now we're looking at the dollar amount risk. You take those risks, you look at the tactical ones, you do your risk framing, as you've described, you do your Monte Carlo simulation down here, and you come up with a dollar value for contingency and this is the tactical contingency amount – the P50 or whatever confidence level you're working at.

MR. KEAN: That is correct.

MS. O'BRIEN: Okay. And then for the strategic risks, you also look at some of those that are not necessarily time risks but they're ones that can have a dollar impact – and you do the same thing. They feed into the strategic risk QRA and they also then, ultimately, trickle down and add to the management reserve, or the strategic risk reserve as it was set up by Nalcor.

MR. KEAN: Yes. And the characteristics of the type risk that would fit into each of those assessments are quite different.

MS. O'BRIEN: Okay. And can we go to page 287. So this is again from your document but I understand that this is actually taken out of Westney's work. Is that right?

MR. KEAN: Based on a –yes. It's taken – extracted from – that's actually a Westney presentation that's appendant attachment B14, I believe, of that document.

MS. O'BRIEN: Right. Sorry. Yes. This is in the appendix.

So here we see – this is here we get the 497 million that we've heard so much about. Right here.

MR. KEAN: The mean value. Yes.

MS. O'BRIEN: Okay and so I just wanted to confirm – so up here, the 184 million of this – that came from the work of looking at the time risk – the schedule risk – your assessment of what the overheads would be. That whole piece. That's what feeds in to this 184 million. Is that right?

MR. KEAN: Yes. It is.

MS. O'BRIEN: And then the other parts that make up the 497 are for a couple of other risks here which we'll come back to but – that had to do with productivity, skilled labour issues for wage and completion bonuses.

MR. KEAN: So, these go back to – if there's a slide before that, there are three principle strategic risks that existed at that point in time. Maybe it's up a couple more but, you know, that really – that we were exploring actively during that period.

MS. O'BRIEN: Yeah. I think they're right –

MR. KEAN: Yes.

MS. O'BRIEN: – there's these ones here. And then there's actually another one on this page.

MR. KEAN: Of course, at this point in time, there's quite a bit of work under way. And we were working heavily to mitigate those.

MS. O'BRIEN: And I wanted to go through that – my purpose of doing that was to try to explain – because there's been some confusion, like, how does schedule risk feed into a dollar amount so that's my –

MR. KEAN: Well –

MS. O'BRIEN: – was my purpose of leading that evidence.

MR. KEAN: Well, schedules are – you know, time, a delay, or an extension of time as a result of an event.

MS. O'BRIEN: Of course.

MR. KEAN: And that event may be the responsibility of various parties, so the costing of that event, that risk exposure, would be accordingly arranged and framed. So, it's very important to get into the details, which gets back to the risk allocation philosophy and so on.

MS. O'BRIEN: Okay. Thank you.

So, I'd like to – I'm just going to look at the time. Commissioner what time –? I'll keep going.

I'm gonna – I'd like to talk a little bit more, Mr. Kean, about the types of things that went in – the types of inputs that ultimately resulted in this 184 million of time risk. Okay? So these – this would be the types of overheads, the cost of keeping the project going for more days, that ultimately – you know, were the inputs that ultimately, after the Monte Carlo simulation spit out, or resulted in the 184 million, okay? Just to be clear about what I want to talk about.

Okay. Thank you.

So, I understand, we've interviewed you on this point, and I understand that when you did the original numbers for carrying costs of the project, that you had those estimates; they went into the DG3 numbers. I understand that in 2016 or 2017, when Nalcor was evaluating cost impacts of project delay, you did have an opportunity to revisit some of those numbers, is that right?

MR. KEAN: That is correct. You know, the site services have cost quite a bit more than originally expected at DG3, which is directly one of the key influencers on this cost item here.

MS. O'BRIEN: Okay. And I think you said that, you know, what actually turned out compared to the estimates you were using at this DG3 time, I think your busing numbers were a little bit low, for example, was –

MR. KEAN: Yes, our assumptions regarding the number of individuals that might be local residents and employ – utilizing busing was low. Thankfully, we have a lot more locals employed, but, you know, there is a cost for ground transportation, as an example.

MS. O'BRIEN: Okay.

MR. KEAN: We also had to employ firefighters, as we couldn't recruit volunteers from within the workforce. So that was a cost that, although our precedents on other projects was always to have volunteers, we weren't able to secure that. And so –

MS. O'BRIEN: So that wasn't – that's a cost that wasn't considered in this 184?

MR. KEAN: That's right.

MS. O'BRIEN: Okay.

MR. KEAN: So other things might be, the amount of site security you may need to employ.

MS. O'BRIEN: Turned out to be higher than what you anticipated?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And I understand you did not consider additional days of catering? Is that right?

MR. KEAN: Well, not in this because, at the end of the day, the time extension exists because (a) we miss a weather season and we are basically shut down. We miss a critical weather window and there's a period of no site activity. Or (b) time extension exists because of performance whereby it takes longer to actually execute the work. And that risk is owned by the contractor, and, as a result, they are also accountable for the catering cost.

MS. O'BRIEN: Okay.

There could be – I mean, I suppose other – just because a sequencing of events could cause to time delay, protests shut down the site, you could have schedule delay. I mean there's any number of things that could cause schedule to delay. Is that not right?

MR. KEAN: Yes, but in the magnitude of what the risk analysis – from the risk analysis perspective, what were the real time drivers is where I'm – I was anchoring back to.

MS. O'BRIEN: Okay. Scope change though, that could be (inaudible)?

MR. KEAN: No.

MS. O'BRIEN: Can't delay – scope change can't cause –?

MR. KEAN: That would be more in the aspect of tactical exposure, which – tactical risk.

MS. O'BRIEN: Okay. All right, but would you include catering in the tactical calculation?

MR. KEAN: Yes –

MS. O'BRIEN: Okay.

MR. KEAN: – we did.

MS. O'BRIEN: All right. So you didn't include –

MR. KEAN: But this time –

MS. O'BRIEN: – you didn't include catering. When you redid the numbers in 2016, 2017, were there numbers in there for catering – additional days of catering?

MR. KEAN: Not in that piece of work, no. It was an apples-to-apples comparison, I recall.

MS. O'BRIEN: Did Nalcor incur extra days of catering as a cost?

MR. KEAN: There had been extra days of catering that have incurred – been incurred as a result of additional person-hours being expended on site.

MS. O'BRIEN: Okay.

Now, I understand – was additional insurance, having to carry more insurance, was that included in the 184 million?

MR. KEAN: No, because the insurance policy, as I understand it, is based upon the total capital itself. The capital invested versus the duration of the policy.

MS. O'BRIEN: Okay. Do you have that as direct information? Sometimes I know – I, you know –

MR. KEAN: No, that was what –

MS. O'BRIEN: – just in construction contracts that your insurance on site – there's specific insurance you carry during the construction period –

MR. KEAN: Yeah –

MS. O'BRIEN: – that's what I'm talking about.

MR. KEAN: – because of the nature of the placement that we had, I recall that's what we were informed at that point in time. That may have changed over time, but that's what the original information we had.

MS. O'BRIEN: Okay.

What about financing costs –

MR. KEAN: No.

MS. O'BRIEN: – IDC, AFUDC?

MR. KEAN: No, it would not have been factored into that piece.

MS. O'BRIEN: Okay.

What about – I mean, obviously, we were doing this analysis, certainly in the CPW, the idea that, you know, Muskrat Falls first power in mid-2017, obviously, Muskrat Falls power – a delay in the schedule for Muskrat Falls power means that we have to continue burning oil in Holyrood and just keep the houses on the Island lit and warm. Was there any consideration in these numbers for the extra cost of keeping the Island grid going, cause by delay in the Muskrat Falls Project?

MR. KEAN: In these numbers that would've not considered that.

MS. O'BRIEN: So nothing in there for that?

MR. KEAN: No.

MS. O'BRIEN: No, okay. All right.

Can we, please, in this document, go to page 287, please? Okay.

Okay, I'm now gonna take a look – we just looked at the 184, now I'm gonna – I wanna look a little bit more at these other numbers here, the other three components making up the 497 million.

Could we go to page 17 of this document?

So, I believe I understand this correctly, Mr. Kean, but please do correct me, when you were working at DG2, I understand that you had a fairly extensive list of strategic risks that you had identified.

MR. KEAN: They were actually identified in 2008. So they – almost exclusively they were identified in the winter to spring period of 2008 with our initial engagement with Westney when I – we kicked off and really put a lot of emphasis on our risk work plan at that point in time.

MS. O'BRIEN: Okay. But were those risks then still considered as part of the Decision Gate 2 –

MR. KEAN: Some of –

MS. O'BRIEN: – quantitative risk analysis?

MR. KEAN: Some of them were. I don't know if all, but, of course, they would've had different risk exposure values –

MS. O'BRIEN: Sure.

MR. KEAN: – at that point in time because some of the fruits of our labour would've been – and our work would've been coming, you now, coming – we would've seen the benefit.

MS. O'BRIEN: And I think if we look at the DG2 risk document, just like right now we're looking at the DG3 one in the appendices there, there's a long list of the very strategic risks that were considered as part of that QRA at DG2. Is that not right?

MR. KEAN: There are 40-odd (inaudible) or 45 key risk of which a good portion of them would be considered strategic risk, yes.

MS. O'BRIEN: Okay, at DG2.

And then I understand that by the time you got to DG3, that you – that many of those risks you considered had resolved or they'd been mitigated or assigned and whatnot, and I understand it when you came down to the DG3 QRA analysis that you were doing, you had retired many of those risks and you were really focused down to three, you know, three significant strategic risks and those are the ones listed here on these pages of the report, page 17 and 18. Is that right?

MR. KEAN: Yes, a point of clarification. Some of them may have been not anymore considered strategic but might have been considered a tactical risk.

MS. O'BRIEN: Okay.

MR. KEAN: And – but as the end of – as we approached DG3, these were the big three, big hitters, if you would. The big three, we call them.

MS. O'BRIEN: And when you did the QRA analysis –

MR. KEAN: Those were the –

MS. O'BRIEN: – at DG3, these the ones that really drove that analysis?

MR. KEAN: These are the ones that are shaping, and this is, you know, a lot – I would point out, a lot of things are coming together at this point in time. So from a – that's our understanding at that point.

MS. O'BRIEN: Okay.

MR. KEAN: In the May, June period.

MS. O'BRIEN: Okay.

And so just – we're in this document here. What's the short form name that you use for this document? When you call it at Nalcor, what would you refer to this document as? The title? The document that we're in –

MR. KEAN: This is the QRA report, isn't it?

MS. O'BRIEN: You call it the QRA report. I'll call it that.

MR. KEAN: Sorry.

MS. O'BRIEN: Okay, so in this QRA report, then just above these documents here, you refer to: "Attachment B.7 contains the Key Risk Status Report, updated from the 24-May-2012 workshop." And you say here the review indicated the risk is predominately driven by these three key areas.

So this May – we're going to come back to it in a bit more – but this May 24, 2012, workshop, this is when you primarily did the risk framing work for DG3, is that right?

MR. KEAN: We would have been – principally, in that workshop, was a review with a number of people to discuss and talk about all of the key risks that were in that key risk status report and where we were.

MS. O'BRIEN: Okay.

MR. KEAN: Make sure to get the latest status updates. I would point out that this is not something that you pick up occasionally; it's an ongoing work plan that we're engaged in every day.

MS. O'BRIEN: Sure.

That was when the intensive part of the work was done?

MR. KEAN: Correct. To get a – to produce a QRA.

MS. O'BRIEN: Yes

MR. KEAN: You're focused on risk management, because it's a part of project management, but in order to quantify exposure, both cost and time, for a CPW or what have you, you go through an intensive process, a QRA process.

MS. O'BRIEN: Okay.

So I'm going to – like to look at some of the risks that were – that did not make this list of three.

Can we go to, same document, page 145, please? And I believe I'm going into, yeah, Attachment B.7 here. Okay, so that's the one that was just referred to. And this is the updated key risk status report from that workshop. I'm not going to look at all of them; there is a lot, but I'd like to look at a few.

So one, here, this is one that was considered retired – and I'm going to try to move my mic here a bit because it's – so the risk was identified as: "Organizational experience and resources for a project of this size." So that was the risk, and I'm just going to go over to the current status: "Risk is considered to have limited exposure to the project given the extensive mitigation efforts implemented since 2008."

So is it fair to say that this is a risk that you ultimately considered retired or dealt with, and you did not include it in the QRA analysis at DG3?

MR. KEAN: It wasn't included in the strategic risk analysis. There might have been some residual amounts included as part of the tactical exposure.

MS. O'BRIEN: Okay.

MR. KEAN: When it came to wage rates on staff, maybe.

MS. O'BRIEN: But you're not sure, but you just think there may be some elements of it still in the tactical –

MR. KEAN: Sure –

MS. O'BRIEN: – risk?

MR. KEAN: – you know.

MS. O'BRIEN: Okay.

And I'd like to look at some of the – you have the reasons here, the work that was done. Now, a couple I want to ask about. One is – one of the reasons you said – I'm assuming this is like the justification or the reason – "Project Executive Committee established (i.e. Steering Committee) and meeting regularly to address key issues."

So is it fair to say that that would have been one of the reasons that led you to retire this risk?

MR. KEAN: It would have been one of the considerations, I guess. It came back to the retirement was driven by the root cause of the issue, of the root – the risk itself, about we are, in Newfoundland and Labrador Hydro, taking on a megaproject in 2007. What do we do to – you know, it's a new venture. How do we make sure we're organized, prepared, have the organizational competency, structures and so on and recognizing that –

MS. O'BRIEN: Okay.

MR. KEAN: – which a steering committee is one element of.

MS. O'BRIEN: Okay.

Now, we did hear evidence from Derrick Sturge about – well, I don't believe a steering committee was created, but this – an executive committee was. Is that consistent with your understanding?

MR. KEAN: A steering committee was created.

MS. O'BRIEN: Okay. When I –

MR. KEAN: As a charter – it as a charter was issued.

MS. O'BRIEN: We haven't been – yet been able to find a finalized charter for that committee, but maybe we'll look again. You – do you have knowledge that one was finalized?

MR. KEAN: I know a charter was prepared, because it was put together under my direction at one point in time in 2007 or '08. You know, and I understand that, you know, that committee morphed into the executive committee.

MS. O'BRIEN: Okay.

Yes. I have seen a draft charter for the steering committee, but I haven't found a finalized one.

MR. KEAN: Okay.

MS. O'BRIEN: I may just be looking at your draft. Do you have knowledge that there's a finalized version?

MR. KEAN: If – well, I would point to the document control system if there was a finalized version, but …

MS. O'BRIEN: Okay.

We'll look again. I mean, you know, we have a lot of documents, so it's not impossible that we might miss one on a first review.

MR. KEAN: My – it might be a different name or something sometimes. I –

MS. O'BRIEN: Okay. We'll look for that.

MR. KEAN: Sorry.

MS. O'BRIEN: Mr. Sturge's testimony about this committee here was that nothing of real substance went to the committee. Is that – was that information that you would have been aware of when you were doing your analysis in May of 2012?

MR. KEAN: I don't – I really don't know the nature of Mr. Sturge's comment. What I do know is that the steering committee came out of the aspect of governance – project governance, and it had to deal with interfacing among the various business units and to ensure that, as an organization, we were interfacing it and interlinking on critical aspects of the project which we're trying to reflect even in the org charts you mentioned this morning.

So it was important that business priorities be aligned with – you know, from the various business units and organizational supports to ensure that people were aware and issues could be resolved, as I understand it. I didn't participate in the steering committee meetings myself. I was asked sometimes to provide information or updates. I may have presented at one or two, but you know –

MS. O'BRIEN: Okay, so you can't –

MR. KEAN: – I wasn't a normal attendant.

MS. O'BRIEN: You can't give us any comment on the effectiveness –

MR. KEAN: No.

MS. O'BRIEN: – of that committee?

MR. KEAN: Some of your later witnesses will probably give you better colour than I could.

MS. O'BRIEN: Okay, but Mr. Sturge was on that committee, wasn't he?

MR. KEAN: He would be on that committee, yes.

MS. O'BRIEN: Okay.

Another point that you make here, again: "Engagement of competent experienced contractors (known entities with the 'A' team)."

So one of the issues – you know, and this is a, I suppose, one of – you know, every time the organizational experience of Nalcor for megaprojects has come up, it's very common for people, you know, in government to have said to us – and other people as well – look, you know we took great confidence that they were hiring SNC-Lavalin. SNC-Lavalin had a lot of experience in hydro projects. That seems to be – have been an important factor for people.

But I understand that throughout, you know, throughout – from early – late 2011 right up through 2012, I understand that there was some concern at Nalcor that SNC had not brought their A team. Is that consistent with your understanding?

MR. KEAN: There was –

MS. O'BRIEN: Of the feeling at Nalcor – you know, Nalcor's position.

MR. KEAN: There was concern in areas, yes. And the – I guess the aspect here is the action is to engage the A team. So our strategy was to engage the A team. And yes, there was concern that not all the A team showed up, I guess. There were some weaknesses in areas.

MS. O'BRIEN: Okay, and in fact, at this time – sometime throughout 2012 – I understand that a decision had been made to switch the contract strategy from an EPCM strategy to an integrated management team strategy. Is that right?

MR. KEAN: That – yes, that's correct.

MS. O'BRIEN: Okay, and would you agree that that would be, like, a significant change in project strategy?

MR. KEAN: Well, the SNC contract was an EP plus CM, with the CM as an option.

MS. O'BRIEN: But to switch from an EP – because when it was awarded, it was awarded with the CM, right?

MR. KEAN: No, an EP plus CM, with – it was an option for a CM.

MS. O'BRIEN: But the option was used at the beginning?

MR. KEAN: No.

MS. O'BRIEN: Okay, well, we may have different testimony on that.

MR. KEAN: Okay.

MS. O'BRIEN: When the contract was awarded, you didn't understand that SNC-Lavalin, when the contract was awarded, was gonna be doing the CM scope?

MR. KEAN: You know, there was a basic premise, yes. But it was an option within that contract, and I understand there was some period of time, which finalized the option exercising.

MS. O'BRIEN: Okay.

MR. KEAN: But again, others that were closer to that can give you better colour.

MS. O'BRIEN: Okay, so there – you agree there was a switch being made from an EPCM to an IMT strategy?

MR. KEAN: Yes.

MS. O'BRIEN: Do you agree that that was a significant change in project strategy?

MR. KEAN: It was a change.

MS. O'BRIEN: No. I'm – and the question was: Was it a significant change?

MR. KEAN: It was –

MS. O'BRIEN: It's not the first –

MR. KEAN: – a necessary, significant change.

MS. O'BRIEN: Okay

So it was a significant change? Your point is it was necessary, but you acknowledge it was significant.

MR. KEAN: It was a necessary, significant change, yes. Yes, it was significant –

MS. O'BRIEN: Okay.

MR. KEAN: – too.

MS. O'BRIEN: So, you know –

MR. KEAN: Which didn't occur overnight.

MS. O'BRIEN: No, I understand. I understand it was a bit of a soft implementation throughout 2012.

MR. KEAN: And '13, yes.

MS. O'BRIEN: And early '13? Okay.

MR. KEAN: Yes, very much so.

MS. O'BRIEN: Okay.

So the question here is, look, you know, you know you have this major – like, you know you've got concerns – or from Nalcor's perspective have concern with SNC's performance. At this time, you're making this change to back away from having this, you know, world-renowned expert in hydro projects, SNC, doing the procurement piece and doing the contract management piece of the project. You're now taking that back into Nalcor.

And with all that going on, was it – you know, the question arises, was it reasonable, then, to say, look, we fully mitigated this risk, there's no – we don't need to take into account any dollar values for this strategic risk as we do this work for DG3?

MR. KEAN: I believe it was quite reasonable, because in the period of time of probably nine months before that there were some of those functions that are actually – were started to integrate because of certain business-process gaps within SNC-Lavalin. So, thankfully, we had expertise within our organization that were able to progressively fill those concerns and ensure the necessary business process and organizational resources were put in place.

So we saw that we had the strength from SNC-Lavalin from the engineering depth. That's never been an issue; a very competent, capable engineering team. It's been about some of the softer – the business processes, the integration of the various functions and so on and leadership gaps that we had concern with.

MS. O'BRIEN: The – I guess the point of the question is, look, it was still a live issue. You were – this was May of 2012 you were doing this work.

MR. KEAN: But –

MS. O'BRIEN: You were in the middle of the transition. You know, was it really fair to say, look, there's no risks to this?

MR. KEAN: I wouldn't consider – see this, in the context, it's not a broader strategic risk at that point in time, you know? It's a risk that exists. Your – it's largely materialized and been accounted for in the cost, in the way – and your action plan going forward.

We've already been delayed. We've utilized some of that time to ensure we're in an advanced state of readiness as we move towards that, towards sanction. And, you know, thankfully, some of the validation is, you know, we identified where the gaps were.

So I – you know, the residual exposure, you know, was captured in it from a largely, do you have enough people accounted for? Is your cost basis right? Have you considered living allowances and costs for that? We – you know, we felt confident about the people we were able to recruit locally, what SNC were able to provide and that we were integrating the business processes together.

MS. O'BRIEN: I'm just going to put one more question to you on this topic. You're looking at pulling away the procurement and contract management scope of work from SNC-Lavalin. Did you ever consider the risk that some of the senior people from SNC-Lavalin who you had on the project at that point might not be so interested in sticking around if their employer was downgraded from being the EPCM contractor to them just being part of a Nalcor-led integrated management team?

MR. KEAN: So we had a procurement manager who was a former procurement manager at SNC-Lavalin who was a Nalcor contractor. We had resources that we needed so that wasn't an issue or a concern.

MS. O'BRIEN: So you didn't consider that – that wasn't a risk that you considered.

MR. KEAN: We – our most important concern was creating a functional team where people respected each other –

MS. O'BRIEN: Okay.

MR. KEAN: – as a functional organization.

MS. O'BRIEN: All right.

MR. KEAN: And that was our focus going forward.

MS. O'BRIEN: Okay, thank you.

MR. KEAN: No matter what –

MS. O'BRIEN: Commissioner, this might be a good time –

THE COMMISSIONER: Take our break here now. Ten minutes.

CLERK: All rise.

Recess

CLERK: All rise.

Please be seated.

MS. O'BRIEN: Madam Clerk, can we please bring up the same Exhibit? P-00264, tab 14 – sorry, make sure I'm at the right –

THE COMMISSIONER: (Inaudible) tab 14?

MS. O'BRIEN: No, sorry – yeah, it was P-00130, page 145.

THE COMMISSIONER: Tab 41.

MR. KEAN: Thank you.

MS. O'BRIEN: And can you scroll down, please, Madam Clerk, 'til you find R8 in the table? Sorry – oh, if you start on page 145, and if you just scroll down there. We just looked at R1; I wanna go to R8, please.

Okay. Changes – this one risk was identified, Mr. Kean, as "Changes in Project scope resulting from maturing system integration / operation definition."

So, I think, the note on the far right says: "WHILE THE RISK REMAINS OPEN, THE EXPOSURE IS CONSIDERED VERY LOW GIVEN THE EXTENSIVE ENGINEERING WORK COMPLETED SINCE DG2."

So is it fair to say that this risk was not considered in the QRA for strategic risk?

MR. KEAN: At DG3 it wouldn't have been, but it – earlier it would have been.

MS. O'BRIEN: Okay, so not at DG3.

Can we go to P-00264, please? Should be tab 14. Okay, so this is one of your papers. Can we go to page 36, please? And I wanna look at the third paragraph from the bottom.

Can you just read out, Mr. Kean, that paragraph starting with: This reliability?

MR. KEAN: "This reliability review would be the first of two efforts made to reduce perception regarding potential weakness in the overhead transmission system; the second would come" – from – "following the PUB's *Liberty Review* of 2014" – through – "2016. While this first phase of optimizations was underway in winter – summer 2012, there was little opportunity to fully assess the impact on the broader capital cost of the Project given limitations of time available to support the July 2012 cut-off of cash flows to support economic evaluations. For … towers and foundations, themselves, the true cost impact would not be understood until the open-book negotiations with Quanta – Valard … 2014."

MS. O'BRIEN: Okay.

So I understood from this and from my interview with you that – we know that some changes in the scope were made because of the reliability review that had been done as a result of MHI's first report. Is that right?

MR. KEAN: Correct.

MS. O'BRIEN: And when I read this paragraph, and as I understood it from you, that while you knew there was gonna be some cost for those scope changes caused by that reliability review, they were not included in the base estimate for DG3 that was finalized as of July 2012. Is that right?

MR. KEAN: We added some tactical risk, and actually this statement doesn't relate to the other risk that we just read, just for clarity.

MS. O'BRIEN: Okay.

MR. KEAN: The other risk relates to system integration into other jurisdictions where you have the things that may go with a NERC compliance standards and so on.

MS. O'BRIEN: Okay.

MR. KEAN: So this is more – this is within scope – changes, tactical definition changes that I'm referring to here in this paragraph. So there – I guess, I'm just wishing to point out that the risks that you had read doesn't deal with the project's scope within the boundaries of it as it existed at that point in time. That was the interface and integration risk outside of Newfoundland (inaudible).

MS. O'BRIEN: Okay. I know – and I certainly – absolutely want you to clarify –

MR. KEAN: Yep.

MS. O'BRIEN: – if they're not related.

What I was trying to get at – was there any – I mean, we know that scope change can be a – when we read things about, you know, how project overruns generally – scope change is often identified as one of – in the literature – as one of the key drivers for cost overruns. Would you agree with that?

MR. KEAN: I fully agree with that and it was a very important focus of the team; hence, the strategy to award contracts with (inaudible) for construction drawings, if at all possible.

MS. O'BRIEN: Okay.

MR. KEAN: Yeah.

MS. O'BRIEN: And I understand that while the Muskrat Falls Project probably didn't – this was not a major – scope change was not –

MR. KEAN: No.

MS. O'BRIEN: – ultimately, a major driver of the Muskrat Falls Project. I understand there still was some scope change.

MR. KEAN: The Muskrat Falls generation site would be a great textbook example of non-scope change.

MS. O'BRIEN: Okay, but on the – let's talk about the LIL, there was scope change on the LIL.

MR. KEAN: LIL – the scope change on the Labrador-Island Transmission Link primarily related to the overland transmission – the transmission lines, if you would, the towers and wires component, if you would. And that was – there's no one thing that you'd point and say it was that. It's a lot of tinkering, you might say, to get – to bring up the optimization, you know, to – design optimization.

MS. O'BRIEN: Okay.

MR. KEAN: I shouldn't use the word "tinkering," but as an engineer I can sometimes use that.

MS. O'BRIEN: Okay.

Yes, so I understand there was, you know, while – my points, I guess, are one: Scope change is often a driver of cost overruns on megaprojects, generally. Do you agree with that?

MR. KEAN: It is often a driver, yes.

MS. O'BRIEN: Okay. It was not a – this is not – was not, ultimately, a significant driver for the Muskrat Falls Project.

MR. KEAN: No, it would – it is not, in any aspects of the project.

MS. O'BRIEN: Okay. But there was some scope change that occurred.

MR. KEAN: Yes, that's correct.

MS. O'BRIEN: Okay. And when you were – when you – I understand – scope change, would that often be considered something that was outside the project team's control and therefore strategic risk?

MR. KEAN: No, not if it was in the existing scope parameters of the project, as defined by estimate contingency. Only when you change the fundamental scope – say, you wish to change the overall system voltage or increase the overall transmission system bulk power movement capacity, would it be outside of project's team boundaries and really estimate contingency.

MS. O'BRIEN: Yeah. And that does sometimes happen on projects.

MR. KEAN: It does.

MS. O'BRIEN: Yeah. And that would've – in the way you were dealing with risk on the Muskrat Falls Project that was included. It would've been a strategic risk –

MR. KEAN: It –

MS. O'BRIEN: – between a tactical and a strategic?

MR. KEAN: It would've been an impact of a strategic risk materializing. That is correct.

MS. O'BRIEN: Okay.

And I understand that when you did the QRA for DG3, you did not include any amount for that strategic risk, a scope change strategic risk occurring. Is that right?

MR. KEAN: That is correct.

MS. O'BRIEN: Okay.

MR. KEAN: Any scope change we had identified would've been within project boundaries and captured underneath the tactical risk exposure.

MS. O'BRIEN: Okay.

And – but you didn't include anything for changes that were outside the current boundaries of the project?

MR. KEAN: That's correct. We didn't.

MS. O'BRIEN: Okay, so nothing.

And, yet, changes outside the current boundaries is often cited as one of the lead drivers of cost overruns on big projects, is it not?

MR. KEAN: It is but –

MS. O'BRIEN: Okay.

MR. KEAN: – the rationale therein, if I could, is that we were at 53 per cent complete on engineering.

MS. O'BRIEN: Okay, so you were –

MR. KEAN: So we're quite –

MS. O'BRIEN: – halfway done.

MR. KEAN: Yes, and with that, from an engineering perspective, you know, the overall strategies and philosophies and design premise documents and criteria are already established, and that's usually what precipitates change. So, from a perspective of design change risk, it was deemed to be low.

MS. O'BRIEN: Okay.

And my point is, though, would you not – you know, would you not think that that's a bit of an optimistic view to take on the Muskrat Falls Project, not to count anything in there for that type of strategic risk, given that it's one of the leaders on megaprojects?

MR. KEAN: It may be leaders on projects, but the strategic risks are meant to be reflective of the unique attributes and status of our project. And at that point in time we did not view it to be of concern.

MS. O'BRIEN: And ultimately, I guess, the big changes in project scope resulted out of the DarkNL work.

MR. KEAN: Yes.

MS. O'BRIEN: Yeah.

MR. KEAN: Expectations as to what – how long power can be out on the Island, I think, changed consumer expectations of what's acceptable.

MS. O'BRIEN: Okay, and that – those kind of changes you had not anticipated in doing your strategic risk work?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

The next one, if we could go back, please, Madam Clerk, to P-00130. Go to page 145. Yeah, I'm going to get you to scroll down, please, to R18 and 19, please.

Thanks.

So these are different but related risks. One is lack of support from other Aboriginal groups and the other is non-governmental organization stakeholder protests. And I – am I understanding correctly that you did – when you did your DG3 analysis – QRA analysis – you did not include any amount there for strategic risk that could result from a lack of support either from Indigenous groups or from other grassroots groups?

MR. KEAN: Based upon the status of the issue, it wasn't deemed to be a strategic risk.

MS. O'BRIEN: Okay.

MR. KEAN: So as you can see in the current status of the R18, there are – there is some exposure that's been – we consider that to be a tactical risk. And the reason for that, it was a strategic risk in 2008, but the work that had been done to get us to where we were led the, you know, the risk owner, who in this case would be Gilbert Bennett, to advise that, you know, based upon all being considered, we don't think we've got a – it's a major concern to us at this point in time.

MS. O'BRIEN: So there was nothing in for tactical or strategic that considered the risk of, say, protests shutting down the site? Is that right?

MR. KEAN: There were no time – there were no days or costs associated with protestors, no.

MS. O'BRIEN: You considered that not to be a risk?

MR. KEAN: No, we didn't.

MS. O'BRIEN: Okay.

But now, at this time, we know that the JRP panel had come out and they had recommended full clearing of the reservoir, and we know that that recommendation had not been accepted and that ultimately only a partial clearing was done.

And you were aware of that at that time, were you not?

MR. KEAN: I would've been aware of the status of things, generally, yes.

MS. O'BRIEN: And were you aware that the Grand Riverkeepers and other groups had challenged the Joint Review Panel's work in the federal court?

MR. KEAN: I recall something, but, again, Mr. Bennett was the focal point for this and would've given clarity as to where things would be.

MS. O'BRIEN: Okay.

We have an exhibit here, and I'm just gonna ask Ms. Ding if she can get me the exhibit number, and it's for a press release from the – about the Nunatsiavut Government, and this is coming out in – a little bit later in 2012, but the Nunatsiavut Government was expressing their unhappiness with what had happened with the clearing, and they were expressing concerns publicly about methylmercury during this period, were they not?

MR. KEAN: I don't recall.

MS. O'BRIEN: Okay.

There – we can bring up – there is an exhibit filed. The – they were looking for more research for – environmental research and, then, I think that Minister Kennedy, at the time, had agreed to at least talk to them. Was that at all familiar to you?

MR. KEAN: No.

MS. O'BRIEN: Okay.

Now, did you have a first site disruption maybe in the – towards the – in the fall of 2012 on this site?

MR. KEAN: Yes. Yes, I recall.

MS. O'BRIEN: Someone on the North Spur?

MR. KEAN: Yes.

MS. O'BRIEN: And they'd taken an axe to a pole or something like that?

MR. KEAN: Yes, I recall that incident.

MS. O'BRIEN: Okay.

So all this is going on pre-sanction. You know, in that context, in that environment, do you think it was reasonable to account zero for the risk of protest, disruption, lack of support from the grassroots communities and from the Indigenous groups?

MR. KEAN: So –

MS. O'BRIEN: I'm just going to ask that as a yes or no question. Do you see that – do you consider that reasonable?

MR. KEAN: I don't think I can answer with yes or no.

MS. O'BRIEN: How – why? It is a question you could answer with a yes or no. The question is: Given that environment, the question is do you think it was reasonable to assess that risk as – with a, you know, zero?

MR. KEAN: Again, I don't think I can answer with a yes or no in that regard, just from the perspective of the risk analysis was done in the May-June period based upon the information that was presented, the information that went to the economic modelling. And, I guess, from that perspective, I can only go by what the risk owner would have advised the team as to what we thought exposure was.

MS. O'BRIEN: So the risk owner being Gilbert Bennett?

MR. KEAN: Yes.

MS. O'BRIEN: And he told you to put in zero for that?

MR. KEAN: There was no – at that point in time, no residual exposure.

MS. O'BRIEN: Okay, but you are assessing risk.

MR. KEAN: Yes.

MS. O'BRIEN: Regularly, constant, daily, you know.

MR. KEAN: Yes.

MS. O'BRIEN: You're coming up to sanction, you're seeing what's going on in the community, what Indigenous leaders are – you know, the complaints that they're raising. Would it not have been reasonable to expect Nalcor to say: look, we do have some strategic risk materializing here; maybe we should be giving it some consideration?

MR. KEAN: So, from a perspective of, yes, we are assessing risk and managing risk ongoing, risks are quantified and put into numbers, dollars and time, you know, for major decision points, which would have been done in that summer period.

As to the particular status of that risk at that point in time and awareness, that's not something that I would have been engaged in, nor would I have known when we would be sanctioning the project to provide that insight, to be honest. So that might be a question best answered by Mr. Bennett.

My focus is trying to ensure we have a good process in place, get people focused on risk awareness and try our best to quantify residual exposure at discrete decision points.

MS. O'BRIEN: Okay so you can tell us that that – the exhibit I was referring to is P-01001. But you can confirm for us that the 497 million did not include any dollars for this risk.

MR. KEAN: It did not.

MS. O'BRIEN: Okay. Thank you.

And just one more strategic risk that I understand was not –

MR. KEAN: Excuse me.

MS. O'BRIEN: – was not considered but I just want to confirm that. The risk that a contract – major contractor failed on the project for whatever reason they – any reason, the financial reasons, they couldn't do the work, whatever, that there was a failure of a contract to perform, was that – that would be a strategic risk because it would be outside the project team's control? Is that right?

MR. KEAN: It would be considered a strategic risk, yes.

MS. O'BRIEN: So, like, a contractor goes bankrupt, for example.

MR. KEAN: Yes.

MS. O'BRIEN: Okay? Was there any consideration given in the DG3 QRA to that risk?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, in one of those – the three?

MR. KEAN: No, no.

MS. O'BRIEN: Okay.

MR. KEAN: But from a perspective of creditworthiness of contractors was a strategic risk identified –

MS. O'BRIEN: Yes.

MR. KEAN: – and which led through a work plan to identify a strategy to ensure there were creditworthy contractors and appropriate bonding and surety mechanisms put in place, and then looking at the residual exposure which was deemed to be low.

MS. O'BRIEN: For –

MR. KEAN: So –

MS. O'BRIEN: And ultimately assessed at zero, is that right?

MR. KEAN: Based upon money being transferred and absorbed in the base estimate to cover that risk. Because we were paying for – we pay for security means within the various contracts.

MS. O'BRIEN: You mean bonding?

MR. KEAN: Bonding or a letter of credit or other type (inaudible) guarantees – you know, structures that would exist, we would be compensating and giving consideration for that in the base estimate. So acknowledgement that you reduced the risk to the level that's as low as practical and provide provision for the cost of that reduction as part of your base estimate is the strategy.

MS. O'BRIEN: And you felt then you'd mitigated it completely such that it didn't need to be considered any further in the strategic risk analysis.

MR. KEAN: Based upon the structures and processes that existed and the guidance that came from the commercial manager and the finance manager – felt things were good.

MS. O'BRIEN: Well – but the answer to my question was, yes?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, thank you.

Can we look, please, at P-00130, page 135?

THE COMMISSIONER: Tab 41 again? I don't think it's in the report, but –

MR. KEAN: No, it's not in mine, this one.

MS. O'BRIEN: Okay, I just want to look – this is – we just talked a few minutes earlier about this work that was done in May 2012. And I understand that the risk workshop – so this was when you were really doing the focus work for the QRA for DG3?

MR. KEAN: This particular workshop, yes, doing the QRA, yes.

MS. O'BRIEN: Okay, thank you.

And I understand it was really done over a couple of days. Is that right?

MR. KEAN: Yes.

MS. O'BRIEN: And we have here the attendee list for day one. It seems to be – well, there was two things done on day one: One was a Muskrat Falls tactical risk session, and that was done in the morning; and then it looks like in the afternoon you did tactical risk for the LIL and the LTA, so the transmission?

MR. KEAN: Yes.

MS. O'BRIEN: And then on the second day there's an attendee list for key risks. So on this second day, would that be when you were looking at those – the strategic risks and ultimately winnowing them down to those three key strategic risks?

MR. KEAN: That would've been part of what occurred in that second day, yes. Then there would be talking about those risks, for instance, that were in Nalcor's responsibility outside of the EPCM consultant; maybe things like EA or Aboriginal Risk in general.

MS. O'BRIEN: And what about the risk of SNC-Lavalin?

MR. KEAN: Yes, of course.

MS. O'BRIEN: So that you were discussing –

MR. KEAN: And our owner's team, you know, as that regard, you know, and costs and exposure therein and on the marketplace for people.

MS. O'BRIEN: And that risk that you were discussing about SNC-Lavalin, did that have to do with SNC-Lavalin's performance?

MR. KEAN: It would've dealt with, generally, about – one of our key risks early was about the, you know, securing design resources and so on. So I'm sure we had a – I can't recall the particulars, but it would've included consideration of that during that workshop and the discussion.

MS. O'BRIEN: Like the performance to date on the –

MR. KEAN: Well, generally those things would've been discussed in any event. This – all the groundwork is done over months and months.

MS. O'BRIEN: I understand but –

MR. KEAN: Yes. Yes.

MS. O'BRIEN: – the answer is yes to my question?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. We could go faster if we started with the answer.

Okay, so I just want to be – to clarify. So on this first day, day one, this is when you'd be doing some of the risk framing and for the tactical risk coming up with the best-case, worst-case scenarios, right?

MR. KEAN: We would be discussing risk events.

MS. O'BRIEN: Okay.

And would you be putting dollar values to those there too?

MR. KEAN: We would be –it would start out with the scope owner giving a presentation of status.

MS. O'BRIEN: Okay.

MR. KEAN: Talking of risk events, trying to understand how risk events could be correlated based upon all the risks that were unidentified on our risk registers, and then for – seeing to try to come up with a dollar figure on that.

MS. O'BRIEN: Okay.

MR. KEAN: High and low, yes.

MS. O'BRIEN: Yeah.

And here, I know –

MR. KEAN: Most likely in best-case things.

MS. O'BRIEN: Yeah. Okay.

MR. KEAN: Best and worse.

MS. O'BRIEN: And, here, I know it says it's the tactical risk sessions. And I do note that Mr. Lemay is here from SNC-Lavalin, he's listed here. And the reason I'm bringing this up – think he's also on – you know, on the afternoon session on the transmission – because I believe I had put to him the question as to whether he was involved in doing any of that pricing. And my memory of his evidence anyway is that he said he wasn't, but he's listed here as an attendee on that session. To the best of your memory, was he there?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

MR. KEAN: Behind that is the wet signature pages.

MS. O'BRIEN: Oh yes, right. Right, so we actually have – so he actually signed in. Maybe it's before.

MR. KEAN: No. No, after.

MS. O'BRIEN: Okay, so somewhere here in this document, we have a signature?

MR. KEAN: Down two more pages, I think.

MS. O'BRIEN: Okay. Thank you.

MR. KEAN: Three, sorry.

MS. O'BRIEN: Okay, here we go. So he had signed in.

Okay. So to the best of your knowledge, he was there participating in this activity on the tactical risk at least to put some dollar amounts around it?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

Now, when we go back to the strategic risk session on day 2, I – there's nobody here from SNC-Lavalin. Why would they not be there?

MR. KEAN: That's back to the risk management plan and the allocation of responsibilities. SNC-Lavalin's scope was not in the world of the key risk. Where there was information required from SNC-Lavalin, that would have been acquired and used as part of the input into that session.

MS. O'BRIEN: Okay.

Would – I mean, put the question here – I mean, SNC is there. They – we know that the experience on hydroelectric projects from – on the Nalcor side of the team was somewhat limited. I know there's debates about how much, but many of these people had never worked, you know, prior – in a previous hydroelectric project. Is that not right? The people who were here?

MR. KEAN: I don't know all the details of their experiences right now, to be honest.

MS. O'BRIEN: Okay.

Do you know if there's anyone there who had significant hydroelectric experience? The only one I'm aware of, I can tell you, as I understand, Ron Power had some. But do you know if there is anybody else?

MR. KEAN: Well, Rob Henderson, as an example.

MS. O'BRIEN: Okay.

MR. KEAN: Would have been Paul Humphries there, as an example.

MS. O'BRIEN: Okay.

MR. KEAN: Would have been deep – these guys – and Kyle Tucker – would have been deep experience –

MS. O'BRIEN: (Inaudible.)

MR. KEAN: – in hydroelectric (inaudible) –

MS. O'BRIEN: These are all people from Newfoundland and Labrador Hydro experience?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

Would it – you know, the question, I guess, is if – you know, one of the reasons you were bringing in SNC is because they had a, like, say – let's say a deeper well of that type of experience. Why not include them on this strategic risk –

MR. KEAN: 'Cause –

MS. O'BRIEN: – day?

MR. KEAN: – if you look at the risks that were being discussed at this point in time, they weren't areas that you needed actually – hydro experience for.

MS. O'BRIEN: Okay.

MR. KEAN: Where we needed the – you know, rather than use them in this workshop, they were out preparing a lot of the material that would be prepared, such as the time model and the schedule-risk work that would feed the overall assessment of the time exposure. So their head planner was involved in that, as an example – Lee Stanton – and some of the support planners to do the work there. So, where required, they were asked for input.

So in that regard, the nature of the risks that were being discussed, and back to the allocation of responsibilities, SNC-Lavalin was our consultant. We drew upon them as we deemed – as we felt appropriate.

MS. O'BRIEN: Okay.

All right. Can we please go to P-00894, please? I think this might be the one I've got a typo in.

Yeah, I think I got it right here.

THE COMMISSIONER: Tab 15?

MS. O'BRIEN: Yes. Sorry, Commissioner, tab 15.

THE COMMISSIONER: Yeah.

MS. O'BRIEN: And can we go to page 19, please?

So we've had lots of evidence now that the – at DG3 there was a 497 million or a 500 million strategic risk reserve. I just want to go down to – are we on page 19?

There is – and I'm sorry, I'm having a little trouble seeing. There is – I'll maybe ask if Ms. Ding can find the reference quickly, but there is a reference here where you say in this paper that if you had used a P75 at the DG3 QRA and had used – considered tactical and strategic risk, that the cost would have been not 6.2 billion but 7.5 billion.

And I'm sure Ms. – we'll be able to get the reference quickly.

MR. KEAN: So that's –

MS. O'BRIEN: Do you recall that sentence though, or that statement?

MR. KEAN: Yeah. It's a hindsight and the –

MS. O'BRIEN: Sure.

MR. KEAN: – basis of the number is the P75 at – P75 all-in cost-risk curve with – showed 6.7 billion at DG3. When you consider your escalation allowance of 361 million, I believe, it was – worked out to be 7.1 billion. And then you consider – that 7.5 is arrived at doing a retrospective look, comparing it with the current 10.1.

MS. O'BRIEN: Okay.

MR. KEAN: So time and value of money had been given consideration in how the escalation needed to factor into, which works out to be an incremental 400 million.

MS. O'BRIEN: Okay.

And I just –

MR. KEAN: So P75, at that point in time, would have been – if we were picking P75, it would have been 7.1, just for clarity. But in comparison with today's 10.1, it would be 7.5.

MS. O'BRIEN: Okay.

Yes, it's the bottom of page 21. Thank you very much, Mr. Learmonth.

That's the sentence I was referring to. There you go. See, it's in bold.

Okay. So I just want to clarify. So when you did that number, you would have been doing the same – using – when – to come up with that number, the 7.1 in – if we bring it back to 2012 dollars, and – which I understand that's what your evidence is, right, 7.1 in 2012 dollars?

MR. KEAN: 7.1, not only in 2012 dollars, but as planned with the planned outlay of capital.

MS. O'BRIEN: Okay.

MR. KEAN: Which is important from escalation – what I mean by that is if you're planning to execute a piece of work this year, well, it's going to cost more if that work gets delayed, because labour costs more.

MS. O'BRIEN: Okay.

And I just want to clarify that when you're coming up with these numbers, you're using the same QRA work that was done by Westney in 2012. Is that right?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. So the same three strategic risks would've been – would be considered?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, same mid-July 2017 first power date?

MR. KEAN: The 7.1, yes.

MS. O'BRIEN: Okay, same operating and maintenance costs that you had used back at DG3?

MR. KEAN: Well, that doesn't factor into this piece, the operating and maintenance cost – sorry, into the capital.

MS. O'BRIEN: Okay, yes, fair enough. And the same assumptions for overhead costs of the project that we talked about earlier?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, and no interest –

MR. KEAN: Correct.

MS. O'BRIEN: – during construction. Okay.

And on the operating maintenance costs, I just wanted to take you to – we heard from – the Grant Thornton report highlighted it. They reported that there was a 34 million annual operating maintenance cost for the Muskrat Falls Project used in the CPW analysis at DG3. Were you aware of that information?

MR. KEAN: I wasn't aware of what was in the CPW modelling. I was aware of operating costs because my – I had actually provided – been the conduit to provide those to Nalcor Investment Evaluation, so …

MS. O'BRIEN: And what number had you provided them?

MR. KEAN: The first indicative number, which originated from Mr. John Mallam, was 34 million and was provided in early May. Subsequent to that, there was some optimization being done under – by Mr. Rob Henderson and others to look at and make sure it really aligned with the strategy that was being planned. Those were subsequently provided on July 27, 2012.

MS. O'BRIEN: And –

MR. KEAN: And I think that was around 27 million.

MS. O'BRIEN: So lower?

MR. KEAN: Yeah, so I – from the Grant Thornton report. I just knew when we get the Gate numbers. I don't really know what – you know, what – I'm assuming 34 must be what's in the model based upon what was stated there, but I have no knowledge.

MS. O'BRIEN: But you know that in July of 2012 you actually provided Investment Evaluation a lower number of 27 million?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. And we can follow up on that.

And am I – just to be fair, I understand – we know that there's been – that Grant Thornton, certainly, has reported, and I believe it's been confirmed, that there's been an escalation in those numbers.

MR. KEAN: Sure.

MS. O'BRIEN: Right now, the current estimates are fairly – you know, are quite a bit higher. But I understand you don't have any knowledge about the current estimates for operation and maintenance?

MR. KEAN: No, I wouldn't have been involved in anything after that.

MS. O'BRIEN: Okay.

And I think that Mr. Mallam had testified he did not provide the 34-million number; he remembered providing a lower number. But I understand you've given a very specific date there. You – there's an email that identifies that 34 million coming from Mr. Mallam?

MR. KEAN: Yes, the project records describe that in detail.

MS. O'BRIEN: Thank you.

Can we go to P-00506, please?

THE COMMISSIONER: It's not there.

MS. O'BRIEN: Actually, I'm going to get back to that in just one minute.

Before we do that, could we quickly go to P-00817? This is following up with something Mr. Kean and I said we'd do – take a look at, at the break. Can we go to P-00817 – and can you go to page 14 please, Madam Clerk?

You were talking about recalling doing a slide that you believe went to MHI.

MR. KEAN: That one.

MS. O'BRIEN: Is that the slide?

MR. KEAN: Yeah.

MS. O'BRIEN: That's the slide – so, slide number 12 of the deck here.

MR. KEAN: Yeah that slide was used quite a bit –

MS. O'BRIEN: Okay.

MR. KEAN: – for different presentations.

MS. O'BRIEN: So you – to your knowledge, you'd put that in the slide deck to give to MHI?

MR. KEAN: I delivered the presentation to MHI.

MS. O'BRIEN: Okay, well we have – if we can go – we have some information that shows that that slide might have been removed. So could we see P-00818, please? So this is slide 12 of this deck. So this is an email from Mr. Harrington to Brian Crawley saying, "Brian I have taken slide 12 out of the deck you sent me - I do not believe we actually shared this with MHI Paul."

Do you – so slide 12 and these are the same decks – slide 12 is the one you just identified. Do you have any knowledge as to whether that slide was removed before the presentation was given to MHI?

MR. KEAN: No I don't. I – the meeting occurred on the 17 and 18 of June, I think 2012. I prepared the deck, after the meeting I sent a copy to Brian Crawley for distribution.

MS. O'BRIEN: Okay, so do you have any knowledge of Mr. Harrington saying he took slide 12 out of the deck?

MR. KEAN: No.

MS. O'BRIEN: You don't have any knowledge? Okay, thank you.

Now, if we can go back to P-00506 – I know you've already got it up there, Madam Clerk, thank you. Okay, I'm just gonna go to the bottom email here. So you're not on this email chain, Mr. Kean, but you are mentioned in this email chain. So I wanna take you to that; and this is from Mr. Harrington to Derek Owen – it's been reviewed already in the hearing room.

But it starts off with Mr. Harrington was generally not pleased that Mr. Owen had brought up – it's down here – the P1 schedule before Mr. Martin at the IPR report.

But he says, "Derek I may have missed your call today, I've been tied up on preparations for the MHI visit tomorrow and the rest of the week. If we need to get folks together to talk about the characterization of schedule reserve for MF and LIL then let's do that. Ed and Gilbert are on board with this and understand … the target schedule is just that and something that has low probability (jason is having the schedule analysis updated)." And he says, you know, it's "something we motivate the … team" on.

And then I believe up here he refers to rerunning the – somewhere here, I'm having a little trouble seeing – he refers to rerunning the analysis at some point.

Did you rerun – so this is happening in early September 2012. The work that the IPR had looked at was the Westney QRA work that was done, I believe, that summer, is that right?

So did you rerun the analysis, then, in September of 2012?

MR. KEAN: We reran the analysis to reflect the change in schedule logic and the benefit of the schedule de-risking activities that we were able to successfully do that summer.

MS. O'BRIEN: Okay.

MR. KEAN: And that demonstrated that, on a P50 basis, we had pulled that number back – the first and full power – by two months, effectively. And –

MS. O'BRIEN: If we go to P-00030, page 16, please, Madam Clerk. This is your QRA report. Should be up there, P-00130. Probably – yeah, I forgot the one.

P-00130, page 16. Okay.

Can you just read what's written here in the paragraph below the table, please?

MR. KEAN: Yeah. "It was decided in September 2012 to revisit the May time-analysis using the latest available information on the Project. To this effect, the May time-model was" – unaltered – or was "altered to reflect some logic changes on the front-end infrastructure phase, while new information regarding the infrastructures works was incorporate including current progress, and the timing for award of Mass Excavation Contract CH0006 was reaffirmed. Attachment B.15 contains the revised time-model as well as …" – the current view on the ranges of some activities.

MS. O'BRIEN: And the beginning of the next paragraph, please?

MR. KEAN: "This," – excuse me – "This updated time-modelling revealed limited change on the overall …first and full power dates, despite having a more definitive front-end schedule, thus reaffirming the information presented in Figure 6, that is the powerhouse concreting and associated weather windows is the most significant influencer of the risk adjusted schedule."

MS. O'BRIEN: And so here's Figure 6 here. Okay.

MR. KEAN: That's factual.

MS. O'BRIEN: Pardon?

MR. KEAN: Yeah, that's correct, but –

MS. O'BRIEN: Okay. This is factual. And I think you refer to B6 – B15 but I believe it's B16 when we get to it – and I'll bring you there now. Can we go to page 320 please? So is that – was it supposed to be B16?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And so here we see some emails back and forth. So this is September 6.

MR. KEAN: Yes.

MS. O'BRIEN: So this is from Jack Evans and he's with Westney?

MR. KEAN: Yes.

MS. O'BRIEN: And so is this when you were doing the – this – rerunning the schedule risk?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. So he says, "Jason, Attached is the latest Time-Risk model and ranging sheet. The deterministic duration for Task 28 was adjusted from 20 days to 23 days to make the project end date equal December 12, 2017. … Here are the preliminary results for Full Power: …."

And I – he notes here that for full power for December 2017 – which I understand, in your original, it would have been first power in June, full power in December.

MR. KEAN: Yes.

MS. O'BRIEN: He says it's now a P3.

MR. KEAN: For full power.

MS. O'BRIEN: Yeah.

MR. KEAN: That's correct.

MS. O'BRIEN: So that was – but that – in the initial run when the schedule was deemed to be P1 –

MR. KEAN: That was first power.

MS. O'BRIEN: First power was in June.

MR. KEAN: Yes, the P1 was referenced in first – for first power, when first power would have occurred.

MS. O'BRIEN: Okay. But the full power date at that time was still deemed to be December, right? It didn't really change very much, did it? This –

MR. KEAN: It did actually on a P50 basis. The analysis –

MS. O'BRIEN: From P1 to P3?

MR. KEAN: No. So P1 is referring to first power. This is full power here.

MS. O'BRIEN: Okay. Well we can –

MR. KEAN: There's a different distribution, I guess, in that regard.

MS. O'BRIEN: Okay. Well we can go to the work that was initially done. That would be in B14 of this exhibit I believe. If I'm remembering the time – it may be B12, so you'll just have to bear with me for a moment.

It's gonna be maybe B12, B13, one of those. But it is important to get clarity on this, so. Okay, so this was the one now. We know in this one that P1 is not identified on this. And we'll come back to that. But it was in the slide that we looked at earlier that you had in your –

MR. KEAN: Yeah.

MS. O'BRIEN: – paper.

MR. KEAN: Now this is LIL, LTA, just for reference.

MS. O'BRIEN: Okay. Oh, yes. Okay.

So Muskrat Falls Island Link. Okay, so this was the first power and –

MR. KEAN: First power.

MS. O'BRIEN: This is first power, and so the P1 has been removed from this box, and we will talk about that. But here we see that when we try to find June '17 on this we're, you know, we're down here. So we're quite low. So that would be the P1 number.

MR. KEAN: It's very low probability.

MS. O'BRIEN: Okay. And so, I believe, here this would be the full power?

MR. KEAN: That's correct, yeah.

MS. O'BRIEN: Okay. And still December of – you know, there's January '18, so December –

MR. KEAN: Yeah.

MS. O'BRIEN: – that was, you know, I don't know what you call that. What would you call that, a P …?

MR. KEAN: It's a low probability.

MS. O'BRIEN: It's under P5, right?

MR. KEAN: When I said two months, I'm referring to the P50 basis, the P50, and the predictive range – as Westney (inaudible) is in this P25 to P75 ban. So, my reference to the aspect of expected headroom, we put – the de-risking efforts had actually removed two months.

MS. O'BRIEN: Okay. But Mr. – the fellow from – Mr. Evans from Westney was saying: Look, when we make these changes, we're still down to a P3 schedule.

MR. KEAN: Oh, I'm not debating with you that from a low probability of achieving that end of '17. I'm talking about actually the overall shape of the curve and how the benefit of it changes when you look at P50 being the expected amount. So –

MS. O'BRIEN: Okay.

MR. KEAN: So from changes we saw that from – we could – the change of the positive work that we had made resulted in a couple months opportunity being realized.

MS. O'BRIEN: Okay. And –

MR. KEAN: But it still showed a significant amount of risk that needed to be understood.

MS. O'BRIEN: Okay, and that report – that email we just saw that referenced the P3 at page 320 – can we just quickly go back to that, because I'd like to check a date?

So Mr. Evans email was on September 6, 2012. Can we bring up P-00830, please?

And I think this was, sort of, in – I don't know, it says it's at around 4 o'clock p.m. Newfoundland time.

Here we have another email from you. The top of the email chain is the next day. But it looks like you wrote Keith back – or you wrote Keith, sorry, a bit earlier. Looks like later the same day – the email we just looked at.

Can you just read this paragraph out, please, the one starting at: Jack and I?

MR. KEAN: "Jack and I have connected over the past couple of days in effort to help me validate if our current" schedules "status and view of the near term schedule (e.g. award of mass excavation, camp, etc.) would influence the time-risk analysis completed in May. My speculation was that our base schedule would now be a little higher that the P1 indicated in May, while the P75 would of remains as projected in May" – would have remains, I guess. "Our recent analysis has not confirmed what I speculated. But it has been a useful exercise to test some assumptions."

MS. O'BRIEN: Okay. So – and, then, can we please go to Exhibit P-01051?

Now, on the work that we just looked at, remember I said that little box at the top, it no longer has the P1 in it?

MR. KEAN: Yes.

MS. O'BRIEN: Okay?

MR. KEAN: Yeah.

MS. O'BRIEN: And do you remember when you – we look at the copy that you had put in the paper that you prepared in November 2017 after the Commission – there was a P1 there indicated in the July 2017 date.

MR. KEAN: Oh, okay.

MS. O'BRIEN: Do you remember that?

MR. KEAN: It must have came out of the draft report, I guess.

MS. O'BRIEN: Yes, there was a few drafts and we had noted that that P1 had been removed.

And I just see here – so now we're a little while later on the 17th. And can you just read here what you wrote to Mr. Dodson of Westney on the 17th of September?

MR. KEAN: "Keith,

"I have a few more comments from Paul on the report you prepared (see attached) and that I indicated was final.

"Once you have reviewed, I suggest we connect to work out an agreeable way-forward."

MS. O'BRIEN: Okay.

And so on this report – just take for me for a moment that the P1 had been removed from that little box. And can you just read what Mr. Dodson wrote back to you?

MR. KEAN: "Jack and I will work on this tomorrow AM. We have a few points: 1. Changing the concept to management reserve instead of owner's contingency leaves you exposed to a lender's engineer demanding an owner's contingency on top of the estimate and the management reserve. That is not abnormal."

MS. O'BRIEN: And number 4?

MR. KEAN: "We do not like removing the schedule box, but will not fight it."

MS. O'BRIEN: So is that a reference to a request to move that – remove that P1 from the slide?

MR. KEAN: I don't know for certain but … I don't know what the comments are behind, sorry.

MS. O'BRIEN: Okay, do you remember the P1 being removed in the drafts between these emails?

MR. KEAN: Yeah, I do remember the P1 being removed.

MS. O'BRIEN: Okay, and do you remember that being at the request of Mr. Harrington?

MR. KEAN: No, I don't remember it was at the request of Paul or me, to be honest with you.

MS. O'BRIEN: But one of you?

MR. KEAN: Yeah.

MS. O'BRIEN: Yeah.

MR. KEAN: The premise for that was that we had – Westney had always indicated that the tails on both ends of the distribution were very scattered and very unpredictable. So I struggled to understand why we would be marketing the schedule as a P1, it's better to use a range or something. That's – that was my issue with it, I guess.

MS. O'BRIEN: But you use a P50.

MR. KEAN: Yeah.

MS. O'BRIEN: You use a P25.

MR. KEAN: Much different. It's very –

MS. O'BRIEN: Okay.

MR. KEAN: In the nature of this modelling, the centre of the band is much more accurate. It's – it was no debate that it was a low probability. I mean, whether it's P1 or P5 or P8, it's –

MS. O'BRIEN: It's all very low.

MR. KEAN: You know, from the perspective of without certain mitigation measures. So, you know …

MS. O'BRIEN: Okay.

MR. KEAN: I haven't shone away from that.

MS. O'BRIEN: Okay.

Now, I – Commissioner, I'm fine to keep going for a bit, if that's okay.

THE COMMISSIONER: Okay. Is the wish maybe we'll go to 5 today, anyway, and then maybe start at 9 tomorrow to try to hopefully ensure we get out of here at a reasonable hour tomorrow evening.

I'm seeing heads shaking, yes, so let's do it.

MS. O'BRIEN: Okay, thank you.

Mr. Kean, I know that you – this P1 has been an issue of concern with you and I said to you earlier that I would, you know, give you time to speak of it. I know that you did a follow-up interview with some of our Commission associate counsel on November 1, which was just last week, and you did address that.

And can you just explain what the issue that you were raising with them, or the issue you wanted to raise?

MR. KEAN: Yes, it's very important. I'm the first witness from the project team. There's, you know – I'm representing a lot of people that done a lot of good work.

My major point is, basically, July 2017 is not something someone pulled out of thin air. It's based upon detailed schedule work that's been done by very credible people with lots of experience in that area.

The schedule risk analysis that was identified, identified quite a bit of time exposure, as we've just seen. And that was – we're only driven by, as we said, weather and production rates. And, unfortunately, if we could show it, you'll see that it could be something that we could miss a day, a weather calendar day, and end up with no activity in that schedule for six months because you can only place, let's say, roller-compacted concrete, we say, up 'til the 15th of October. You need to get that done before you can start your next activity. You don't hit that, during the modelling, there's a flat period. And when we – so the model really reflects that.

So what I've always said to people is that you need to give consideration that this is not absolute science. It's very complex. We try our best. Please take the centrepiece of this to give you an idea of the exposure. One thing that – you know, the reason we thought it was very reasonable and obtainable is because (a) the work that was done, the production rates were benchmarked with – and deemed to be acceptable, you know, based upon other projects. And, you know, when I look back at it – and a thing that we didn't look at in the scheme of the risk analysis, is that we did include an allowance for non-productive time, a 15 per cent non-productive time, which we didn't consider in the time analysis.

So from that perspective, you know, in the balance of whole and looking at things, what we said is that the schedule has an amount of risk built into it. There's a lot of unpredictabilities when we're trying to model this. We've done some good work to de-risk it, we feel confident in the plan we put together, this 10,000 line-item plan; however, there's risk, a lot of it driven by weather and performance. We just need the people to acknowledge that.

But what I've struggled with is people harping on P1. It's not that much science into it. We try our best but, you know, it's very unfair, I think, to be making such suggestions. What I'm – what is important – because the people that did a lot of good work deserves a credible plan that had a lot of stressors; some outside Nalcor's or the project teams control.

And the key is that that is recognized and that provisions are considered for that and that through the balance of whole if things worked out, if we could do the things that we had proposed from de-risking, we could certainly increase the probability of achieving power in '17.

MS. O'BRIEN: But whether it's P1 or P5, I mean, you acknowledge that the schedule was a very aggressive schedule. Low probability of being achieved based on the analysis that you had done prior to sanction.

MR. KEAN: If these strategic risks were to materialize, I would condition that.

MS. O'BRIEN: Right, based on a P50 value?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

MR. KEAN: Yeah.

MS. O'BRIEN: And only the strategic risks – the three strategic risks that you'd actually considered in your QRA?

MR. KEAN: Well, those are the ones from a time perspective, yes.

MS. O'BRIEN: Okay.

And now, I do note that you did say in your – you mention this 15 per cent and I understand you had not provided that – I have this interview that you did on November 1 before me – the transcript. But I understand, essentially, you did not – you say you didn't articulate it in the

Westney report. Were you saying you didn't tell Westney about –?

MR. KEAN: I didn't tell Westney.

MS. O'BRIEN: Okay, and in fact, you say –

MR. KEAN: To be quite – I'll be honest, I didn't know about it.

MS. O'BRIEN: Well, you said, actually, here you said: You know, I was keeping pretty close to my chest.

MR. KEAN: Yeah.

MS. O'BRIEN: So you say you knew about it, but you were keeping it close to your chest?

MR. KEAN: We didn't – when we did the QRA – the schedule, the full detailed schedule, some of the finessing was still under way by the planning group.

MS. O'BRIEN: When did you learn about it?

MR. KEAN: I learned about it in late August, early September.

MS. O'BRIEN: Of?

MR. KEAN: '12.

MS. O'BRIEN: Okay, so before you did the rework?

MR. KEAN: Yeah. Yeah, we didn't –

MS. O'BRIEN: Okay, so did you tell Westney about it then? You're going back –

MR. KEAN: No, no I didn't.

MS. O'BRIEN: – to do work with Westney to do a – doing a –

MR. KEAN: We didn't –

MS. O'BRIEN: – rerun of the schedule; why didn't you tell him then?

MR. KEAN: Because we didn't do any of the – we didn't change any of the ranges. And at the end of the day, I knew it would provide a proxy and a viewpoint, and it should be considered in that regard.

MS. O'BRIEN: All right, so you didn't tell Westney when you hired them to redo the work in September of 2012, even though you knew it at that time, you're saying.

MR. KEAN: Mmm.

MS. O'BRIEN: Right?

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. And how many hundreds of tens of thousands of dollars did you pay Westney to do that work?

MR. KEAN: Maybe a couple of thousand dollars?

MS. O'BRIEN: Okay.

And you didn't think that it would be – well, why wouldn't you give them all the relevant, necessary information?

MR. KEAN: Because I didn't want to go through doing all the overall ranging again, because of all the individual activities. We had spent considerable time on that and the model logic, and I – you know, at the end of the day I knew the analysis would present something that would be used in a, you know, subjective way. As I tried to explain in the report, it's meant to provide risk-informed decision-making.

MS. O'BRIEN: Okay.

Sorry, you're saying that – you said that it was $150,000 to $200,000 to get Westney to do a QRA. You're saying for them to rerun this work in September of 2012, it would've only been a couple of thousand dollars?

MR. KEAN: Yes, because I just had the time model. I just changed a few activities in that model, which were updated; it would just involve one person from Westney. There was no reporting required, no fly up to St. John's for workshops, those things.

MS. O'BRIEN: Okay. So we can obviously get – confirm that.

Okay. So you didn't mention it to them when – Westney – when you're redoing the work; you did not mention it on the slide shows you prepared for Grant Thornton.

MR. KEAN: No.

MS. O'BRIEN: Okay. You did not mention it in your interview with Mr. Learmonth and I on August 5.

MR. KEAN: No.

MS. O'BRIEN: Okay – of this year. And yet we discussed schedule at length, at that time, did we not?

MR. KEAN: We did.

MS. O'BRIEN: We discussed P1 schedule and –

MR. KEAN: But, you know –

MS. O'BRIEN: Okay.

MR. KEAN: – as I wasn't very well – I would say – very well prepared going into that interview for the questions that would be coming at me, and I've done some studying thereafter to try to bring back my memory.

MS. O'BRIEN: And the first time that you mentioned it was in this interview last week and that was after it had become a hot topic here before the Commission, is that right?

MR. KEAN: It had – well, when we did my interview, you – it certainly got up about the P1, so I knew it needed to be understood more – you know, I knew there was going to be questions about that, yes.

MS. O'BRIEN: When is the last time you discussed this topic with someone from the Nalcor project team?

MR. KEAN: I talked to a planner a few – a couple weeks ago, about the schedule, trying to understand the logic that we used to put the project control schedule together.

MS. O'BRIEN: Okay, who was that?

MR. KEAN: Tony Scott.

MS. O'BRIEN: Okay, and anyone else you've spoken to recently? Have you spoken to Mr. Paul Harrington recently about it?

MR. KEAN: No, I spoke to Tanya Power.

MS. O'BRIEN: Okay, have you spoken to Mr. Paul Harrington about this P1 issue since the Commission's hearings have started?

MR. KEAN: We talked in general about the schedule and some questions that were coming up in the public as we were hearing.

MS. O'BRIEN: Okay –

MR. KEAN: Yes.

MS. O'BRIEN: – including the concern about the P1?

MR. KEAN: Principally, when Mr. Derek Owen came out in his testimony.

MS. O'BRIEN: Okay, so that was about the P1.

MR. KEAN: Yes, yes, yeah.

MS. O'BRIEN: Okay, so you spoke to Mr. Harrington about the P1.

MR. KEAN: We talked about what we had heard in the news. It was getting a lot of traction – lot of concern.

MS. O'BRIEN: Okay.

Anybody else on the project management team that you spoken to?

MR. KEAN: No.

MS. O'BRIEN: What about Mr. Martin – Ed Martin?

MR. KEAN: No.

MS. O'BRIEN: Okay. Thank you.

Now, in addition to Validation engineering [sp Estimating], which is one of the companies we discussed earlier, who received a fair bit of press on this project. And in addition to the Independent Project Review, the other organization that's frequently noted in Nalcor's documentation and the presentations that were prepared for government providing consulting services is Independent Project Analysis. Are you familiar with that company?

MR. KEAN: Yes, I am.

MS. O'BRIEN: Okay. So just – generally speaking, can you tell the Commissioner, what did – I'm gonna call them IPA – what services did IPA provide to the Lower Churchill Project?

MR. KEAN: IPA provided a – two separate reviews on the status of the project, which they call perspective – or Pacesetter Reviews – one of the two – where they collect certain data on your cost and schedule, your organization and try to do an assessment as to where you fit in comparison to other projects in their database.

MS. O'BRIEN: Okay. And who is the principal of IPA?

MR. KEAN: Mr. Ed Merrow, I think.

MS. O'BRIEN: Okay.

And we – I think we've heard his name mentioned, say, by counsel questioning here. Mr. Ed Merrow is someone who has some – is of some note in the industry. Is that fair to say?

MR. KEAN: Yes, it is.

MS. O'BRIEN: Okay, so the type – I understand IPA has a big database of a lot of different projects, and this is, you know, an organization you can go to, to get your project benchmarked against other projects.

MR. KEAN: Yes, principally on the measurement – they do have a lot of metrics around front-end loading.

MS. O'BRIEN: Okay.

And when we see the words Pacesetter Evaluation that they did, what do you understand the – what is the Pacesetter Evaluation –

MR. KEAN: It's –

MS. O'BRIEN: – that they do?

MR. KEAN: – an evaluation – I think they used the word Pacesetter prior to Decision Gate 2; prior to Decision Gate 3 they might use something called a perspective. It's just –

MS. O'BRIEN: Okay.

MR. KEAN: – different types and forms of reviews that they would undertake that they have. And they would be standardized, I guess, across the industries.

MS. O'BRIEN: Okay, so they have a standard review for Decision Gate –

MR. KEAN: Standard –

MS. O'BRIEN: – 2 and then they have a standard review that they can do for part of Decision Gate 3.

MR. KEAN: Which is based upon standard questions they would ask and very statistical base, you might say.

MS. O'BRIEN: Okay but the answer to the question was, yes?

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And so – now, I know that you initially – prior to Decision Gate 2 you had IPA do work twice, I believe. That you had them do some work at Gate 2A –

MR. KEAN: Yes.

MS. O'BRIEN: – and then you had them do work again at Gate 2.

MR. KEAN: Yes.

MS. O'BRIEN: Okay.

And –

UNIDENTIFIED FEMALE SPEAKER: (Inaudible.)

MS. O'BRIEN: No, not Gate 3.

So – and I understand that they have a lot of, even, hydroelectric projects in their – they have at least some hydroelectric projects in their database, right?

MR. KEAN: They do.

MS. O'BRIEN: Okay.

So like when we heard Professor Flyvbjerg speak about reference class forecasting here at the Commission, I understand you heard that testimony or you've heard of it?

MR. KEAN: Yes, I have.

MS. O'BRIEN: Okay and so –

MR. KEAN: And used it in the past.

MS. O'BRIEN: Okay and so using a company like IPA, is this a way to do reference class forecasting?

MR. KEAN: To some degree, yes. It's one way at the highest level that that might be utilized. And for – I believe, they would benchmark your schedule, if you would, or your overall contingency and I believe some of those are contained in the DG2 QRA report.

MS. O'BRIEN: Okay.

And I'm just going to look quickly just to give the Commissioner some flavour of these documents. Can we please bring up P-01021? And this is the – it's at tab 16 of your book, this is the Decision Gate 2A report. And so this a Gull Island-first scenario, I just want to make that clear, right? Okay.

Can we just go – look at page 1, that's what it is. If we go to page 7, I'm just going to highlight a few pages here. So this – am I correct, this is them sort of describing the work that they would have done here, including identifying similar projects in their database to compare the Lower Churchill Project to?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. Go to page 22, please.

On this slide here, they do – this is called their benchmark caveat slide. They do say: "Despite qualitative information and megaproject history, IPA could not produce reliable cost and schedule benchmarks." They did produce a contingency benchmark.

Do you know why they could not produce cost and schedule benchmarks in this case?

MR. KEAN: I can't recall.

MS. O'BRIEN: Were they able to do it for the Muskrat Falls-first scenario? I didn't note it.

MR. KEAN: I can't recall to be –

MS. O'BRIEN: Okay.

MR. KEAN: – honest with you. I – with – I think the challenge has been a lot of the hydro projects is getting, you know, the highest level benchmark data because of the unique – you know, normalizing the unique attributes of those projects.

MS. O'BRIEN: Okay, page 37, please.

This is a long document and I just want to just go through some of it. So here they do some looking at Alberta projects. And I note here that, obviously, that the Lower Churchill Project is not located in Alberta, but they considered its abilities to succeed to be linked to the Alberta market.

And so that led them to make some recommendations for the Lower Churchill Project, is that right? Do you recall them doing that, making some comparisons and linking to the Alberta market?

MR. KEAN: I don't recall to be honest.

MS. O'BRIEN: Okay.

MR. KEAN: I didn't get the exhibit until this morning so I didn't get a chance.

MS. O'BRIEN: Okay, that's fine. And I'm not going to go through – I'm just want to skip through it a little bit.

Page 43, please? This is where they're identifying some risks here, particularly about labour and again looking at the experience in Alberta. And can we go to page 83, please?

So this is where they made a recommendation about a steering committee. So here they reported that the project, being the Lower Churchill Project, reportedly lacks a formal steering committee with regular meetings. And they give some steering committee facts here that only 6 per cent of megaprojects in their database did not have a steering committee and that large projects with no steering committee had the following issues: The worse team development, worse FEL, poorer operability.

Do you recall them making this – sorry, this recommendation to – I think they do lead to a recommendation to have a steering committee? I think if we go to page 132 we'll see that.

MR. KEAN: This looks familiar, yes, this slide.

MS. O'BRIEN: Okay. So was this – you did say earlier you recall drafting a steering committee charter.

MR. KEAN: Well –

MS. O'BRIEN: Was this one of the reasons that you did that? It was – here we go, it was one of the recommendations for the Lower Churchill Project.

MR. KEAN: I thought the steering committee work had started before this, following out of the overall governance work that had been done, but it may have been around the same time. I guess that at this part, you know, this would spur it, if anything.

MS. O'BRIEN: Okay.

And if we look at page 135, here it's this – oh, I just want to go to – they make some recommendation about – this is develop contingency plans for labour-related risks. So that seems to be at focus of the report here. Do you recall that?

MR. KEAN: Of course. We put a lot of effort into that – understanding Alberta's rates at this point in time.

MS. O'BRIEN: Okay.

Can we go now – we're going – I'm going to go take us to the presentation that they did for DG2, so Muskrat Falls first. P-01022, please, tab 17 in the binder.

Now, here – and this is the detailed one. I – they did do a detailed one; they also did a summary one. The summary one has also been entered into evidence but I'm not intending to go to it.

I just want to note here that they did say a number of positive things about the Muskrat Falls Project and your readiness for Gate 2.

MR. KEAN: Thank you.

MS. O'BRIEN: You could say, yes, they did.

No, they did, they said a lot of good things here. And one of the things, too, they even said that the 15 per cent contingency at DG2 was – they considered a bit higher than megaproject averages. Do you recall that?

MR. KEAN: Yes.

MS. O'BRIEN: Okay, I'm going to take us to a few slides here just to give the Commissioner a feel for what's in the document.

Page 20; so here they give a little bit of a definition of what they consider a megaproject. And if we go to page 21 they talk a little bit more about, you know, what makes megaprojects and what their unique characteristics are.

Page 25; they talk a bit about megaproject success and failure. And they make the point here that, you know, a high percentage, 56 per cent of the megaprojects in their database, had failed based on these criteria that they set for failure. And their criteria for failure would be an increase of cost of 25 per cent, a schedule slippage of 25 per cent, an overspending by 25 per cent or having severe and continuing operational problems, I guess, a year or more out.

At the time, do you recall this having an impression on you, that you were undertaking a project where, when you look at other projects in that class – even the large megaproject class – that, you know, this is not particular to hydro megaprojects, but there was a 56 per cent chance of failure in their database?

MR. KEAN: This wasn't new information.

IPA had come into the project in fall of 2007 and done an overall seminar for us on – and very similar, they didn't evaluate our project, but shared a lot of these same information and trends and learnings and talked about things, so … and many of us were aware. Of course, that's part of the focus on our – ensuring it's going into things eyes wide open and managing it the best you can.

MS. O'BRIEN: Can we go to page 41, please?

This is where – this – here they're talking about the Muskrat Falls team being good, even better than megaproject average on the team integration. But I just want to confirm when we're reading this, at this time, when they were doing the work, SNC was still the full EPCM contractor, right?

MR. KEAN: That's right. This is about integrated, the functions exist. They work as a unit, corporate integration and so on.

MS. O'BRIEN: Okay, so I just want to be clear that when we see integrated here, it's not the same thing as the integrated management team.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay. But they – the way they use integrated that it was up in the good range, above average.

Can we go to slide 90, please?

Here they talk about contingency: What is contingency? And they don't seem to break it down by strategic and tactical. Is that correct?

MR. KEAN: This slide it doesn't. I don't – you know, I don't know if they differentiate what's in contingency or not. I don't know.

MS. O'BRIEN: Okay.

MR. KEAN: And, of course, we've been characterized and strategic by a recent management reserve.

MS. O'BRIEN: Okay.

Here they seem to be talking about: "Not intended to provide for changes to project scope and unforeseeable circumstances beyond the project management's control." So they tend to look at this unforeseeable circumstances.

MR. KEAN: Correct.

MS. O'BRIEN: And if we go – actually just go to the next slide. Here's where they show the industry average is 15 per cent contingency, and the Muskrat Falls, at this point, was obviously at 12 but, ultimately, at DG2 you'd increased that to 15 per cent, at least for ...

MR. KEAN: Well – and I had made an observation in the DG2 QRA report, it was actually 16. I believe that's nearer of the 12 per cent there.

MS. O'BRIEN: Okay.

MR. KEAN: But at DG2 it was 15, as you said.

MS. O'BRIEN: Okay. So right on the industry average.

MR. KEAN: That's correct.

MS. O'BRIEN: Okay.

Now, page 108.

Here's some of their conclusions, and you know, they say, like, the drivers are better then typical; that there's experienced, highly involved and robust team. But they do say: "… but team is not fully aligned on several key issues and doubts projects success." And they say: "As owner ramps-up the team and EPCM contractors mobilize in next few months, lingering team issues will magnify risks and potentially erode benefits of Best Practices applied thus far."

I'm just going to look at the rest of their conclusions here.

Here's the recommendations. So they give some recommendations here about how to resolve gaps identified under team functionality.

Do you recall this feed back from them?

Mr. KEAN: Yes.

MS. O'BRIEN: Okay. And did you take these recommendations –

MR. KEAN: Yeah, very much.

MS. O'BRIEN: – on board and –

MR. KEAN: Very much so.

MS. O'BRIEN: Okay.

Here they have more that they're looking at, you know, other things that you can do: interface management plans, manage risks of late changes. Those would be design changes, would they?

MR. KEAN: Yes.

MS. O'BRIEN: Okay. And here they – one of the recommendations they said: "Adequately plan for labour shortages, which are likely to occur, and follow through on the plan to resource load project schedule." So they really saw, at this point at least, labour shortages being a key issue. Is that fair to say?

MR. KEAN: Based upon – yes, based upon Alberta and the oil – the general market in the growing oil price was driving that. Yeah, I agree.

MS. O'BRIEN: Okay. So in the summary document that's there, this has actually been entered as P-00896, I don't need to go there. The – just want to – we – you had said that IPA could do and did do, does do, DG3 reviews.

MR. KEAN: They do a DG3 review, yes.

MS. O'BRIEN: Okay. And we have seen documents as early as this morning with Tom Marshall, government documents, which record that Nalcor had undertaken to do an IPA review prior to DG3. And that document was dated from 2011, so after this work was done. Were you aware that Nalcor had undertaken to do a further IPA analysis prior to DG3?

MR. KEAN: I know in the original – so each Decision Gate there's a planned number of deliverables. So the original Gate 3 deliverables list included a plan to do an IPA review. That was back in the 2008 period. That was identified and I think I was the lead author on that document back then, so… but I don't recall as to what transpired for us not to do it.

MS. O'BRIEN: Okay. My question was: Were you aware that Nalcor had undertaken to government – at least as recorded in government's documents – to do an IPA review prior to DG3?

MR. KEAN: I had no visibility in that communication to the shareholder.

MS. O'BRIEN: Okay. And one – you did not do that, Nalcor did not go back to IPA, is that right?

MR. KEAN: We did not.

MS. O'BRIEN: Okay. Do you know – and you're saying you don't recall why you didn't. Is that what you just said?

MR. KEAN: No, I don't recall.

MS. O'BRIEN: Okay.

MR. KEAN: We went back to IPA in 2015, again.

MS. O'BRIEN: Okay. Do you know whether there was any changes made by the project team to IPA to make some changes to their summary report? Were you involved with that?

MR. KEAN: I believe, 'cause we weren't – so IPA normally produces a detailed report, and we said we needed to have something to give to people as part of public disclosure that we were doing these reviews. And most of the things in IPA's report, they're metrics, they want to keep very confidential. So we asked them to produce a summary report. That was part of the original scope. And I think we got something fairly abbreviated that they felt comfortable with. And

I don't know, I can't recall what changes were or weren't made.

MS. O'BRIEN: Do you recall the project management team making suggested changes to them that were rejected by IPA?

MR. KEAN: I'm sure that – you know, we would've reviewed it and probably proposed changes. IPA goes through a review panel, I think, for their – for proposed changes, so that likely did occur. I can't think of any specifics.

MS. O'BRIEN: Okay, and you don't know the reason why you didn't go back to IPA?

MR. KEAN: No, I don't.

MS. O'BRIEN: Okay, and I'm just – I mean, the – at DG2, you'd had a contingency of 15 per cent, but by DG3, you were down to 7 per cent. You know, did any thoughts – were – any concern that if you went back to IPA, how that might match up with their database?

MR. KEAN: Not from my perspective because both are landed upon from the same manner. And you know, from a QRA perspective and the contingency – be it a P50 estimate contingency – came out of that process.

MS. O'BRIEN: But all your – none of your labour – your labour productivity and labour risks, you know, availability of skilled labour risks. You only considered that in the strategic – your strategic analysis, right?

MR. KEAN: No, so the availability of the labour assets for strategic risks was basically above and beyond normal available labour. If you couldn't get that, what would we have to do to attract things from Alberta?

MS. O'BRIEN: Right.

MR. KEAN: But our labour rates were higher than anything else in the province and higher than Hebron's – that we were planning to use. And based upon all the labour planning and workforce planning that had been done. So in that perspective, the strategic risk was above and beyond all that. If Alberta continues to be a booming market, and what we've got to date doesn't hold, there could be exposure.

MS. O'BRIEN: Right, and that's – you had accounted for that to some extent in your strategic risk at DG3?

MR. KEAN: Based upon the characteristics of that, yes, because –

MS. O'BRIEN: But that wasn't in the 7 per cent.

MR. KEAN: No, it wasn't.

MS. O'BRIEN: And when we look at IPA's report, they considered labour availability to be something to look at through contingency, right? Is that what we just reviewed?

MR. KEAN: In their – they looked at – yes, yeah.

MS. O'BRIEN: Okay, so your 7 per cent wouldn't have had, you know, what they considered at least in their first report to be an important concern facing the Muskrat Falls Project?

MR. KEAN: Well, the concern would've been largely mitigated by the aspect of the labour rates that you had in your base estimate. If your labour rates in your base estimate were low or not reasonable of the market or what to expect, of course it would be. But back to that again, is your input reasonable?

MS. O'BRIEN: All right. Okay, thank you.

The last area of questioning I need to get into has to do with some questions that came out of Mr. Marshall's questioning this morning, and we – I don't – I'm not gonna be asking you to give your precise income, Mr. Kean. We're just looking at it in general terms. But while you were working on the Muskrat Falls Project, can you give us a sense of where your annual salary would've been from the project?

MR. KEAN: My annual salary?

MS. O'BRIEN: Yeah, how much –

MR. KEAN: Well –

MS. O'BRIEN: – you earned in total.

MR. KEAN: Well, from a perspective as a consultant, I would've billed an amount remunerated –

MS. O'BRIEN: Yeah.

MR. KEAN: – for – my company would have –

MS. O'BRIEN: Yes.

MR. KEAN: – been remunerated, I think, around $1,100 to $1,200 per day.

MS. O'BRIEN: Okay.

MR. KEAN: Of which, of course, you know, the cost – all the various costs and factors.

MS. O'BRIEN: Yes, okay. Yeah, that gives us a bit of –

MR. KEAN: (Inaudible.)

MS. O'BRIEN: – a sense, all right. Thank you.

Commissioner, I can keep – I do have a little bit – a small further area of – a few small further areas of questioning. I had estimated I'd be a day. It's 5 o'clock now, maybe if we started a bit early tomorrow I'd make it up?

THE COMMISSIONER: All right, is that satisfactory? We'll start tomorrow – if it is, we'll start at 9, and then, I think we should be – hopefully we'll finish Mr. Kean in real time. If not, we'll go on until we do, just as a little alert.

All right, so we're adjourned then, until tomorrow at 9 o'clock.

Mr. Kean, you can return at that time. You are under examination at this time. I'm sure that'll be explained.

CLERK: All rise.

This Commission of Inquiry is concluded for the day.