



COMMISSION OF INQUIRY  
RESPECTING THE MUSKRAT FALLS PROJECT

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Transcript | Phase 1

Volume 43

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*Commissioner: Honourable Justice Richard LeBlanc*

Wednesday

21 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.

Mr. Peddigrew, when you're ready. And, Sir, you remain affirmed at this time.

**MR. HARRINGTON:** Thank you.

**MR. PEDDIGREW:** Thank you, Commissioner.

Good morning, Mr. Harrington.

**MR. HARRINGTON:** Good morning, Mr. Peddigrew.

**MR. PEDDIGREW:** All right, so just picking up on where we left off yesterday – just a couple of additional questions this morning.

The information – the questions yesterday about your day rate, I think, came up to about 2011. Now, there might have been – I think there were some exhibits came out last night that I haven't had a chance to look at yet. But do you recall what the rate increased to over the years after 2011?

**MR. HARRINGTON:** I didn't bring that information with me.

**MR. PEDDIGREW:** Okay.

Do you know what it is right now?

**MR. HARRINGTON:** Yes, I do.

**MR. PEDDIGREW:** Okay.

**MR. HARRINGTON:** It's 1,945.

**MR. PEDDIGREW:** Okay.

So between – I think it was about 1,500, was it, in 2011?

**MR. HARRINGTON:** No, I think it was higher than that.

**MR. PEDDIGREW:** Higher than that. Okay.

And were you subject to any – or eligibility for bonuses –

**MR. HARRINGTON:** No.

**MR. PEDDIGREW:** – over that period?

**MR. HARRINGTON:** Not –

**MR. PEDDIGREW:** No?

**MR. HARRINGTON:** – at all.

**MR. PEDDIGREW:** Okay.

Some questions yesterday about the labour negotiations, and you mentioned David Clark. Do you know how Mr. Clark was hired? Were you involved in the hiring at all?

**MR. HARRINGTON:** No. I wasn't hired – wasn't involved in the hiring.

**MR. PEDDIGREW:** Were you aware of it, the hiring, when it happened?

**MR. HARRINGTON:** I'd – no. He just – he was there. I didn't hire him. So I –

**MR. PEDDIGREW:** Okay. Did you know him before his time on the Muskrat Falls Project?

**MR. HARRINGTON:** No, I didn't. No.

**MR. PEDDIGREW:** So you don't know anything about whether he was hired pursuant to a job advertisement or anything like that?

**MR. HARRINGTON:** No, I don't know.

**MR. PEDDIGREW:** Okay.

During the questioning from Ms. O'Brien on Monday you – in response to some questions, you replied about stage of engineering work that was completed about a particular time at DG2.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** And you made reference to the fact that it was only 5 per cent of the engineering. Do you recall that –?

**MR. HARRINGTON:** Yes, I do.

**MR. PEDDIGREW:** So when you were making that response to Ms. O'Brien, what did you mean? What was the, I guess, the context of saying: Only 5 per cent that the engineering had been done at DG2?

**MR. HARRINGTON:** The –

**MR. PEDDIGREW:** If you want, I can take – I can refer you to the question and answer –

**MR. HARRINGTON:** No.

**MR. PEDDIGREW:** – from Monday.

**MR. HARRINGTON:** I think I'm okay.

**MR. PEDDIGREW:** Okay, sure.

**MR. HARRINGTON:** So you know, at any point of development of a project, there's a certain amount of engineering work performed, and as one moves through the various stages, the amount of engineering increases.

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** So at that very early stage, you know, we hadn't mobilized the EPCM contractor. We hadn't developed and produced a lot of the drawings. So consequently, the percentage completion at that DG2 phase, when we hadn't got the EPCM contract on board, was at a low rate. Five per cent was the estimate at that point in time.

**MR. PEDDIGREW:** Okay.

And you're aware – or tell me, I guess, if you're aware that when the PUB was doing its review that's the stage of information it had. Are you aware of that?

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** Would have had DG2 information.

**MR. HARRINGTON:** DG2 information, that's correct.

**MR. PEDDIGREW:** So would you agree that it would be difficult for the PUB to do a review with that amount of information?

**MR. HARRINGTON:** I think that was the information that was available to them at the time. I wouldn't be able to comment for the PUB's ability to do what they needed to do.

**MR. PEDDIGREW:** But to assess a project – I mean, you've indicated it's an early level stage of engineering, 5 per cent.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** And so for anybody, PUB or anybody, doing a review, that would be – you'd prefer to have more developed engineering work done, and if you're going to be assessing the engineering work. Would you agree with that?

**MR. HARRINGTON:** Well, I guess, you know, you're limited by the time that you actually have to perform that review. So –

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** So at the time that was – they were doing the review, that was the state of engineering.

**MR. PEDDIGREW:** Right. That –

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** – that was what it was available when they were asked to do their review?

**MR. HARRINGTON:** That's – all of us here, we have to deal with information that's available to us –

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** – at the time.

**MR. PEDDIGREW:** During the process whereby the PUB were requesting documents from Nalcor, were you involved in that process?

**MR. HARRINGTON:** I was involved in providing input to – you know, when a request would come in, if it was over a project-related matter, then I would be asked to provide input to it.

**MR. PEDDIGREW:** When you say input, would you – could you elaborate on that? Do you mean you would say, well, give them this, give them this or would you actually go and get documents?

**MR. HARRINGTON:** I would try and provide an answer back to – there was like a central group put together, right, and I sometimes used to sit on that group if it was, you know, relevant to the project. So we would provide that response to, I think it was Mr. Bennett and others, who would be, kind of, the funnel that all of that information went through.

**MR. PEDDIGREW:** So the funnel was through Mr. Bennett to the PUB?

**MR. HARRINGTON:** Back to the PUB, yes.

**MR. PEDDIGREW:** Okay.

I think I know what your answer to this question will be. Do you feel that Nalcor was cooperative in terms of the information requests from the –?

**MR. HARRINGTON:** Yes, I – you know, from my perspective at least. You know, we were inundated with work as you can understand, and we made our responses to those requests from the PUB to be a very high priority.

**MR. PEDDIGREW:** Okay.

I think we know, from the evidence of the PUB witnesses, they might disagree with that, but I take it that's your view on it.

**MR. HARRINGTON:** I'm looking at it from my perspective.

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** Yeah.

**MR. PEDDIGREW:** Yeah, okay.

Madam Clerk, if we could go to, just very briefly, P-01176, which is a document, Mr. Harrington, we've seen before. It's an email from you on August 2011 and –

**THE COMMISSIONER:** Tab 12.

**MR. PEDDIGREW:** So this is an email where you were, I guess, discussing the fact that you did not feel at all strategic risk had been mitigated as of August 2011, and I believe that was your evidence yesterday, so I take it you don't take any issue with that today?

**MR. HARRINGTON:** No. No, I don't.

**MR. PEDDIGREW:** And you agreed, as well, yesterday after a number of questions from Ms. O'Brien that consideration should have been given to how strategic risk – or to how strategic risk would be funded at DG2.

**MR. HARRINGTON:** I – what I think I said is that DG risk – you know, the DG2 strategic risks were identified as a range of 300 to 600 –

**MR. PEDDIGREW:** Right.

But I think you eventually – after a lot of questions, I think you –

**MR. HARRINGTON:** Okay.

**MR. PEDDIGREW:** – eventually admitted that it's something – consideration should have been given to how it was funded.

**MR. HARRINGTON:** Consideration, yes.

**MR. PEDDIGREW:** Yes.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** Okay.

And then we talked about document CE-52 – confidential exhibit CE-52 that went to the PUB.

**MR. HARRINGTON:** Yes, on the 8th of December, 2011.

**MR. PEDDIGREW:** Right.

And –

**MR. HARRINGTON:** So this was after the August –

**MR. PEDDIGREW:** After your email?

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** Right, okay.

So if we look at – I just want to go again to Exhibit P-00808 which is another document that we looked at extensively yesterday. And on page 26, which is –

**THE COMMISSIONER:** Tab 11.

**MR. PEDDIGREW:** – the key page. And so, again, we’ve looked at this – the bolded section before and the note –

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** – and the discussion of how it was removed. Jason Kean indicated he removed it. You indicated, I believe, yesterday that Mr. Kean told you he would instruct it and you accepted that?

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** Okay.

Was there any discussion between you and Mr. Kean about why that was removed?

**MR. HARRINGTON:** I can’t recall a specific, you know, discussion around that. That was quite some time ago, so no, it doesn’t come to mind.

**MR. PEDDIGREW:** You didn’t find – you don’t recall finding it strange or questioning him why he was told to remove this?

**MR. HARRINGTON:** No, I just – you know, we sometimes get instructions and we follow them.

**MR. PEDDIGREW:** Okay.

And so if we look at this note and the removal of the 6 per cent strategic risk exposure, and the note about the reference to the NSUARB, and then if we look at – if we go back or if we go,

sorry, to P-01003, on page 2 of P-01003 which is the confidential exhibit.

**CLERK:** Page 2?

**MR. PEDDIGREW:** Yes, please, about halfway down. Thank you.

So the paragraph, Mr. Harrington, it starts: “With the extent of the mitigation activities undertaken and in progress, and probabilistic cost reductions in the order of -\$400 million” et cetera, “Nalcor executive determined that it was not appropriate to create a positive or negative strategic reserve amount at DG2. These factors were also considered in establishing Project tactical contingency at 15%.”

So the message being given to the PUB, you would agree, is that Nalcor executive had determined that it was not appropriate to create a positive or a negative strategic risk reserve amount at DG2?

**MR. HARRINGTON:** That’s exactly what the words say, yes.

**MR. PEDDIGREW:** Okay.

Yeah, your email of August 2011 –

**MR. HARRINGTON:** Which is three months before?

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** Yeah.

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** So, you know, we – I identified what I thought to be residual risks and to, you know, pass that up the line. With – I didn’t – I wasn’t aware of the impact that strategic opportunities, as described here, might offset those things. So that’s not my – you know, I don’t – that’s not my world.

**MR. PEDDIGREW:** Not your world, but I would suggest, Mr. Harrington, you don’t strike me as someone who has trouble speaking his mind. Would you agree with that?

**MR. HARRINGTON:** I try –

**MR. PEDDIGREW:** If you feel that's important.

**MR. HARRINGTON:** I try and be respectful –

**MR. PEDDIGREW:** Certainly.

**MR. HARRINGTON:** – as best I can.

**MR. PEDDIGREW:** Yeah.

**MR. HARRINGTON:** And I – if I've got a point of view, I will express it. But having expressed that point of view, if it's overruled by people above me then, you know, I will have to accede to that.

**MR. PEDDIGREW:** Right. And I guess that may lead to another question if you say if you raise an issue and it's not accepted by somebody else. Did you raise the issue with Mr. Bennett or Mr. Martin that the message that was contained in your August 2011 email is not the same as the message that was going to the PUB?

**MR. HARRINGTON:** Well, I sent the email in August –

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** – and, you know – but I – as I've mentioned before, I can only, you know, point out what I think to be the situation; others can have their point of view as well. And, also, it's this issue of strategic opportunity that I really wasn't aware of with regards to the federal loan guarantee and the benefit that that might provide because I'm not in those discussions.

**MR. PEDDIGREW:** I understand that. I understand that your position on a lot of these questions is that it's not your call; it's not your decision –

**MR. HARRINGTON:** That's right.

**MR. PEDDIGREW:** – it's the decision of somebody above you.

**MR. HARRINGTON:** Right.

**MR. PEDDIGREW:** But what I'm saying to you is that in workplaces, somebody who reports

to somebody else may at times take issue with what their superior says or does and there's a respectful way to do that. And my question to you is that when I look at – and, actually, maybe it's a good time now to look a document P-00093 –

**THE COMMISSIONER:** Tab 10.

**MR. PEDDIGREW:** – which is the Decision Gate package at DG2 for the board.

**THE COMMISSIONER:** (Inaudible.)

**MR. PEDDIGREW:** Page 22, please, Madam Clerk, and if we go down towards the bottom, so right here. So –

**MR. HARRINGTON:** So this is DG2.

**MR. PEDDIGREW:** Yes.

**MR. HARRINGTON:** Am I right? Sorry.

**MR. PEDDIGREW:** Yeah

**MR. HARRINGTON:** I'm just trying to get –

**MR. PEDDIGREW:** Yeah, that's okay, so take your time. The part I want you to look at it is the sentence that begins with: "A contingent equity commitment" –

**MR. HARRINGTON:** Right.

**MR. PEDDIGREW:** – "of \$300-600M from the Province is also considered prudent ...." And I believe you said yesterday contingent equity – you were talking about strategic risk.

**MR. HARRINGTON:** Yeah. I mean, those terms are interchangeable, you know, in – they are being interchanged.

**MR. PEDDIGREW:** Yeah. Yeah.

**MR. HARRINGTON:** It's, you know, contingent equity equals strategic risk –

**MR. PEDDIGREW:** Yes.

**MR. HARRINGTON:** –equals management reserve.

**MR. PEDDIGREW:** Okay.

**MR. HARRINGTON:** You know, those three –

**MR. PEDDIGREW:** I just wanted to clarify that that's your understanding –

**MR. HARRINGTON:** That's my understanding.

**MR. PEDDIGREW:** – of what those words meant.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** So: "A contingent equity commitment of \$300-600M from the Province is also considered prudent and necessary." So this is what's being told to the board, yet the PUB is being told that there's no need to create a reserve for strategic risk.

**MR. HARRINGTON:** So this is November 2010, right?

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** And the CE-52 is 8th of December 2011.

**MR. PEDDIGREW:** So you feel all the risk had been mitigated by that point in time.

**MR. HARRINGTON:** Well, I didn't, right, because I sent the email in August of 2011, so – but in that interim, you know, executive felt as though the strategic opportunities offset the strategic risks, as they're mentioned in the CE-52.

**MR. PEDDIGREW:** Okay.

My question is – and you can tell me whether you would agree or disagree; I think I know what your answer will be – but that the PUB – the picture painted to the PUB about the level of strategic risk that had been identified by Nalcor, that's not the message that was given to the PUB. Would you agree with that or disagree?

**MR. HARRINGTON:** Could you repeat that? That was quite a long question.

**MR. PEDDIGREW:** The level of strategic risk that had been identified and that Nalcor were aware of –

**MR. HARRINGTON:** At 2010?

**MR. PEDDIGREW:** – in late 2011, I'm talking about now, okay?

**MR. HARRINGTON:** Well, so this is 2010?

**MR. PEDDIGREW:** This is 2010, yes, but I'm –

**MR. HARRINGTON:** So –

**MR. PEDDIGREW:** – talking about your email, which is August 2011.

**MR. HARRINGTON:** August 2011.

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** I said not all of it should be – you know, I didn't believe that every piece of strategic risk from my perspective, right – and I was clear on that – was completely mitigated. And –

**MR. PEDDIGREW:** The PUB weren't aware of that, were they?

**MR. HARRINGTON:** Well, I don't know. I mean, I didn't tell them. I mean, it's not my job, right?

So that went to the submission to the PUB and the CE-52 stated that with the strategic opportunities and the changes from VSC to LCC, that, plus the federal loan guarantee benefit, offset, to a large degree – or zero in their opinion – this range of strategic risk.

**MR. PEDDIGREW:** And you feel that that painted a true picture to the PUB as to what the level of risk Nalcor felt existed?

**MR. HARRINGTON:** Well, I don't know how much federal loan guarantee actually, you know, affected the strategic opportunity. I didn't calculate that. I don't know.

**MR. PEDDIGREW:** Right. I guess my question is: Did you feel that what was provided

to the PUB regarding strategic risk was accurate?

**MR. HARRINGTON:** Well, yes, it was accurate because it was signed off by our executive.

**MR. PEDDIGREW:** Okay.

Madam Clerk, if we could call up document P-00926, please. And if we could go to page 9?

Mr. Harrington, there was some discussion yesterday about the availability – availability of labour, I guess, was identified as one of the key strategic risks. Is that ...?

**MR. HARRINGTON:** Yes, it was by Westney.

**MR. PEDDIGREW:** By Westney, okay. And I believe you said that you had a number of people applying for jobs throughout 2000 – I think 2012 and 2013, I think the years – those were the years you gave – you know, thousands of applications?

**MR. HARRINGTON:** Yes, yes.

**MR. PEDDIGREW:** Okay.

**MR. HARRINGTON:** On [muskratfallsjobs.com](http://muskratfallsjobs.com).

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** Which is a website that was created by us to, you know, to – and – check, make sure that people who had an opportunity to put their CV, could do so. Prior to that we'd also had a very successful Labrador Aboriginal Training program [sp Partnership] that was put in place, and we got – we had many hundreds of people go through that.

We had a lot of discussions with the unions regarding the availability of people. And as I mentioned yesterday, you know, the – we worked with them to say well, what would be – what would be a good mitigation to make sure that we were attracting people to the project. And, you know, the things that were identified was having a camp, you know, suitable and in – you know, competitive with what you see out west.

It was having, you know, the fact that these people could be generally going home – 85 per cent of the people working on the project are from the province. So they could be home that very evening when they went off-shift rather than lose a couple of days travelling backwards and forwards.

And, you know, all of those things put together – we were very confident that we could get the people. And we did.

**MR. PEDDIGREW:** Okay. How –

**MR. HARRINGTON:** It was never an issue.

**MR. PEDDIGREW:** Never an issue?

**MR. HARRINGTON:** Never an issue.

**MR. PEDDIGREW:** Okay. So labour availability, you feel, was a strategic risk that did not manifest?

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** And then filling the positions –

**MR. HARRINGTON:** Absolutely.

**MR. PEDDIGREW:** Okay. And filling the positions – your position is that with local workers –

**MR. HARRINGTON:** 85 per cent. That's –

**MR. PEDDIGREW:** Okay.

**MR. HARRINGTON:** – is a pretty high number. And, you know, and many people from Labrador as well, you know local people. And that was the benefit of the Labrador Aboriginal Training program [sp Partnership]. You know, it gave people an opportunity who perhaps otherwise wouldn't have had it. Because we put that in place even before sanction so that, you know, we could get the benefit of that. Because you wait until sanction, it takes a period of time to train those people.

So we were working with the College of the North Atlantic, we were working with government, we were looking at national



occupational codes right back to 2008. So there was a lot of work put in here.

**MR. PEDDIGREW:** Oh no, I'm not disputing that. And I don't think that was my question. But –

**MR. HARRINGTON:** Sorry, it was a long answer to a short question.

**MR. PEDDIGREW:** – thank you for that. That's okay.

So my question is about the fourth bullet here. So if we just go back up to the heading on this slide, it says, "Why the change in cost estimates?" This is in August, 2012, so a few months before sanction.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** "Significant" – and this is a communication or a slide deck dealing with a communications message. So, "Why the change in cost estimates?"

"Significant increases in EPCM and owner costs," about \$250 million. And the fourth bullet says: "Strong competition for experienced personnel from Hebron, Vale Inco and across Canada." Do you know – the word personnel there – is that office people –

**MR. HARRINGTON:** Workers.

**MR. PEDDIGREW:** –or is that labour?

**MR. HARRINGTON:** Workers.

**MR. PEDDIGREW:** Labour.

**MR. HARRINGTON:** Labour.

**MR. PEDDIGREW:** Building trades, workers.

**MR. HARRINGTON:** Yes.

**MR. PEDDIGREW:** Okay.

And so what would – just give me some context, the "Strong competition" word. Was there – I guess, was there a thought that there'd be a shortage of workers at this point, based on these ongoing projects?

**MR. HARRINGTON:** No, it was basically, you know, we did benchmarks upon their hourly rates. And, you know, there was a lot of work – at that point in time, there was a lot of work going on out west. And, you know, the rates were, you know, high out west. Hebron was paying certain rates, Vale Inco was certain – you know, paying certain rates, so we had to be competitive with those rates, because otherwise – I mean, if you're paying a lot less for your project than perhaps – excuse me a second.

If you're paying your workers less, then, you know, they'll talk with their feet.

**MR. PEDDIGREW:** Right.

**MR. HARRINGTON:** So we had to be competitive with the ongoing projects, both locally and across Western Canada. Western Canada was a lot more difficult because, you know, those rates were so extreme, so we had to kind of focus in on Hebron and Vale Inco. And we made sure that our rates were competitive with those rates.

**MR. PEDDIGREW:** So you –

**MR. HARRINGTON:** Not generally – we weren't trying to, you know, get an upward spiral here. We were just trying to be competitive.

**MR. PEDDIGREW:** Trying to be competitive with the other ongoing projects.

**MR. HARRINGTON:** Right.

**MR. PEDDIGREW:** Those are all my questions. Thank you.

**MR. HARRINGTON:** Thank you, Mr. Peddigrew.

**THE COMMISSIONER:** Thank you.

Former Nalcor Board Members?

**MR. GRIFFIN:** No questions, Commissioner.

**THE COMMISSIONER:** Thank you.

Manitoba Hydro?

**MS. VAN IDERSTINE:** I know it always feels like great drama because it takes me so long to get up here, but the questions are –

**THE COMMISSIONER:** Lots of exercise, anyway.

**MS. VAN IDERSTINE:** Yeah.

So, Mr. Harrington, my name is Helga Van Iderstine; I'm counsel for Manitoba Hydro International.

**MR. HARRINGTON:** Good morning.

**MS. VAN IDERSTINE:** Good morning.

And I just wanted to talk to you a little bit at first about how you put together the base cost estimate.

**MR. HARRINGTON:** Right.

**MS. VAN IDERSTINE:** And as I understand it – this is obviously a very long and complicated process – but what you're doing is you're going out and getting the engineering and design done first, and then you go out and get quotes – (inaudible) is the simple way of putting it.

**MR. HARRINGTON:** It's a little bit more complicated than that. You know, initially what you're doing is, you're looking at your quantities and I think Mr. Kean had an excellent slide which showed that – which might be beneficial but I'll try and remember it – and you know, you have your quantities and those quantities are derived from engineering drawings.

Those quantities are then – you apply labour – how many hours you expect to expend to perform that piece of work and be it – you know, and then they'll develop, you know, more details as to how that – that work team would be constructed, what materials they would require, the timing that it would be, you know, the timing of that activity. So you determine the crew size.

And then, you know, you'd come out for, you know – trying to simplify it, you know – just one package of work. You would work all the way through that and you'd get to the point

where you'd say, well, to do that package of work with this amount of – these quantities, this amount of labour, this is their hourly rate, these are the materials that they require. And this would be the cost for that piece of work.

And then they may apply a productivity factor to it.

**MS. VAN IDERSTINE:** So that's what I was getting at – is that, unless you've actually got a firm contract on it – and you're still in that build phase of trying to determine what it might cost – you are doing – at the end of the day when you come up with a cost, that value has some contingencies built into it; because you're just not certain what the –

**MR. HARRINGTON:** It's an estimate.

**MS. VAN IDERSTINE:** – actual contract.

**MR. HARRINGTON:** Yeah. Exactly. It's an estimate.

**MS. VAN IDERSTINE:** So even in that – when you look at the matrix or the chart that you do with respect to what the budget – or the control budget, or however we want to describe the base cost for this project is, using that 6.2 billion – the base cost estimate itself contains some contingencies in it. Is that fair?

**MR. HARRINGTON:** Yes – and I think Mr. Lemay may have made reference to – he increased the productivity for the – the harsh Labrador conditions. I think 20 per cent comes to mind, but –

**MS. VAN IDERSTINE:** That would be an example. Other examples would be if you're taking quotes, you might take the highest of the three quotes simply to make sure that you're –

**MR. HARRINGTON:** Sure –

**MS. VAN IDERSTINE:** – keeping –

**MR. HARRINGTON:** Yeah.

**MS. VAN IDERSTINE:** – keeping that range together.

**MR. HARRINGTON:** If it was – you know, if you had a firm quote at that point in time, you know –

**MS. VAN IDERSTINE:** Right.

**MR. HARRINGTON:** – some of these quotes, you know, you go out early and you get a quote and then later on when you get the contract it may be different.

**MS. VAN IDERSTINE:** Right.

And so when we look at what Manitoba Hydro did – International did in the report they ultimately provided –

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** – with respect to DG3, one of the things they were looking at, and it was reflected in that report that you reviewed – and just want to confirm, you did review it?

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** What's reflected in that report with respect to base estimates, is that they were aware of – that there was some contingencies and risk built into those estimates.

**MR. HARRINGTON:** Yes, that's my understanding.

**MS. VAN IDERSTINE:** And that's reflected in the report.

**MR. HARRINGTON:** That's reflected in the report.

**MS. VAN IDERSTINE:** So after you do the base estimates, you've got the base estimate and then you add the escalation and the management risk and the strategic risks – if you're going to do that.

**MR. HARRINGTON:** Then – so you have the base estimate – I know, I just wanna get this right 'cause –

**MS. VAN IDERSTINE:** Okay, yeah.

**MR. HARRINGTON:** – the terminology sometimes gets mixed up.

**MS. VAN IDERSTINE:** Absolutely.

**MR. HARRINGTON:** The base estimate plus contingency, based upon a QRA – I'll just make it easy – and then the escalation. So that equals the 6.2 billion.

**MS. VAN IDERSTINE:** Right.

**MR. HARRINGTON:** Manage – strategic risk, which equals management reserve or contingent equity, is separate from that 6.2 billion.

**MS. VAN IDERSTINE:** And so the management reserve would – oh sorry, jump back again – the tactical risk was another phrase that was used in there –

**MR. HARRINGTON:** Correct, yes.  
(Inaudible.)

**MS. VAN IDERSTINE:** – right? So the tactical risk is within the 6.2 billion.

**MR. HARRINGTON:** Correct.

**MS. VAN IDERSTINE:** And Manitoba Hydro looked at that element.

**MR. HARRINGTON:** That's right.

**MS. VAN IDERSTINE:** And what Manitoba Hydro did not look at was that management risk, strategic risk element.

**MR. HARRINGTON:** Not at DG3.

**MS. VAN IDERSTINE:** Right.

And in terms of that, your understanding was that that was something that the Gatekeeper or the shareholder would be dealing with.

**MR. HARRINGTON:** That's the Gatekeeper – you know, he determines where on that spectrum of 300 to 600 million he wants to, you know, make people aware of. That – I think the Westney report indicated 497 million, which kind of illustrates a skewed curve towards the top end.

**MS. VAN IDERSTINE:** Right.

**MR. HARRINGTON:** If you look at a probability bell curve it –

**MS. VAN IDERSTINE:** Yeah.

**MR. HARRINGTON:** – would be at the top end.

**MS. VAN IDERSTINE:** So I wasn't actually getting into the details, I was just saying –

**MR. HARRINGTON:** Okay, sorry.

**MS. VAN IDERSTINE:** – that the management risk and a strategic risk is something that, from your understanding, was being dealt with by the Gatekeeper and the shareholder.

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** And in – that's how you would – what you would've talked with your staff about, in terms of – that was what their general understanding would've been as well.

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** And would be conveyed to Manitoba Hydro as well if they had asked about it, that that was something –

**MR. HARRINGTON:** If they had asked about it, yes.

**MS. VAN IDERSTINE:** Right. And yet, the other day when Ms. O'Brien was asking you questions about the scope of MHI's review, one of the things that you said, and I don't think you explored it very much, was that one of the reasons that you didn't think that MHI should review strategic risk was that there wasn't – hadn't been one done for Holyrood.

**MR. HARRINGTON:** That was my misunderstanding of the slide that was put up.

**MS. VAN IDERSTINE:** That's fair. But was there a strategic risk done for Holyrood?

**MR. HARRINGTON:** No.

**MS. VAN IDERSTINE:** No.

And so as I understand it, again, if you're doing a CPW analysis, if you were going to add in the strategic risk –

**MR. HARRINGTON:** Yeah.

**MS. VAN IDERSTINE:** – you – for Muskrat Falls and the Muskrat Falls Project you would have to look at, as well, the strategic risk for the Isolated Island or the Holyrood side.

**MR. HARRINGTON:** Apples to apples.

**MS. VAN IDERSTINE:** Exactly.

**MR. HARRINGTON:** Exactly.

**MS. VAN IDERSTINE:** Now, you had a meeting with the Manitoba Hydro International staff in St. John's in June of 2012.

**MR. HARRINGTON:** I – yes. I think I did.

**MS. VAN IDERSTINE:** That's where they had come in for their initial meeting and you were concerned about what information was gonna be provided to them and you wanted to make sure that they stayed at a high level and within what you understood to be their scope.

**MR. HARRINGTON:** Exactly. I was trying to keep within the scope.

**MS. VAN IDERSTINE:** And so you would've conveyed that to your staff that were going to be meeting with –

**MR. HARRINGTON:** Yes –

**MS. VAN IDERSTINE:** – MHI?

**MR. HARRINGTON:** – of course, you know, I mean, when engineers get together they tend to go down to the lowest level of detail.

**MS. VAN IDERSTINE:** Right.

And so do you recall who attended those meetings with MHI?

**MR. HARRINGTON:** No – there was multiple meetings – absolutely – I mean, there was different groups of people coming in, as well. I

think Mr. Kean mentioned, you know, Mr. Snyder plus Mr. Moffat –

**MS. VAN IDERSTINE:** Yeah.

**MR. HARRINGTON:** – and some others, but I don't – I can't –

**MS. VAN IDERSTINE:** You yourself – I'm just wondering about your recollection. You attended those meetings, I understand?

**MR. HARRINGTON:** The kickoff meeting and –

**MS. VAN IDERSTINE:** Yeah.

**MR. HARRINGTON:** – an occasional meeting, but you know, there was –

**MS. VAN IDERSTINE:** And the –

**MR. HARRINGTON:** – so many meetings.

**MS. VAN IDERSTINE:** I was gonna say: And then the area specialties would work together – one or in smaller groups.

**MR. HARRINGTON:** That's right, you know –

**MS. VAN IDERSTINE:** And that wouldn't be one that you would necessarily –

**MR. HARRINGTON:** No.

**MS. VAN IDERSTINE:** – attend.

**MR. HARRINGTON:** No, I couldn't possibly.

**MS. VAN IDERSTINE:** And when we're talking about area speciality, what we're talking about is the transmission- line guys, or the –

**MR. HARRINGTON:** Yeah.

**MS. VAN IDERSTINE:** Yes.

**MR. HARRINGTON:** The –

**MS. VAN IDERSTINE:** That kind of thing.

**MR. HARRINGTON:** Exactly.

**MS. VAN IDERSTINE:** The HVDC guys could get together and talk HVDC –

**MR. HARRINGTON:** Yeah, I mean –

**MS. VAN IDERSTINE:** Right.

**MR. HARRINGTON:** – Manitoba Hydro brought some excellent people, you know, across a wide range of specialities, and we made sure that they were teamed up with the person from Nalcor who was best qualified to respond to any questions and, you know, help them to understand and, you know, get the information that they needed.

**MS. VAN IDERSTINE:** And in August 2012, then, there was a second meeting with MHI, this time in Winnipeg.

**MR. HARRINGTON:** That's right.

**MS. VAN IDERSTINE:** And did you attend that meeting?

**MR. HARRINGTON:** I did attend that meeting.

**MS. VAN IDERSTINE:** And it was just after that meeting, I understand it, that Mr. Bennett then sent to MHI the Nalcor risk assessment that we've talked about. And if we wanna bring that one up, that's P-00763.

So this is the mystery slide, and if we slide – scroll down, you can just see exactly what it was.

**MR. HARRINGTON:** Okay, this is the, yeah, the tactical risk.

**MS. VAN IDERSTINE:** Yes, that's the slide. And this is the one, as you know, that does not include anything about strategic risk it.

**MR. HARRINGTON:** Carry on.

**MS. VAN IDERSTINE:** Yeah.

**MR. HARRINGTON:** No, I think it does. This is the – this is – sorry, this is the no strategic risk, one.

**MS. VAN IDERSTINE:** Right.

**MR. HARRINGTON:** I thought you meant the famous missing slide, but –

**MS. VAN IDERSTINE:** No, no. I'm not gonna talk about the famous missing slide, other than to say that it was your understanding and that you conveyed to Mr. Bennett and to Mr. Crawley that MHI had not been provided with that information.

**MR. HARRINGTON:** This one?

**MS. VAN IDERSTINE:** No, they had not been provided with the slide with strategic risk on it.

**MR. HARRINGTON:** Oh, yes. Let's get that right. Yes, correct.

**MS. VAN IDERSTINE:** And that was your understanding in August of 2012, which is why you've sent the email saying that.

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** And I take it, then, that it's obvious that your memory of what was going on in June and July of August – of 2012 would've been better at that time than it is now.

**MR. HARRINGTON:** Sorry, can you repeat that?

**MS. VAN IDERSTINE:** So your recall in July and August of 2012, of the events of July and August of 2012, would be better in July 2012 than it is now.

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** Yeah. And it is true – fair that the first time that you became aware that Mr. Kean was saying or suggesting that MHI had been aware of the strategic risk was when you heard his evidence?

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

**MS. VAN IDERSTINE:** I understand that you saw some of the draft reports that MHI prepared as they were finalizing their report –

**MR. HARRINGTON:** That's right.

**MS. VAN IDERSTINE:** – for government.

**MR. HARRINGTON:** Yes.

**MS. VAN IDERSTINE:** And –

**MR. HARRINGTON:** I was asked to comment and, you know, I commented.

**MS. VAN IDERSTINE:** And asked to comment by Mr. Bown or Mr. –?

**MR. HARRINGTON:** It would go via Mr. Bown through to Mr. Bennett or Mr. Crawley to myself.

**MS. VAN IDERSTINE:** Okay.

And as I understand, MHI accepted some of those changes, but not all of them.

**MR. HARRINGTON:** Absolutely. It's their prerogative to accept or reject anything that we've, you know, provided feedback on.

**MS. VAN IDERSTINE:** And the feedback, like the feedback you've talked about before, was really to make sure that they have accurate facts within their report so that the report is factually correct.

**MR. HARRINGTON:** Yes, we are – we're trying to provide them with that type of feedback.

**MS. VAN IDERSTINE:** So I – and just to confirm, you had an opportunity, then, to review that report before it was finalized?

**MR. HARRINGTON:** I did, yes.

**MS. VAN IDERSTINE:** And were aware that it did not include anything about strategic risk.

**MR. HARRINGTON:** That's correct.

**MS. VAN IDERSTINE:** Thank you.

Those are my questions.

**THE COMMISSIONER:** Nalcor – sorry.

I don't think Emera is (inaudible).

**MS. VAN IDERSTINE:** Do you want me to come back?

**THE COMMISSIONER:** No, no. If you want to.

Mr. Simmons, Nalcor Energy.

**MR. SIMMONS:** Good morning, Mr. Harrington.

Only two items to deal with you this morning.

**MR. HARRINGTON:** Good morning, Mr. Simmons.

**MR. SIMMONS:** The first concerns some questions you were asked yesterday about an ACE guidance document. It's included at P-00130, please, which is the DG3 quantitative risk analysis, and I'm going to go to page 312 when that document's available.

So, Mr. Harrington, Ms. O'Brien brought you to this yesterday. She actually brought you to a passage that was a couple of pages on at page 314, but this is the first page of the ACE document entitled: Risk Analysis and Contingency Determination Using Parametric Estimating. And it was either yesterday or the day before when you were asked about this.

In response to questions, I think you'd referred to the fact that this was a guidance document that referenced contingency, which I took you to be referring to tactical risks – that was what was being assessed – and that this was a policy relating to the assessment of tactical risks as opposed to strategic risks. Did I understand that –

**MR. HARRINGTON:** That was my –

**MR. SIMMONS:** – correctly?

**MR. HARRINGTON:** That was my response, I think.

**MR. SIMMONS:** Okay.

And in the first paragraph here on this page where it says scope, I see that it says: "This recommended practice ... of ACE International ... defines general practices and considerations for risk analysis and estimating cost contingency using parametric methods."

So I'd like to bring you now to Exhibit P-00252, please. This one's not in your book. So I understand this to be an excerpt from an ACE document which deals with definitions that are used in their materials. Would this seem familiar to you?

**MR. HARRINGTON:** Yes, yes.

**MR. SIMMONS:** Okay.

And this page has a definition for contingency. And it starts out stating: "CONTINGENCY –

"(1) An amount added to an estimate to allow for items, conditions, or events for which the state, occurrence, or effect is uncertain and that experience shows will likely result, in aggregate, in additional costs." It says it's: "Typically estimated using statistical analysis or judgment based on past asset or project experience."

So my first question is: Is that consistent with your understanding of tactical risks that would be assessed for a contingency in an estimate?

**MR. HARRINGTON:** That's how we applied it, yes.

**MR. SIMMONS:** Right. And then it says: Contingency usually excludes – and there are four items listed. Number three there says management reserve. So is it consistent with your understanding that management reserve is excluded from contingency risk assessment?

**MR. HARRINGTON:** Yeah, that is my understanding.

**MR. SIMMONS:** Right.

And item number four there excludes escalation. Were you aware that this definition actually excludes escalation from assessment of contingency?

**MR. HARRINGTON:** Yes, I remember escalation was being excluded but I think in some cases some people do include it.

**MR. SIMMONS:** Hmm.

**MR. HARRINGTON:** But it's – I think Grant Thornton indicated that if you did include it the effect would be quite minimal.

**MR. SIMMONS:** Right. In any event, the AACE definition here appears to exclude it.

**MR. HARRINGTON:** That is correct.

**MR. SIMMONS:** Okay.

Now, the other item I wanted to talk – ask you about concerns an email message at P-01176, please. Which, you've just been asked some questions regarding from Mr. Peddigrew, and other counsel have brought you to it before so I have to bring you back to it again.

**THE COMMISSIONER:** Tab 12.

**MR. HARRINGTON:** Okay.

**MR. SIMMONS:** Okay.

So this is your email message from August 9, 2011, from you to Mr. Bennett and Mr. Kean. And your message says: "Pls find my comments, I do not wish to sweep all of these strategic risks away, some do still exist and it is only reasonable to acknowledge these, but some of the big cost hits are indeed mitigated so they can be considered either significantly reduced or erased."

And you've already told us here that you were taking a position that we couldn't ignore all the strategic risks that were under discussion here.

**MR. HARRINGTON:** No, that's correct.

**MR. SIMMONS:** And I emphasize the words, these strategic risks, because I want to scroll down a bit to page – we can go to page 6, please, in this chain of emails because there was an attachment to this message.

So this is the beginning of the attached document. Does this look familiar? Do you recognize what this is?

**MR. HARRINGTON:** Yes, I do recognize this. Yes.

**MR. SIMMONS:** Okay.

And it has some insertions that are in red and underlined. Are these edits or suggestions that you – suggested changes that you were making to this document –

**MR. HARRINGTON:** That is correct.

**MR. SIMMONS:** – that you received?

**MR. HARRINGTON:** That's correct.

**MR. SIMMONS:** Okay.

So let's look at the first one. There are three columns here. Under the Strategic Risk column, item one is: "Organizational experience and resources for a project of this size."

**MR. HARRINGTON:** Mmm.

**MR. SIMMONS:** The second column has a range there under the heading: Summer 2010 View of Mitigated Risk Exposure. And then the third column is: Year End 2010 View of Mitigated Risk Exposure.

So for this one it had red, it seems, the second paragraph in that column: This risk has been mitigated with an experienced EPM contractor. And you added the word "largely" to change it to: "This risk has been largely mitigated with an experienced EPCM contractor."

**MR. HARRINGTON:** Mm-hmm.

**MR. SIMMONS:** Can you explain to me why you added that word there?

**MR. HARRINGTON:** Because I didn't think it was a hundred per cent mitigated.

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

So is this consistent – is this an example of what you were referring to in the email message above when you were talking about your view of these strategic risks?

**MR. HARRINGTON:** That's correct. I thought that, you know, there's still a little bit more to go.

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



So sort of keep that in mind there now, what that looks like, and we need to go to P-01050, which is the public version of CE-52 that was filed with the Public Utilities Board. So this isn't the confidential version, this is the public version here of what – I think you said earlier this morning this was filed in December 2011?

**MR. HARRINGTON:** December 2011.

**MR. SIMMONS:** Eleven.

**MR. HARRINGTON:** December – you know, I have the 12th of December (inaudible).

**MR. SIMMONS:** Right. So it's sometime after the email message we just saw.

**MR. HARRINGTON:** Yes, that's correct.

**MR. SIMMONS:** And if we go to page 4 of this document, please. Now, does this attachment to that, the document, look familiar?

**MR. HARRINGTON:** Yes.

**MR. SIMMONS:** Yeah. And it appears to be essentially a version of the table that we just looked at in your message from August 11.

**MR. HARRINGTON:** Yes.

**MR. SIMMONS:** Okay.

Item number one here: "Organizational experience and resources for a project of this size" appears to be the same, I'd suggest, as item number one on the attachment to your message from August.

**MR. HARRINGTON:** That's right.

**MR. SIMMONS:** Correct?

And if you look over in the column on the right there is some additional wording there compared to what we saw last. But if I look at the third paragraph in that block it says: "This risk has been largely mitigated with an experienced" EPM contractor.

So was that the change that you had suggested?

**MR. HARRINGTON:** That was my view and it was accepted.

**MR. SIMMONS:** Okay.

Let's go back to P-01176, please. Scroll down to item number four in that table. Item number four – this is only the second example I'll bring you to – says: "Foreign currency exchange risk," and in the commentary there, which had said: "Currency purchases will be hedged," have you added: "to the degree possible?"

**MR. HARRINGTON:** That's correct.

**MR. SIMMONS:** Okay.

And if we go now to P-01050, again, and scroll down to four. And has that suggestion been accepted and been included in what's been submitted to the Public Utilities Board?

**MR. HARRINGTON:** That is included, yes. Yes.

**MR. SIMMONS:** Right.

So the concerns that you raised in your August email then, about recognizing that not all the risks in that table had been mitigated, were those concerns carried through and reflect –

**MR. HARRINGTON:** Yes.

**MR. SIMMONS:** – in what we've, what's been filed with the Public Utilities Board?

**MR. HARRINGTON:** Yes, they appear to be. Yes.

**MR. SIMMONS:** Right. Okay, good.

And then, as you've told us, the decision then to say that the remaining strategic risks have been offset by other factors not included in the table, I presume.

**MR. HARRINGTON:** Mmm.

**MR. SIMMONS:** That was something that was made at the higher level in the organization and not by you?

**MR. HARRINGTON:** That's correct.

**MR. SIMMONS:** Yes. Okay.

Thank you very much. That's all the questions I have for you.

**MR. HARRINGTON:** Thank you.

**THE COMMISSIONER:** All right.

**MS. HUTCHINGS:** I have no questions, Commissioner.

**THE COMMISSIONER:** No questions?

Redirect.

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

Mr. Harrington, I do have a few questions on redirect. First, just following up from, I believe, some questions from MHI's counsel. She was talking about contingencies in the base estimate, and you were referring to some of the testimony of Mr. Paul Lemay.

**MR. HARRINGTON:** Mm-hmm.

**MS. O'BRIEN:** Now, I understood that Mr. Lemay, although he had used contingencies when he was first interviewed, when he gave his testimony here, he clarified that he would be referring to that in the base estimate as allowances. Would you agree with that terminology?

**MR. HARRINGTON:** I can't remember exactly what he said, but I won't dispute if you – if that's what you said.

**MS. O'BRIEN:** That's what he said.

**MR. HARRINGTON:** Okay.

**MS. O'BRIEN:** Do you agree with that terminology that when you look at doing – developing the base estimate that, when there's some factors there where you don't quite yet have all the information to give, that allowances are made, so allowance being the word that's used when you account for some uncertainty in the base estimate?

**MR. HARRINGTON:** Yes, if Mr. Lemay said that, then it's correct.

**MS. O'BRIEN:** But do you agree – is that how you would use the terminology as well – allowance versus contingency.

So what I understood the evidence to be that in your base estimate – and there's some Nalcor documents to show that that base estimate does include some allowances, and then after the base estimate is done, then you do your QRA to look at contingency.

**MR. HARRINGTON:** I'm with you, yes. Yes.

**MS. O'BRIEN:** And do you agree with that terminology?

**MR. HARRINGTON:** Yeah, I generally do. Yes.

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

And the other thing I just want to clarify is, when you were giving some of your evidence, you said, you know, the 300 to 600 million – and I think you were talking about the DG3 assessment here – you were saying, look, that's strategic risk, that equals management reserve, that equals contingent equity.

**MR. HARRINGTON:** That's my understanding, yes.

**MS. O'BRIEN:** So I just want to get a little more clarity around that, because I understood that – would not contingent equity be whatever dollars are required to get the project done?

**MR. HARRINGTON:** Not necessarily. In this case, there was a completion guarantee from the Government of Newfoundland and Labrador provided.

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

**MR. HARRINGTON:** So you know, that was – I guess, you know, they would provide any funds that were required to complete the project. I think the – what we tried to do with management reserve is identify what that range might be.

**MS. O'BRIEN:** Right.

But isn't – so, the question to you is, isn't contingent equity any dollars that are required to get the project completed?

**MR. HARRINGTON:** That's correct, yes.

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

**MR. HARRINGTON:** In that – in those terms, yes. Yes.

**MS. O'BRIEN:** Okay, so for example, you did an assessment of contingency for tactical risk, and you did your assessment for that at DG3, and you thought 7 per cent would cover it?

**MR. HARRINGTON:** Yes.

**MS. O'BRIEN:** And that was using a P50 estimate?

**MR. HARRINGTON:** That's correct. Westney's report provided that –

**MS. O'BRIEN:** Okay, but if –

**MR. HARRINGTON:** – guidance.

**MS. O'BRIEN:** But if it turned out that it became over that 50 per cent estimate, or the contingency required had been underestimated, whatever dollars were required to cover those tactical risks would have to come from contingent equity, would they not?

**MR. HARRINGTON:** Would have to come from the shareholder, yes, yeah.

**MS. O'BRIEN:** That's right.

So the – so in that case, the shareholder's exposure there, even for tactical risks, is higher than 7 per cent, if those risks do come to fruition.

**MR. HARRINGTON:** If costs go over that, then you have go back to the people who supply the money in the first place.

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

And likewise, although – you know, the QRA was done at DG3, and it showed a range – P25,

P75 range – for strategic risks of 300 million to 600 million.

**MR. HARRINGTON:** Yes.

**MS. O'BRIEN:** If it turned out more strategic risks arose that hadn't been accounted for, or the ones that did arise cost more than that, it's ultimately contingent equity that has to cover all of that?

**MR. HARRINGTON:** Ultimately it's the – it has to come back from the people who supplied the money in the first place.

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

So generally speaking, contingent equity can be a much larger number than what you've initially estimated the need for management reserve.

**MR. HARRINGTON:** Yes, but it's based upon the probability analysis that you do at the time.

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

**MR. HARRINGTON:** It's the unknown unknowns.

**MS. O'BRIEN:** Right.

Now, one of the questions – I wanna get a little bit of clarity in some of the timelines.

So one of the points I understand you've made is that, you know, availability, labour availability, didn't become an issue on this project.

**MR. HARRINGTON:** That is correct.

**MS. O'BRIEN:** And I understand that – Mr. Peddigrew took you to – maybe we can bring it up – 00926, page 9?

Okay, so here – and this is between – where you're looking at – this is just for increase in EPCM and owner's costs between Gate 2 –

**MR. HARRINGTON:** All right.

**MS. O'BRIEN:** – and Gate 3, but I understand one of the reasons that drove those costs was the strong competition for experienced personnel from other projects, both in Newfoundland and

across Canada. I take it that same factor would have been in – you know, potentially in effect for other work, not just EPCM and the owner's team?

**MR. HARRINGTON:** That's correct, yes.

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

And I understand what you're saying was that one of the ways that you were dealing with trying to mitigate availability, labour availability, being a risk – mitigate against that risk – was by, you know, paying an additional premium to people to have competitive rates to encourage people to come and work here on the Muskrat Falls Project, as opposed to the Hebron Project or other projects in Alberta or whatnot.

**MR. HARRINGTON:** So I wouldn't say an additional premium. We would be competitive with those rates.

**MS. O'BRIEN:** Okay. But here – because – here, when you talked about the increase on this slide, was that because you had to adjust your rates upwards to be competitive?

**MR. HARRINGTON:** From what we assumed earlier.

**MS. O'BRIEN:** Right. So – yeah. So that's what I meant by premium: you did an upward adjustment to make it more competitive.

**MR. HARRINGTON:** Yes, between DG2 and DG3, with a hot market, you have to respond to the hot market.

**MS. O'BRIEN:** That's right.

And when you were doing your estimates coming up to DG3 for what different contracts would cost, you know, at this point you didn't have all the – you didn't have the packages out for tender; you didn't have bids back. You were doing an estimate of what you thought that work would cost, and you – I think you described that for Mr. Peddigrew. You were looking at, you know, what the quantities that would be needed, the amount of labour that would be needed to do the work, what the hourly rate would be, and you were doing a best estimate for the contract work?

**MR. HARRINGTON:** Yes, that's correct, and you'd set a budget for that contract.

**MS. O'BRIEN:** Okay. And so if – ultimately, when that, you know, when that contract package was put out for tender, in some cases, I understand that the tender – when the proposals came back from the market, when the bidders put their bids in, it was higher than what you had initially estimated. Is that not right?

**MR. HARRINGTON:** That would be generally post-sanction, now.

**MS. O'BRIEN:** Yes, I understand that, but I just want to explore that, 'cause you've –

**MR. HARRINGTON:** Yes.

**MS. O'BRIEN:** Right.

**MR. HARRINGTON:** Yes.

**MS. O'BRIEN:** Okay, so – and in some of those cases the reason why the contract packages came back higher than what you'd initially anticipated was that they ended up putting in a higher rate for labour.

**MR. HARRINGTON:** Not a higher rate for labour, no.

**MS. O'BRIEN:** Than what you – there was no cases where they used a labour rate higher than what you had estimated?

**MR. HARRINGTON:** No, because they were all governed by the same labour agreement.

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

And when was that labour agreement finalized?

**MR. HARRINGTON:** I'm pretty sure it was before sanction, yeah.

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

So you knew what the labour rates would be before sanction, and that increase had been counted there?

**MR. HARRINGTON:** Yes.

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

**MR. HARRINGTON:** So the way – could I?

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

**MR. HARRINGTON:** The labour agreements that we put in place specified for every trade and whatever, you know, the allowances that they would have to charge. So a contractor couldn't come in and say, oh, we're going to charge a different rate, he has to follow the labour agreement that was put in place.

**MS. O'BRIEN:** Okay. So that would have all been known prior to sanction.

**MR. HARRINGTON:** That's correct.

**MS. O'BRIEN:** And roughly when would that have been known? When would you have known that, look, we're going to have these rates and we're basically locked in with these rates?

**MR. HARRINGTON:** I couldn't put an exact date on it. I'm sorry, Ms. O'Brien.

**MS. O'BRIEN:** But sometime in the summer of 2012?

**MR. HARRINGTON:** Yeah, yes. I would – I'm speculating and I know I shouldn't speculate, but around about that time I would say.

**MS. O'BRIEN:** Okay. It was well before sanction.

**MR. HARRINGTON:** It was before sanction I believe, yes.

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

**MR. HARRINGTON:** Because it had to be included in the estimate.

**MS. O'BRIEN:** Right, okay.

So here you were giving this alignment session here in August 2012. Would you have known it at this time?

**MR. HARRINGTON:** Well, I wasn't giving this alignment session.

**MS. O'BRIEN:** Sorry, Nalcor.

**MR. HARRINGTON:** Yeah, Nalcor was.

**MS. O'BRIEN:** So would that have been known? Would those rates have been essentially locked in by this time?

**MR. HARRINGTON:** I believe so, yes.

**MS. O'BRIEN:** Okay, all right.

So the next point I want to get some clarity on is I understood – I've got a – I'm looking at some of the evidence that you gave in response to questions from Mr. Peddigrew. I just want to get a little bit of clarity.

Can we please bring up P-00130 please, page 326.

Okay, so here we see – and we looked at this in my direct, but I just want to clarify how labour availability and productivity played in here. So here is where we see that – we know that Westney did their work looking at the strategic risk, the owner's reserve and the time risk in the summer of 2012.

**MR. HARRINGTON:** Correct.

**MS. O'BRIEN:** Okay. And that's how the 300 to 600 was generated.

**MR. HARRINGTON:** That's correct.

**MS. O'BRIEN:** And then I understand when they did that work in the summer of 2012, you were expecting a sanction date in late September of 2012.

**MR. HARRINGTON:** That's correct.

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

And then by the time we're here in early September, you're aware that sanction's probably going to come a little later.

**MR. HARRINGTON:** That's correct, yes.

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

So you were doing some work with Mr. Martin and others to look at perhaps moving ahead with going out and with – out to tender with some of the key contracts prior to sanction so that, you know, even if sanction came a little late, you wouldn't lose time on your schedule.

**MR. HARRINGTON:** Yeah, we wouldn't – the purpose was the tolt road, the temporary camp and the bulk excavation contracts. So those were the three contracts that if we didn't get them going, we would lose a season.

**MS. O'BRIEN:** That's right. Okay.

So your idea was to bring those out to earlier. And we see here in this back and forth between Mr. Kean and Mr. Evans, where Mr. Kean is telling him the other things he wants to consider – that we see these things being considered, so, you know, award contract for bulk excavation, remove that as project sanction is no longer a prerequisite for this activity.

So that was the type of information that Mr. Kean was communicating to Mr. Evans in September when he was asking him to rerun the time risk modelling, right?

**MR. HARRINGTON:** That's correct, yes.

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

So he reran the – so, here, Jason is thinking: Look, I believe we might now be at P20 or P30 with these early contract awards, getting the camp underway and the road and excavation. Believe we're going to be at P20 or P30, but he's asking Mr. Evans to run the numbers and confirm whether he's correct or not?

**MR. HARRINGTON:** Correct, yes.

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

And so the result of this is Mr. Evans reruns the numbers. And if we could just jump to page 321, please, Madam Clerk?

Mr. Evans reruns these numbers and this is where he comes back and says: No, you're not at

a P20 or P30; you're still, for first power, at least at a P3.

**MR. HARRINGTON:** It's not first power; it's full power

**MS. O'BRIEN:** Full power at P3, yeah.

**MR. HARRINGTON:** Full power with first power – it brought it back two months, which was – we found that a little bit unusual.

**MS. O'BRIEN:** Okay. So – now, so you're saying, then, you – and then this is where I need to get some clarity because I understand it was – had to do with your – the productivity or labour availability or labour rates. You felt that you were actually higher up, I think you said – you had said to me you – although, you hadn't asked anyone to look at it, you believed that you were higher up the curve than what Westley's analysis in early September was showing?

**MR. HARRINGTON:** Yeah, we felt it was achievable; not without risk, but achievable. But not 100 per cent, but not 50 per cent, but we're getting towards that range.

**MS. O'BRIEN:** Yes, but – so, can you just explain to me: What factors did you believe were putting you higher up the curve that had not been accounted for by Westney and its evaluation?

**MR. HARRINGTON:** So, in the first case, the schedule impact that we showed here, we were – we didn't see that logically that that would be the case, but, you know, those were the – that's what the – you know, that's what the numbers ran and that's what they provided. When we looked at the second item that could impact the schedule, which was labour availability, we were very confident – as I mentioned at length now – that that strategic risk wouldn't manifest itself and it didn't. So we were right on that, our confidence level was high.

And when it came to the third item which was the productivity which was up – which was defined by Westney as to the ability to place that amount of concrete, 12,500 metres cubed on average, per month, for that certain period of time was not achievable in their view. And we felt it was because we had the Westney view and

we had the Lee Stanford view which was, you know, Westney hadn't built any hydro projects, Lee – this gentleman had.

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

**MR. HARRINGTON:** So, you know, we're looking at – these are the probabilistic statisticians, these are practical pragmatic people telling us this so where do we go.

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

**MR. HARRINGTON:** And we believed it was more in the middle rather than at those two extremes.

**MS. O'BRIEN:** Okay, so what I'm understanding you saying, there was no new information that you had that Westney had not considered.

**MR. HARRINGTON:** Well, that Westney did not agree with.

**MS. O'BRIEN:** No. So there was no new information that you had that Westney had not considered.

**MR. HARRINGTON:** Considered, how do you mean?

**MS. O'BRIEN:** Well, when Westney knew this information, and when this QRA work had been done, all these things had been factored in, it's just when Westney ran their numbers it came out with a P3.

**MR. HARRINGTON:** But Westney didn't change anything to do with labour productivity or labour availability. They maintained – and, you know, it's their prerogative to maintain it that, no, we don't buy that.

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

**MR. HARRINGTON:** We don't buy that you've cured the labour availability issue and we were highly confident that we had.

**MS. O'BRIEN:** Right, so that's just my point. It's not that Westney didn't know about these things. They didn't – they, I think – just Mr. Learmonth handed me a note the collective

agreement was signed in May 2012. So that gives us a time frame on that. So –

**MR. HARRINGTON:** Sorry, I missed that.

**MS. O'BRIEN:** The collective agreement was signed in May 2012.

**MR. HARRINGTON:** Okay.

Thank you, Ms. O'Brien.

**MS. O'BRIEN:** But it's not that Westney didn't know about these things, it wasn't that the facts had changed; it's just that Westney took one view of them and you took another view.

**MR. HARRINGTON:** That's correct.

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

And now, you have previously said that you had no previous experience in doing risk assessments.

**MR. HARRINGTON:** That's correct.

**MS. O'BRIEN:** And that is why you had gone to Westney because they had that experience.

**MR. HARRINGTON:** That's correct.

**MS. O'BRIEN:** And – but yet, nonetheless, despite the fact that your hired experts were giving you one view on risk, you decided to take another.

**MR. HARRINGTON:** Collectively, yes, we did.

**MS. O'BRIEN:** Okay. And that collective other view is not recorded anywhere here in P-00130, is it?

**MR. HARRINGTON:** No, it's a – well, we maintained a target schedule.

**MS. O'BRIEN:** Okay. And that's what you're saying. Your reasons for doing it – that that decision was made – wasn't there. All that's here is that you maintained that target schedule of first power in mid-2017?

**MR. HARRINGTON:** That's correct.

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

Can we just go, just quickly, to P-00130, page 7? This is following up on some questions from Mr. Simmons.

This is about this – this is – in the document here where it says, “Nalcor’s implementation of Westney’s Risk Resolution Process, illustrated in Figure 1” – and this shows it here, where it shows the tactical risk assessment, strategic risk assessment – “for quantitative assessment of the potential financial exposure ... identified risks on the Project has been done in accordance” with this AACE standard, using parametric estimating.

So that standard that Mr. – it’s attached. I understand that that standard covers parametric estimating. So are we to understand that when the QRA analysis was done – and that work that’s done with Westney using its risk resolution process and the software it used, is that parametric estimating?

**MR. HARRINGTON:** It’s in accordance with the recommended practice, yes.

**MS. O'BRIEN:** Okay. And – but is it parametric estimating?

**MR. HARRINGTON:** It’s not particularly my area.

**MS. O'BRIEN:** Okay. So you don’t really know. Okay. So maybe we can ask someone, further, from Westney about that.

So – but to your knowledge here that this – this paragraph certainly speaks to all risk assessments, both tactical and strategic, correct?

If you just look, it refers to figure 1. Figure 1 may help you there. You see, there, it shows both types of risks there.

**MR. HARRINGTON:** Yeah, but I don’t see the connection just reading it very quickly here.

**MS. O'BRIEN:** I would – do you agree with me this paragraph suggests that you’re doing both types of risk assessment in accordance with this standard?

**MR. HARRINGTON:** So in accordance with that standard, but that standard states it’s contingency.

**MS. O'BRIEN:** Well, we’re going –

**MR. HARRINGTON:** And so, you know –

**MS. O'BRIEN:** No, it –

**MR. HARRINGTON:** – it’s kind of a circular thing.

**MS. O'BRIEN:** Well, it doesn’t. It says it’s risk analysis and contingency, but when we look at this paragraph doesn’t that state that you’re doing all your risk analysis in accordance with that standard on parametric estimating?

**MR. HARRINGTON:** Yeah, but that’s what that statement says, but you know, if you go and – as Mr. Simmons pointed out – if you go to that statement, and if you define contingency, contingency doesn’t include management reserve, so –

**MS. O'BRIEN:** I don’t want to parse the words so narrowly there, Mr. Harrington. I understand that you’re not an expert on risk, right?

**MR. HARRINGTON:** That’s correct, yes.

**MS. O'BRIEN:** And do you have any familiarity with this standard prior to it being included here in the P-00130 document?

**MR. HARRINGTON:** Not particularly, no.

**MS. O'BRIEN:** Okay. So someone who worked with – doing risk analysis would probably be able – better able to answer these questions?

**MR. HARRINGTON:** Mr. Kean would, I think.

**MS. O'BRIEN:** Okay. Or anybody else who works in that area, I would take it?

**MR. HARRINGTON:** I think Mr. Kean would – wrote this, so he could probably answer this very well.



**MS. O'BRIEN:** Okay, but – other people who work in the area of risk, I assume, would also be able to speak to the standard?

**MR. HARRINGTON:** Yes.

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

**THE COMMISSIONER:** All right. Thank you, Mr. Harrington. You can – you're free to leave.

So we're obviously well ahead of our schedule, but that gives us the rest of the day to keep – to get caught up. I don't know about you guys, but that's for me.

So we'll come back tomorrow morning at 9:30, and we'll – and I think it's Mr. Keating tomorrow. And do we have everything pretty much resolved with regards to issues related to disclosure?

**MR. SIMMONS:** Commissioner, I'm – as far as I know, we do.

**THE COMMISSIONER:** Good.

**MR. SIMMONS:** And I think the present plan is it appears that we'll be able to address everything satisfactorily without having to do anything in camera.

**THE COMMISSIONER:** (Inaudible.)

**MR. SIMMONS:** A few final discussions with Mr. Learmonth to confirm that this afternoon, but I think we're on track to be able to approach it that way.

**THE COMMISSIONER:** Great. All right, so we're adjourned until tomorrow morning at 9:30.

**CLERK:** All rise.

This Commission of Inquiry is concluded for the day.