COMMISSION OF INQUIRY
RESPECTING THE MUSKRAT FALLS PROJECT

Transcript | Phase 2 — Volume 7

Commissioner: Honourable Justice Richard LeBlanc

Monday — 25 February 2019

CLERK (Mulrooney): All rise.

This Commission of Inquiry is now open.

The Honourable Justice Richard LeBlanc presiding as Commissioner.

Please be seated.

THE COMMISSIONER: All right, good morning.

I trust everyone had a good weekend.

Ms. O'Brien.

MS. O'BRIEN: Good morning, Commissioner.

Before we begin today, I seek an order to enter the following exhibits: P-01769, P-01807, P-01815, P-01848 to P-01853, P-01861, P-01863 to P-01867, P-01872, P-01877 to P-01881, P-01884 to P-01887, P-01889 to P-01991, P-01893, P-01896, P-01901, P-01903, P-01929, P-01930, P-01936 to P-01939, P-01941 to P-01947, P-01952, P-01959, P-01965 to P-01967, P-01972, P-01974 to P-01977, and P-02002.

And, Commissioner, those exhibits actually relate to Grant Thornton, Scott Schaffer's testimony last week. These were a number of the documents supporting and underlying Mr. Schaffer's report.

THE COMMISSIONER: All right.

Those will be marked as entered.

MS. O'BRIEN: Thank you.

THE COMMISSIONER: Ms. O'Brien.

MS. O'BRIEN: Thank you.

Our first witness today is Keith Dodson from the Westney Consulting Group.

Mr. Dodson is appearing today by Skype, so we've tested our technical systems. Things seem to be going well, but we will talk a little bit more slowly to accommodate any delays in the system.

Before I get started with Mr. Dodson, I'd ask if Madam Clerk could – please, affirm him.

CLERK: Do you solemnly affirm that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth?

MR. DODSON: I do.

CLERK: Please state your name.

MR. DODSON: Keith Dodson.

CLERK: Thank you.

MS. O'BRIEN: Thank you, Mr. Dodson.

I'd like you to start by giving the Commissioner just a brief overview of your education and work history.

MR. DODSON: I'm a graduate of the University of Texas at Austin; worked on an MBA at the University of Houston but never finished the degree. I have an advanced business education certificate from Rice University. I spent 50 years in the engineering and construction industry, primarily as executives in construction organizations, but two years as a leader in an owner's organization. Started out working on dams just by coincidence; worked on all sorts of projects around the world, generally, for the last 20 years, basically, on very large projects.

MS. O'BRIEN: Okay.

And you're currently working with Westney Consulting Group. How long have you been working with that organization? And can you just describe for us the type of work that you do with Westney?

MR. DODSON: Actually, I'm a half owner of the Westney Consulting Group. I've been working with Dick for 12 years.

MS. O'BRIEN: Okay.

And, generally speaking, what's the type of work that you do with Westney Consulting Group?

MR. DODSON: Generally, very large projects. We define that as greater than 10 million work hours.

MS. O'BRIEN: Okay.

And I understand your head offices are in Houston, Texas?

MR. DODSON: That's correct.

MS. O'BRIEN: And that's where you're joining us from today?

MR. DODSON: Right.

MS. O'BRIEN: Okay, thank you.

So as you're aware, we're here today on a public Inquiry involving the Lower Churchill Project in Newfoundland and Labrador. Before we get into some of the detailed areas of questioning, can you give the Commissioner just, again, a brief overview of the work that you have done on this project?

MR. DODSON: Oh I'm not sure we have long enough to do that.

Basically, we started in about 2007 and we did a risk assessment on the Gull Island project. When that project did not go forward, we were called back – this was all, sorted (inaudible) in 2010, and we did an assessment of Muskrat Falls, but not on the estimate that was prepared by Lavalin.

Then in 2012 we were called back. It was really a brief assessment, a couple of days to look at the Lavalin estimate and the assumptions behind it and then conduct a workshop to test the contingency that had been put together on the project. And we always insist on looking at strategic risk.

MS. O'BRIEN: Okay.

MR. DODSON: Then we came back in 2015 in a completely different role to look at a project in trouble and give some guidance as to how it might go forward. We did a lot of work on rates of production and productivity and several assignments on various things (inaudible) question.

MS. O'BRIEN: Okay.

Just want to go back to the work you did in 2007 for a moment. And I understand that that was an initial assessment of Gull Island.

MR. DODSON: Correct.

MS. O'BRIEN: And can you just – and I know you were looking at some of the strategic risks, in particular, involved with that project at that time. Can you just give the Commissioner a little more detail on the work that you did in 2007 and what your findings were with respect to risk in particular?

MR. DODSON: Well, 2007, I can't find the report; I don't have that one. 2010 I was able to look at. That was a very in-depth look at strategic risk. We had 36 risks and we spent a couple of days with a team framing risk before we ever held a workshop.

MS. O'BRIEN: Okay.

MR. DODSON: So, a much more in-depth look at strategic risk; hence, one of the reasons in 2012 it was cursory.

MS. O'BRIEN: Okay.

And that's 2010 – the 2010 and 2012 engagements are with respect to the Muskrat Falls Project. With respect to the Gull Island project, when I interviewed you on January 28 of 2019 you did give me a little bit of information on the Gull Island project at that time.

And I understood from our interview then – and I'm at page 2 of your transcript – that you had found that there was a lot of risk involved with Gull Island. So can you give the Commissioner a little bit on those findings with respect to Gull Island?

MR. DODSON: Well, it was a significantly larger project and … Yes, I don't know the absolute numbers but the risk or such that the project could never be economical –

MS. O'BRIEN: Okay.

MR. DODSON: – under current conditions.

MS. O'BRIEN: Okay and that's current back in 2007, I take it?

MR. DODSON: Right.

MS. O'BRIEN: Okay. Okay.

So let's – I'm going to get – in a few minutes, we're going to go back to the quantitative risk assessment work that you did for the Muskrat Falls Project in 2010 and 2012 which you just alluded to. But before we get there, I'm going to ask you some questions about global trends and productivity.

Do you or does the Westney Consulting Group do any tracking of global trends for megaprojects?

MR. DODSON: Yes, it's one of our main business lines. We actually publish this data in something we call *Construction Insider*. There was a dramatic shift in productivity in about 2004 on a global basis. We were engaged in South America and the oil sands in Canada. Actually, I'd been in a couple of mining projects in Canada and a couple of projects in the Middle East and we were seeing very significant changes in rates of production.

MS. O'BRIEN: Okay.

So this is – you're saying in 2004 you were seeing a change in rates of production from what you'd seen previously. So can you tell us, you know, what was that change? Were rates of production improving? Were they decreasing? What was the change?

MR. DODSON: Decreasing significantly. One very large project in the Middle East, which had 50,000 work hours, took twice the work hours that that would've taken in the '90s. The oil sands was a bit complex in that it was merely a shortage of resource. The Middle East project was not a shortage of resource, there was just – the way the work is getting done has changed. But, in general, we saw a doubling (inaudible) –

MS. O'BRIEN: Okay. So you're –

MR. DODSON: – production and productivity.

MS. O'BRIEN: Okay, so you saw that shift starting in about 2004. Has it continued on to the present day or – you know, that shift, has it stayed at that lower rate of –?

MR. DODSON: Unfortunately, yes.

MS. O'BRIEN: Okay.

And I don't expect you to be able to give a definitive answer to this, but can you give the Commissioner some idea why, in your view – what the contributors might be to the decreased productivity that you're seeing globally?

MR. DODSON: Well, on the – there is an issue around the time that we now – quote – stand down for safety. No task is undertaken until that's thoroughly studied and all of the risk identified. I don't think that's as large as many people would think it is. It's probably a contributor of no more than 20 per cent of the difference.

The main contributor is a loss of front-line supervision and a change in the contractor's business model where they tend these days to structure themselves to make their money off of the rates, as opposed to the completion of the project. That's not the situation of Muskrat Falls but that's the general situation.

MS. O'BRIEN: Sorry, I missed what you said. You said that's not the situation with Muskrat Falls, but it's a global situation? Is that what I heard?

MR. DODSON: Right. That's a big driver.

MS. O'BRIEN: Okay.

So you're saying the more – and I'm just going to repeat this back to you, Mr. Dodson, not to put words in your mouth, but just to make sure that I've understood you correctly. I am having a little bit of difficultly hearing you.

But I heard you say that increased safety culture would be something that, in your view, has added – has decreased productivity rates.

MR. DODSON: Right.

MS. O'BRIEN: And you said – and please make – ensure I've heard you correctly – that while some people may put the impact of safety at even greater, in your opinion it's no more – it's adding no more than 20 per cent of the effect on the production.

MR. DODSON: Right, that's the safety influence.

MS. O'BRIEN: Okay.

And the other one I heard you say, a loss of front-line supervision. So is what you – what you're saying there, you're talking about a shortage of front-line supervisory –

MR. DODSON: Tenured foremen and general foreman.

MS. O'BRIEN: Okay.

So in that group of workers you'd be looking for people who had a fair amount of experience. Is that correct?

MR. DODSON: Right. The contractors historically retained those people and in the last 20 years they haven't retained them and we've lost the skill set and the loyalty.

MS. O'BRIEN: Okay.

MR. DODSON: And they should not – I'm saying it should not be the case on Muskrat Falls because Lavalin's done turnkey, so most of the very large projects are done reimbursable.

MS. O'BRIEN: Okay.

So just a short – but are you saying a shortage for the contractors to be able to find these good, you know, front-line supervisors who are able to do the job?

MR. DODSON: Well, you just said the word. They shouldn't be finding them; they should have them in their resource base.

MS. O'BRIEN: Okay, so that's a good point. So I just want to make sure that I'm being clear.

So, typically, if you're – and I'm – just want to make sure I'm getting this clear, but if you are hiring a large engineering firm to do work, previously you would expect that they might have already a number of front-line supervisors currently working –

MR. DODSON: Generally.

MS. O'BRIEN: – for them.

MR. DODSON: Generally.

MS. O'BRIEN: But – and is the trend that these people now tend to move a little bit more project to project, so when a project starts up, the engineering firm is having to look to fill those spots?

MR. DODSON: Exactly. They're basically hiring for the project.

MS. O'BRIEN: Okay.

And, I guess, when you're hiring project to project, then there's always that risk that you won't be able to get the best people in the positions. Is that what you're saying?

MR. DODSON: Right.

MS. O'BRIEN: Okay.

And the third reason, as I understood you saying, has to do with the contracting business model in terms of how contractors are making their money. You said they're doing it more on the reimbursable labour as opposed to project completion. Can you just give me a little bit more on that so I'm sure I understand what your evidence is?

MR. DODSON: Well, we can thank the stock market for this. Basically, the demands on contractors are for very low overhead and making your – and the supply chain people on the owner's side have forced the rates that are paid down to a very low margin. So you can't really carry any overhead and make money in the contracting business. And overhead, historically, has been retaining people.

MS. O'BRIEN: Okay.

MR. DODSON: People are, you know, what you make your money on, but when they're not working they're your overhead.

MS. O'BRIEN: Right.

Okay and so if you're not investing in them when there's not as much work, then it's more likely they'll move on to other jobs. Is that what you're saying?

MR. DODSON: Exactly.

MS. O'BRIEN: Okay.

So I'm going to talk a bit now about your first assessment that you're engaged on for the Muskrat Falls Project in 2010. And the Commissioner has already heard a fair bit of evidence about that quantitative risk assessment or QRA that you were involved with in that year.

So I understood you to say earlier that when you were looking at the estimate in 2010 for the Muskrat Falls Project, it was not the same estimate that you used in 2012. We've heard that in 2012 the – what's referred to as the DG3 estimate was prepared by SNC-Lavalin, primarily.

MR. DODSON: Right.

MS. O'BRIEN: But that's not the estimate that was being used in 2010 at Gate 2. Is that correct?

MR. DODSON: That's correct.

MS. O'BRIEN: Okay.

Now, let's talk about that first assessment in 2010. What view did you take of productivity in analyzing the Muskrat Falls Project in 2010?

MR. DODSON: It was higher than what was used in 2012. We reduced it based on SNC's experience.

MS. O'BRIEN: Okay.

So when you –

MR. DODSON: And we don't really set it; we just make comments and advise. So the estimate might have been done by a group out of Toronto; James – I can't remember the name of the company, but they had put the estimate together with the Nalcor people. And the production rates were higher than the rates that were used in 2012.

MS. O'BRIEN: Okay.

And when you say the production rates were higher in the estimates used in 2010, do you mean that it was assumed that there'd be better productivity or assume that productivity would be lower?

MR. DODSON: Lower.

MS. O'BRIEN: Okay.

So in 2010 it was assumed lower rates of productivity?

MR. DODSON: Yeah.

MS. O'BRIEN: Okay.

And the rates that were used in 2010, in your view, were they in-line with what Westney Consulting Group's tracking had – was showing as the global shift to lower productivity rates during that period?

MR. DODSON: Yes, I mean, you know, it's – the work on the dam is quite different than the work in Western Canada but, you know, we had been heavily involved in the oil sands and we saw the same issues we were seeing in (inaudible) in South America and the US Gulf coast. So, yes, we were influencing them to be higher.

MS. O'BRIEN: Okay.

So I understand the evidence we have that SNC-Lavalin Inc. was retained by Nalcor in early 2011 and they were involved in creating the 2012 estimate, the DG3 estimate. So I understand what you're saying at this point for the DG 2012 estimate, the assumptions with productivity were better in that it was assumed that the productivity would be greater, people would be conducting the work at a greater rate. Is that correct?

MR. DODSON: Well, it was actually based on hard data. We saw the data from Eastmain. They had a – Eastmain, one of the numbers and Romaine and then heavily on Péribonka, which I think was under construction at the time. So as opposed to us conjecturing as to what the productivity rate was, hard data was used from those projects.

MS. O'BRIEN: Okay.

And this is hard data that came from SNC-Lavalin Inc.?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

And –

MR. DODSON: Well, I don't know where it came from, but when we went up there to do this we were shown evidence, the actual results on those projects. And there are always exceptions; I couldn't say that it wasn't correct.

MS. O'BRIEN: Okay.

And you've mentioned – we've heard evidence already about the hydroelectric development on La Romaine and Eastmain. You've just mentioned Péribonka, which I understand is another hydroelectric project that was started in approximately 2004, operating by 2008; according to my data a 385-megawatt project. Is that consistent with your understanding?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

So what I'm hearing you saying was that they had some hard data from these projects. And am I taking it that the hard data that they had from these projects that they were using was not necessarily consistent with what Westney Consulting Group had been tracking in terms of productivity on a global basis?

MR. DODSON: No, it was significantly lower.

MS. O'BRIEN: Okay. So significantly lower, meaning much more productive?

MR. DODSON: Right.

MS. O'BRIEN: Okay. All right.

Did you –

MR. DODSON: Lower rates.

MS. O'BRIEN: Okay.

Did you have any – did you express your thoughts on productivity and what you were seeing globally to the people at Nalcor that you were working with when they were making their decisions in 2012?

MR. DODSON: Well, basically, we didn't try to influence the estimate itself. The tactical assessment of the contingency, basically, had been put together when we arrived.

There are exceptions. There are exceptions in other parts of the world. There was a project in the US at that time that was achieving rates that was not far different than they were proposing, but it was definitely the exception. But, you know, you had the team that had worked on those projects and that's the key thing.

So the assumptions they were making was SNC could bring the people that had done those projects, they had the same contractors they thought could do the work. So, all the conditions for seeing much improved results were there.

MS. O'BRIEN: Okay.

And so was this a discussion you would have had with people at Nalcor at the time? In other words, would you have said to them: Look, we're seeing globally lower productivity rates but we understand if you're getting SNC-Lavalin Inc. – they've been able to meet – get the productivity that they're using in their estimate from other teams? You know, there could be an exception to a global trend here if SNC is able to bring the people and the teams that they've used on those other projects.

That's how I just –

MR. DODSON: Correctly said, yeah.

MS. O'BRIEN: Okay.

And so would that have been a discussion that you had with –?

MR. DODSON: There was significant discussion on that.

MS. O'BRIEN: Significant discussion with people at Nalcor?

MR. DODSON: Right.

MS. O'BRIEN: Okay.

And, ultimately, whose decision was it as to what productivity rates would be chosen at DG3?

MR. DODSON: Strictly Nalcor.

MS. O'BRIEN: Strictly Nalcor's? Okay.

MR. DODSON: We never make the choices, we only give advice.

MS. O'BRIEN: Okay.

MR. DODSON: And we did advise that you should consider the risk in the strategic assessment. Leave the team with a target; this is the way we commonly do it. If they believe they can make it, don't change it, but consider the other circumstances in strategic risk, or as some people call it event-driven risk.

MS. O'BRIEN: Okay. All right.

And the – it was Nalcor who ultimately chose the productivity rate is what you've just said. And to your knowledge, did they choose the rate that was being put forward by SNC-Lavalin?

MR. DODSON: Yeah and, you know, the word, choose, is – Lavalin was very confident in their ability to do this. The people that were on the team had a lot of confidence. We talked about the rates and the rate of production. The rate of production they were proposing was pretty reasonable.

It made sense if you could – I can say that the key thing we'd see in other projects is we never repeat the team. This was repeating the team, doing work they had done before in a part of the world that they had the best knowledge.

MS. O'BRIEN: Okay. All right.

I may – I'm going to jump ahead a little bit here because you did say earlier that you came back and you worked with the Lower Churchill Project in 2015, 2016 when the –

MR. DODSON: Right.

MS. O'BRIEN: – project was experiencing, certainly, some difficulties particularly with the Astaldi contractor. So you would have looked at it then. I'm not going to get into a lot of detail on your work in 2015 and 2016 with you, but are you aware from that work about the productivity rates or concrete production rates that were actually being achieved on the project in, at least, a general sense?

MR. DODSON: Absolutely.

When we first arrived in 2015 – I didn't do this – we had three people involved: A fellow named Pete Oppenheim who works for us who's ex-Corps of Engineers; colonel – a fella named Dick Harding, he's the ex-president of Bechtel construction; and, Dr. Richard Tucker, who is a worldwide-known productivity expert.

The first assessment was made by Pete Oppenheim in 2015 and productivity was terrible. We came back in June of that year and – for this team and things was changed. I think the team that Scott O'Brien and Peter Tsekouras and the Nalcor team did an amazing job in turning this project around. And the rates that were actually achieved here were better than the rates that we were discussing in 2012 as the world rates. So a world-class effort on the part of those people to get the project turned around.

Of course, they directed Astaldi in doing this and Astaldi had brought in new people. So there should be an accommodation somewhere for the effort that was put in, in bringing this project in, consistent with world rates.

MS. O'BRIEN: Okay.

So I just want to make sure that I'm understanding you correctly, that when you came and looked at the project in 2015 the rates were terrible, but when, in 2016, after significant efforts by members of the project management team – who we will be hearing evidence from as we go through Phase 2; you mentioned Scott O'Brien as one of them – that by 2016 there were great improvements in the concrete production and general productivity on the site.

Ultimately, did the rates ever reach the levels that had been used in the estimates at DG3?

MR. DODSON: At DG3, they were far better. I mean, this gets – you mean the rates? No, they never reached those rates.

MS. O'BRIEN: Okay.

MR. DODSON: They were basically the rates that we were proposing that we were seeing trends around the world. Actually, they're very consistent with a study that was done in Alberta in 2009. So it gets complex in that, no, the rates that were used in the estimate are half the rates of the actual project, but the actual projects against the world are very good.

MS. O'BRIEN: Okay.

So I just want to make sure I'm understanding is that ultimately when – in 2016, when things were on a much better footing, they got rates consistent with what you've seen in other projects and consistent with what you were considering in 2010.

MR. DODSON: Even better –

MS. O'BRIEN: Even –

MR. DODSON: – than what we were seeing in other projects.

MS. O'BRIEN: Okay.

MR. DODSON: It was a remarkable turnaround.

MS. O'BRIEN: Okay. But – okay, so even better than what you were seeing in projects in 2010, but still half the rate that had been used at the DG3 estimate.

MR. DODSON: Twice the work hours per unit.

MS. O'BRIEN: Okay. Thank you.

All right, I'd like to talk a little bit – to go back to the pre-sanction period of the Muskrat Falls Project. The Commissioner has heard, already, a significant amount of evidence on P-factors and confidence levels. And we know that you were engaged with Jason Kean and Paul Harrington and others from Nalcor's project management team when they did the QRA analysis for the Muskrat Falls Project, both at DG2 in 2010 and DG3 in 2012.

What advice did you give Nalcor's project management team with respect to the appropriate P-factor?

MR. DODSON: Well, it's the same advice that we give all of our clients. That our history, and we've been doing this since – or doing (inaudible), since 2003 – is that our history, to that point and our history today, is the predictive outcome that we get from the probability analysis of P75 is where projects end up. And there's a lot of reasons for that, but that has been the history. So we always recommend that a sanction value no less than a P75.

MS. O'BRIEN: Okay.

And here we've – did you give any consideration to another P-factor here because this was a Crown corporation undertaking, essentially, a public work?

MR. DODSON: Yes. Now, our – it was an aside, you know, reflection and we discussed it a bit, that for a public project – I'd just been working on the Big Dig down in Boston, so I knew how these things could get out of control, and my history of public projects is that you're better with a P90. There will be changes that you have no control over and, you know, the community will probably have some issues with the project that will cause delays.

MS. O'BRIEN: Okay.

Now, I just wanna clarify – the Commissioner has heard a lot of evidence with respect to tactical risk assessment and strategic risk assessment. The recommendations that you're talking about here now, are they with respect to tactical risk assessment or strategic risk assessment or both?

MR. DODSON: Well, basically, our advice is the tactical risk assessment is about how well the estimate was put together; it has to do with the quantification and with the degree of design development. So it is a known risk as opposed to an unknown risk. And our recommendation is for our a team target of P50 on the tactical risk, which was consistent with what the team was already looking at in terms of their view of the project, so our recommendation is P50 on the tactical and, as I said earlier, P75 on strategic.

MS. O'BRIEN: Okay.

Now, you did mention a P90. I'm going to take you to your transcript when I interviewed you on January 28, 2019. And I'm at page 6 of that transcript, Mr. Dodson. Do you have a copy of your transcript there?

MR. DODSON: Yes, I've got it.

MS. O'BRIEN: Okay.

On page 6 of your transcript, I asked you a question. I'm towards the top of the page: And what advice specifically do you recall giving Nalcor with respect to P-factors for this Muskrat Falls Project?

And you said: Exactly that, plus, because it's a political project, P90. I worked on a lot of projects with similar situations and, you know, my advice was you'll probably have a government change, which has happened and, you know, you ought to go with a P90.

And I said: Okay. And who do you recall giving this advice to? And you said: Jason and the estimators and Paul, certainly or maybe. That's probably from my perspective who heard it. And I said: Okay, so Jason Kean and Paul Harrington? And you said: Yeah. And I said: Okay and is this advice you had given just one time or multiple times or do you recall? We were very consistent with that and then you go on to say: Multiple times.

So is that evidence that you gave to me at the – when I interviewed you? Is that the same evidence that you're giving me here today or is there a difference in what –

MR. DODSON: No, there's no difference at all. This is exactly correct.

MS. O'BRIEN: Okay, because you've mentioned here – you did mention P90 but you've also mentioned P75 for strategic risk. So can you give us a little bit – the Commissioner just wants to hear what advice you gave the project management team with respect to the P-factor for strategic risk. So can you just go over that a little more clearly as to –

MR. DODSON: Well, the absolute advice was P75 but, coincidentally, we said, you know, if we were doing – you know, if we were making the choice here, we would go to the P90 range just because of the nature of the project. But the hard advice was P75.

MS. O'BRIEN: Okay.

The – just can you give that – I'm having a little trouble hearing you. You're saying the something was P75?

MR. DODSON: We're saying that was our hard advice.

MS. O'BRIEN: Hard advice.

MR. DODSON: The – the P90s, coincidental, just saying, looking at where you are, you know, this could go much worse, but P75 absolutely. But the clients typically ignore our advice, so this is not untypical of what we see routinely.

MS. O'BRIEN: Okay.

So I just want to make sure I'm understanding. So you're saying your hard advice to them was to go for P75 for tactical risk –

MR. DODSON: Yes.

MS. O'BRIEN: – and that is for –

MR. DODSON: No, not –

MS. O'BRIEN: Sorry, for strategic risk.

MR. DODSON: Yes.

MS. O'BRIEN: My apologies, I just misspoke. I do know the difference by now.

So your hard advice was to go to P75 for strategic risk and that's consistent with the advice you regularly give your clients?

MR. DODSON: Yes.

MS. O'BRIEN: In this case, because the nature of this project of being a public project, you suggested to the project management team that they ought to consider going with a P90.

MR. DODSON: Right.

MS. O'BRIEN: And you made that suggestion to them but, ultimately, it was their choice as to what to decide.

MR. DODSON: Right. And the circumstances here were a bit artificial. This – the estimate was prepared with 2012 dollars. Typically, we're looking in the project dollars. So there was another bucket of money somewhere for inflation and escalation and also it was done without forex, foreign exchange.

MS. O'BRIEN: Okay.

And so it was done without foreign exchange and there was a separate bucket for interest and escalation. We've heard that evidence previously. How would that affect the analysis of strategic risk?

MR. DODSON: I mean, well, without having those numbers in there it's very difficult to judge. For strategic risk, typically it's heavily influenced by those two factors.

MS. O'BRIEN: Okay.

So, typically, you consider foreign exchange risk and escalation as part of your strategic risk analysis?

MR. DODSON: Yes.

MS. O'BRIEN: Okay, and did you –

MR. DODSON: More not – I mean – the definition we use is the one the economists use: There's core escalation. And core escalation, I've seen a lot of – well, I think there's actually one done here by Global Insights. It will be 2 to 4 per cent generally in that range, 3 or 4 per cent. But then there's demand inflation, and demand inflation affects capital projects inevitably. And that's driven by shortage of resource, and every project that we would call a very large project has an environment of its own and it affects the economy around it. So those drive the ability for the suppliers to raise their prices.

MS. O'BRIEN: Okay.

So if you're saying that typically when Westney Consulting work – does work on strategic risk, it considers these factors, core escalation and the inflation effect of the project itself. Did you do that for the Muskrat Fall Project?

MR. DODSON: No, that was specifically excluded, which makes this a bit artificial.

MS. O'BRIEN: Okay.

And does it make it a bit artificially low or a bit artificially high? Or can you give an assessment?

MR. DODSON: It would be lower.

MS. O'BRIEN: Okay, so the amount of the strategic risk that was chosen would be lower because of not considering those –

MR. DODSON: Could be.

MS. O'BRIEN: – other factors?

MR. DODSON: Could be.

MS. O'BRIEN: Okay.

And did you give advice on this to Nalcor's project management team?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

And how did they receive that advice?

MR. DODSON: They had a lot of – Lavalin had a lot of confidence in the estimate and their ability to deliver. And all project teams are optimistic, they were optimistic and this is typical. If they have a belief and some confidence – and in this case hard data – they tend to not listen to us.

MS. O'BRIEN: Okay.

In your experience is there any motivation on project teams to keep the cost down when they're – we're going – when they're going toward sanction?

MR. DODSON: Always.

MS. O'BRIEN: Okay, so can you just explain? You had mentioned that in our interview so I was aware of it. Can you just explain that a little bit more to the Commissioner?

MR. DODSON: Well, I mean, they want the project go ahead and, you know, when they have evidence that the project can be done for a certain cost, they generally tend to stick to it and we're generally ignored. This is not unusual.

MS. O'BRIEN: Okay.

And is it the idea that the lower the cost the more likely it is that the project will get the green light to go ahead?

MR. DODSON: True.

MS. O'BRIEN: Okay.

Did you any –

MR. DODSON: I mean they're conflicted (inaudible) and it's their job to deliver the lowest possible costs.

MS. O'BRIEN: Okay and it's also their job to go with – okay.

Did you make any specific recommendation for the Lower Churchill Project with respect to I know you've described it as political risk?

MR. DODSON: Right.

Yeah, we viewed that – and this goes back to – in 2010 if you look at the risk there, it was full of political risk.

MS. O'BRIEN: It was –

MR. DODSON: And – we had 36 individual risk (inaudible) in the 2010 evaluation. Most of those were related to political risk. I just, sort of, summed that and said $300 million, you know, was the political risk that we had envisioned for this project.

MS. O'BRIEN: Okay.

And was that $300 million at – we're talking DG3 now?

MR. DODSON: That's what – yes. My advice was you should consider strategic risk of about $300 million, but they believed that the strategic risk had been mostly mitigated.

MS. O'BRIEN: Okay.

And when you talk about political risk here, can you give a little – a fuller description of the types of risk that would encompass?

MR. DODSON: Typically, it's social and politically inspired. This adds significant social risk in terms of people being upset as – they always get upset as the project progresses and they either greatly suffer under transportation issues around the project or they feel like they're left out. So it was a combination of social risk and because of the tenure of – the length of the project, highly likely governments would change.

MS. O'BRIEN: And how does a change of government affect project risk?

MR. DODSON: Well, they set the stage and have inquiries.

MS. O'BRIEN: Okay.

And is this a – is this the type of risk that you were saying that you were talking about with the project management team back in 2012?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

And –

MR. DODSON: Actually we defined it in 2010.

MS. O'BRIEN: Pardon?

MR. DODSON: (Inaudible) – in 2010 we did a very detailed-level definition and in 2012 it was a general discussion and it had been omitted from consideration in 2012. It was considered in 2010.

MS. O'BRIEN: Okay.

And who made the decision to omit it from consideration in 2012?

MR. DODSON: I'm not clear.

MS. O'BRIEN: Pardon?

MR. DODSON: I'm not clear.

MS. O'BRIEN: Okay.

Would it been Nalcor project – would it have been Nalcor? Would it have been Westney? Or would it have been –

MR. DODSON: Oh, it's Nalcor. I mean, we don't make those decisions.

MS. O'BRIEN: Okay.

MR. DODSON: But they made – who in Nalcor made the decision, I sort of lost. I mean definitely the project team was involved and Jason and Paul were involved, Lance Clarke. But who made that decision – I think it was, sort of, made collectively.

MS. O'BRIEN: Okay.

MR. DODSON: We actually weren't there. It was made sometime between 2010 and when we arrived in 2012.

MS. O'BRIEN: Okay.

You were interviewed by members of Grant Thornton on November 16, 2018. Do you recall that?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

I don't have a full transcript of your interview, but someone at Grant Thornton took some notes – typed up some notes following that interview, based on what was said. So, it's not a perfect record of what was said.

MR. DODSON: Right.

MS. O'BRIEN: It's been entered, Commissioner, as Exhibit P-01907.

And I just wanted to ask you about a couple of entries in those notes and I just – I do want to make clear, though, that this is not a verbatim recording so your interpretation there will be very important. I'm at page 7 of those – of that exhibit and one of the questions – they were talking to you about P-factors, and –

THE COMMISSIONER: Ms. O'Brien, just before we go on we should explain that because of the technology we're not able to display these exhibits.

MS. O'BRIEN: Yes.

Yes, I apologize, Commissioner; that's an oversight on my part. Because we are using the Skype – so, we have to have cameras going so that Mr. Dodson can see me and I can see Mr. Dodson – it's great technology and it's working very well today. It – one limitation it has is that we're not able to bring up exhibits on the screen as we normally do in the course of our proceedings.

All counsel will have received these exhibits and we've ensured that Mr. Dodson has received copies of them as well, so everyone here has the ability to look at them. These exhibits are uploaded on our site. So, anyone who's watching at home and who is interested in looking at any exhibits referenced just needs to look at Exhibit P-01907 and they'll be able to find it on their home computer.

I do not expect to be taking Mr. Dodson to many exhibits, so it's not going to happen frequently this morning.

THE COMMISSIONER: Okay.

MS. O'BRIEN: Thank you.

Okay, Mr. Dodson, I'm at page 7 and one of the questions that Grant Thornton asked – and having reviewed a number of their interviews, it seems to be a common question that they ask – they ask: "**Were you ever asked to do something that made you uncomfortable**." And your answer is recorded as: "Not that I ever accepted."

And their question was – is noted as being: "**Ok but so you were asked?**" And your answer is recorded as being: "Well they wanted us to say picking P50 was a good thing and we never would say it."

Can you – do you recall this question? And can you – and if so, can you explain to the Commissioner what you were talking about in your answer here, or your answer as it's been recorded in these notes?

MR. DODSON: Sure.

The way that the question was actually phrased – and this is part of the issue when using probability because probability says that P50 is right 50 per cent of the time – so the question was asked: Can we not do this job for the P50 value? And the answer to that is yes. But you would never do that with your own money; it's still highly unlikely because you've got a 50 per cent chance that it's wrong.

So I think, you know, a prudent person would say they wouldn't pick something that has a chance of being 50 per cent wrong; they would want a much more secure value.

So, a P75 says 75 times out of a 100 it will be correct, as opposed to 50 times, so you've only got a 25 per cent chance of P75 being wrong.

MS. O'BRIEN: Okay.

And if you're using a P50 value for strategic risk, but yet you haven't included some of the strategic risk, such as the political and social risks that you just spoke to us about, is a P50 then – in fact, you're less likely than 50 per cent to come out above or below?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

So, a P50 being the number that you're likely to – as likely to come out above and below. That is, for that to be true you need to have considered, you know, all the potential strategic risks.

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

MR. DODSON: And like I said, this is little bit difficult with inflation and forex in another account.

MS. O'BRIEN: Okay, so you'd want to have considered those things as well?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

MR. DODSON: Typically they are.

MS. O'BRIEN: Okay.

I just have one other question, again, on an answer that you gave or you're recorded as giving on the – in the Grant Thornton interview. So, I'm still on Exhibit P-01907. I'm going to go to page 2 of that exhibit and I'm going to just read you out the notes as they are here. Again, I don't – I'm not suggesting that this is a verbatim recording of your answer.

The question is recorded as being: "**Help me understand. In discussion SNC would be higher numbers, who decides to accept the lower number**." And your answer is recorded, Mr. Dodson, as: "Just production rates; Well Nalcor and SLI, they were all in there; They – no one wanted to move the estimate; I'm Sure Nalcor wanted to believe it, based on discussions and SLI was very firm that they could do it; So they didn't range as much; I mean – And that same confidence carried over into the strategic risk discussion where we would have a political risk and we would have had a much higher productivity risk […] And they were $2 billion higher; But we don't make decisions we just make our view of the world."

And you go on to talk about the world has been changing on productivity since 2000.

So, we've heard a little bit about the view since 2000, but I'd like to ask you now, did – can you give some clarity to the Commissioner about what you were talking about in this portion of your interview, and in particular this $2-billion higher number that's recorded here?

MR. DODSON: Well, you know, you – first issue is the input values in probability are not the values that are reflected precisely in the P75 and the P50; it's some percentage thereof. The input goes in at P95. So, we were saying for the risk we saw on this project, our view was the risk was in the range at P95 of $2 billion. So, it should have been ranged out to that range. That would include the $300 million of political risk.

MS. O'BRIEN: That would include the $300 million.

MR. DODSON: Yes.

MS. O'BRIEN: Okay, thank you.

MR. DODSON: As far as the ranging was more like a billion.

MS. O'BRIEN: Okay.

And so you would have communicated this to the project management team?

MR. DODSON: We talked about it, yes.

MS. O'BRIEN: Okay, and what was their response?

MR. DODSON: Well they – they were pretty – they had been doing this. You got to understand they knew as much about it as we did. They'd been doing it since 2007. So they had pretty firm ideas on what they really believed the strategic risk was in this project. As mentioned, in 2010, we worked through a very detailed exercise of framing out the risk and we had 36 risks and I think it was narrowed down here to four and that choice was already made, basically.

MS. O'BRIEN: Okay. And we'll get to those four in just a moment.

I just want to talk a little bit about setting the ranges. So we've had testimony already about the ranges that are set prior to doing – or as part of doing a quantitative risk analysis. And as I understand that evidence to date, you look at particular risks and then you do your best estimate: what the best-case scenario and the worst-case scenario might be –

MR. DODSON: (Inaudible.)

MS. O'BRIEN: – for that risk – in terms of dollars if we're talking cost or days if we're talking schedule. And you take that best-case scenario and worst-case scenario and that's an input into the Monte Carlo simulation that ultimately you can use to, you know, to read off the various confidence levels for your estimate.

MR. DODSON: Right.

MS. O'BRIEN: Okay.

Do you have any concerns that the ranges, the best case and worst-case ranges, were not being set widely enough?

MR. DODSON: Yes.

MS. O'BRIEN: Okay –

MR. DODSON: I mean, it's a common problem, we have that all the time. In order to make Monte Carlo work we have to get significantly out on the fringes. These ranges were relatively tight.

MS. O'BRIEN: Okay.

So, is that – I don't want to put words into your mouth – but you did talk earlier about there being optimism on the project management team, would that be another manifestation of optimism, or not?

MR. DODSON: Oh, absolutely. No, absolutely.

MS. O'BRIEN: Okay.

And did you raise this concern with the project management team?

MR. DODSON: We had a significant discussion on the topic of strategic risk and this project and the condition of the world, the fact that the work in Alberta was declining, a lot of people from Newfoundland were coming home;

they visualized the risk lower than we would have settled with (inaudible) from a global basis.

MS. O'BRIEN: Okay.

The Commissioner heard evidence in Phase 1 from Professor Bent Flyvbjerg.

Are you familiar with Professor Flyvbjerg?

MR. DODSON: Yes, I am.

MS. O'BRIEN: Okay.

He did give evidence about optimism bias.

Are you talking about a similar thing here or is this something different?

MR. DODSON: No, it's absolutely the same.

MS. O'BRIEN: Okay.

All right, I'm going to take you now to Exhibit P-00130.

Now, Commissioner, this is an exhibit that we spent a fair bit of time on in Phase 1, it's a very lengthy exhibit. I'm only gonna take Mr. Dodson to a few pages of it and he has those pages before him.

I'm just gonna ask you to first look at page 282, Mr. Dodson, of Exhibit P-00130.

MR. DODSON: I don't have any page 282.

MS. O'BRIEN: Okay –

MR. DODSON: Mine only goes to page 29

MS. O'BRIEN: Is there a red number in the top right-hand corner of your pages?

MR. DODSON: No.

MS. O'BRIEN: Okay.

The page I'm looking for has Attachment B.14 on it with a title Analysis of Management Reserve Requirements for the Lower Churchill Project. Do you have that page?

MR. DODSON: I don't see it.

MS. O'BRIEN: Okay.

I'm going to – maybe hopefully our administrative staff can hear and we can get this sorted out but I'm going to see how I can proceed.

This – do you have in front of you the Westney Consulting Group's slideshow that was – or presentation deck that was entitled Analysis of Potential Management Reserve and Lender's Owner Contingency for the Lower Churchill Project May 23 to June 4, 2012?

Yeah, I know it already was.

I believe, Mr. Dodson, Ms. Blackmore of our office sent you – sent over Kelly Williams, of your office, these pages this morning.

MR. DODSON: Then I don't have them. She's not here.

MS. O'BRIEN: Okay.

All right.

THE COMMISSIONER: Do you want to just take break to see if we can get this organized?

MS. O'BRIEN: I think so.

We'll just – we're going to take a short break, Mr. Dodson, so we can sort this out and you can get those documents in front of you.

MR. DODSON: All right.

MS. O'BRIEN: Okay, thank you.

THE COMMISSIONER: So we'll just adjourn for –

MR. DODSON: Thanks.

THE COMMISSIONER: – five minutes or so.

CLERK: All rise.

Recess

CLERK: Please be seated.

MS. O'BRIEN: Thank you for the recess, Commissioner. We've now got our papers sorted out.

So, Mr. Dodson, you should have in front of you now P-00130, page 282.

MR. DODSON: I do have it.

MS. O'BRIEN: Okay. And if you just turn the page over to 283, that's the first page of the presentation from Westney Consulting Group.

Do you recognize this document?

MR. DODSON: I do.

MS. O'BRIEN: Okay. And this is a document that we already have a fair bit of evidence on.

And earlier, you referenced – this is the strategic risk assessment that was done in 2012 for the Muskrat Falls Project, correct?

MR. DODSON: Well, it was the total risk assessment, tactical and strategic.

MS. O'BRIEN: Right, okay.

I think this particular presentation, I think, just is looking at the strategic risks. Is that correct?

MR. DODSON: Well, the – page 2 is talking about the impact, project (inaudible) tactical and strategic.

MS. O'BRIEN: Okay.

MR. DODSON: So …

MS. O'BRIEN: All right. If we go to page – if you could please turn to page 287.

MR. DODSON: Okay.

MS. O'BRIEN: Okay.

So this is a table we've had up before. The evidence we have to date is that the – looking at a P50 confidence level, this analysis resulted in a range of P25 to P75 of $5.946 billion to $6.737 billion, as noted at the bottom of this page.

MR. DODSON: Right.

MS. O'BRIEN: Then there's – this page adds up the mean values for strategic risk exposure and, I understand, this was at the P50 that was chosen by Nalcor's team, and they – totals $497 million, so just about $500 million. And there are four specific strategic risks identified here, each with a mean impact dollar value associated with it.

I understand, earlier today when you were saying that at DG3 only four strategic risks were considered in the analysis. Are these the four risks that you were speaking about?

MR. DODSON: That's correct.

MS. O'BRIEN: Okay.

And you did already talk about, this morning, about political or social risk, which was not included in this analysis. You also spoke about forex, or foreign exchange risk and interest escalation risks that were not considered.

Are there any other strategic risks that were not considered in this analysis at DG3 that, you know, you would have advised should have been considered?

MR. DODSON: There were 32 from the 2010 that are not considered. There were 36 identified risks when we did a very thorough investigation.

MS. O'BRIEN: Okay.

So you're saying in 2010 at DG2, you looked at 36 strategic risks and 32 of those, I think – I believe you said earlier, had been considered mitigated by Nalcor prior to DG3?

MR. DODSON: Basically, yes.

MS. O'BRIEN: Okay.

And if you had been advised whether those 32 risks that were not considered to be – were not assessed in the analysis at DG3, would your advice have been, yes, you know, those are mitigated, you don't need to consider them here? Or would your advice have been, no, they – you should still give them consideration at DG3?

MR. DODSON: Well, the problem that we saw excluded, as we discussed, was the social and political risk.

MS. O'BRIEN: Okay.

MR. DODSON: And we still felt like there was exposure.

MS. O'BRIEN: Okay.

And I take it – I understood from your evidence earlier that some of those 32 risks that were considered – we'll say retired – did cover social and strategic – social and political risks to your memory?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

Anything else in particular here that you believe might be missing? Or have you covered off everything that you felt should have been here?

MR. DODSON: No. I think we – under the discussion we had, we considered – you know, even though the title may be summary, we considered the risk.

MS. O'BRIEN: Okay.

MR. DODSON: Like I say, we would have ranged them more than they were actually ranged. And you have to understand – this is a mean, it's not the P50. I don't know what the P50 is. It won't be too far away, but you cannot add P-values, you can't add averages.

MS. O'BRIEN: Okay.

MR. DODSON: This is the average of all the values from the simulation, not a P-value.

MS. O'BRIEN: I understand, but this would be a similar number. Is that correct?

MR. DODSON: I think it's actually 600 million.

MS. O'BRIEN: So you're saying at the P –

MR. DODSON: That's at P75. I don't – I would have to look –

MS. O'BRIEN: Okay.

MR. DODSON: I don't seem to have the document here.

MS. O'BRIEN: Okay.

MR. DODSON: It's just – the P50 is close.

MS. O'BRIEN: Okay.

Now, one of the questions that's been posed is – when we look at this report of yours – this report that starts at page 283 – nowhere in this report does any hard recommendation of P75 or further suggestion of a P90 for this project – that's not in your report. Why not?

MR. DODSON: Because statistically the valid range, we believe, is P25 to P75.

MS. O'BRIEN: Can you just –?

MR. DODSON: This is – I mean, it is possible that the project could've done – be done for the P25. It's unlikely, but it's possible.

MS. O'BRIEN: Okay.

MR. DODSON: So, we – this is what we do in every risk assessment. It's up to the owner to make a decision on where the – I mean, typically, sometimes, they will consider but not fund. Sometimes, they fund to a higher level. What we tell them is: The outcomes of the projects that we had done similar risk assessment had all been in the range of P65, P75.

MS. O'BRIEN: Okay.

So, do you ever give a definite recommendation for a P-factor to a client?

MR. DODSON: No.

MS. O'BRIEN: Okay.

MR. DODSON: We give guidance.

MS. O'BRIEN: Okay.

And is that consistent with what you did in this case?

MR. DODSON: Absolutely.

MS. O'BRIEN: Okay. One further follow-up question I have on this exhibit, P-00130.

Can you go to page 312 of the exhibit, and it should be one of the pages that's been provided to you. Pages 312 running through to 319 is an AACE International Recommended Practice No. 42R-08.

MR. DODSON: Yes.

MS. O'BRIEN: And if you – we look at P-00130, generally, in earlier pages, we do see this document is referenced as being used by Nalcor in conducting its QRA analysis. I just have a question for this that came up from some earlier testimony the Commissioner heard.

This AACE recommended practice, does this apply just to tactical contingency? Or does it apply to tactical and strategic contingency?

MR. DODSON: It applies to both. They don't make any differentiation.

MS. O'BRIEN: Okay.

And when you say "they," are you referring to the AACE?

MR. DODSON: AACE. I think, you know, today – they quit doing this, there were some liability issues. But most people have a view of core tactical and data strategic or debt-driven risk. When this document was assembled, that was not really considered routinely.

MS. O'BRIEN: So, it was considering all risks, globally, together?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

MR. DODSON: Yes.

MS. O'BRIEN: All right. Thank you.

I'm almost completed my questioning for you, Mr. Dodson. I did want to go back to a topic we discussed, sort of, right off the – right out of the starting gate this morning, and that was Gull Island, and I just want – and the work you did in 2007. And I just wanted to get a little bit more clarity around your evidence on that.

I know you said that the work that you did in Gull Island, the strategic risk was considered very high and you mentioned that it made the project uneconomical, or words to that effect. The evidence we have to date is that the decision not to go with Gull Island first actually came later, it came in 2010 and it was really largely driven by an application in Quebec to get power out – from –

MR. DODSON: Right.

MS. O'BRIEN: – out of Labrador –

MR. DODSON: Right.

MS. O'BRIEN: – and down through Quebec. That application had not been successful and so that was really the driving factor that caused the decision to, you know, then to focus on a Muskrat Falls first type scenario. So that was well after you'd done your 2007 strategic risk assessment.

Do you have any knowledge about that decision or how your assessment of strategic risk played into that decision, any more information that you can provide to the Commissioner?

MR. DODSON: No, not at all. We were out of the project for a couple of years, so we had no input to that. We just – when we did the assessment, people were disappointed in the value. They were looking for a lower value. That's all I can tell you.

MS. O'BRIEN: Okay. And I actually believe we might've had evidence on this already.

So you're saying when you did your analysis, the strategic risk was much higher than people at Nalcor had expected it to be?

MR. DODSON: The total cost.

MS. O'BRIEN: The total cost.

MR. DODSON: Yeah.

MS. O'BRIEN: Okay.

And, ultimately, you know that they were – the total cost was higher than they expected it to be and that affected the economics of it, but you don't necessarily know, exactly, why the final decision was made –

MR. DODSON: No.

MS. O'BRIEN: – to go with Muskrat Falls first –

MR. DODSON: Not at all. No. And I was – I just was really saying maybe the cost did not allow the project to go forward. I had no hard evidence of that.

MS. O'BRIEN: Okay. All right.

Thank you, Mr. Dodson. Those are my questions.

If you would just stay where you are, I'm going to retire to another table and other counsel will have an ability to ask you questions.

MR. DODSON: Okay.

MS. O'BRIEN: Thank you.

THE COMMISSIONER: All right.

Now, the Province of Newfoundland and Labrador.

MR. RALPH: No questions, Commissioner.

THE COMMISSIONER: Okay.

Nalcor Energy.

MR. SIMMONS: Good morning, Mr. Dodson.

My name is –

MR. DODSON: Good morning.

MR. SIMMONS: – Dan Simmons. I'm the lawyer here for Nalcor Energy, and it may take me just a moment to get set up here.

THE COMMISSIONER: Can you just speak up just a bit, Mr. Simmons, please?

MR. SIMMONS: Okay. Thank you, Commissioner. Yes, I'll do my best.

Okay, Mr. Dodson, I just have a few things for you. And I'm going to start – to make sure I've understood your evidence about what the typical or standard recommendations are that are made by your consulting company around the use of P-factors.

So if I understand your evidence correctly, you divide the analysis of risk into tactical risk and strategic risk. And for tactical risks, it's conventional to use a P50 factor for valuing the amount of contingency to be carried in an estimate for the project. Do I have that part right?

MR. DODSON: Yes. I mean, that's basically our methodology. It's done differently by others, but that's our methodology.

MR. SIMMONS: Right.

Now, in the risk assessment document that you were referred to earlier, and you've had some pages provided to you – in addition to the presentation dealing with strategic risk, there's also a presentation there that deals with the evaluation of the estimate and states the amount of contingency that is recommended to be carried. You're familiar with that?

MR. DODSON: Right, yes.

MR. SIMMONS: And in that presentation, the recommendation, I believe, is for a P50 value to be used for the tactical contingency, which equates to $386 million or 7 per cent of the estimate amount. Do you recall that?

MR. DODSON: Correct. Provided the project can be executed as planned.

MR. SIMMONS: Pardon me?

MR. DODSON: I said provided the project can be executed as planned. I believe there's a condition on that.

MR. SIMMONS: Okay, good.

So is there a difference then in the willingness of your company to make recommendations to clients about the P-level that they should use for a tactical risk assessment compared to what you're willing to do for a strategic risk assessment? Because the presentation that's included in these materials for tactical risk does seem to have a positive statement that P50 is an appropriate value to use.

MR. DODSON: Well, we have a lot of discussion on that as to what is an appropriate team target. Many clients believe that the estimate itself to be the team target.

MR. SIMMONS: Mm-hmm.

MR. DODSON: We think that's a little bit unfair because estimating is a human process. It's not something that is provided by rules. There will be omissions. There will be errors. That's the nature of the animal.

So for a team target, we believe that it could be higher than the estimate itself. The convention that we've arrived at over time and experience is the P50 value is a reasonable team target. But saying that, you have to consider anything you're leaving out of that in strategic risk.

MR. SIMMONS: Okay.

So I'm not sure if I've got an answer to the question, and maybe I didn't put it to you very well.

MR. DODSON: Let me make it simple, all right? The team should only be tasked with what they can manage.

MR. SIMMONS: Yes. Okay.

MR. DODSON: And everything in the tactical risk should be something that can be managed.

MR. SIMMONS: Right, so –

MR. DODSON: If it cannot be managed, it has to be picked up in strategic risk.

MR. SIMMONS: Right. So my question concerns the willingness of Westney to make recommendations to clients about P-factors that should be used.

My take out of your evidence, and what I see in the presentations that were given to Nalcor, is that Westney was willing to make a positive recommendation for a P50 value for a tactical risk, but that for strategic risk, the written material only includes a range of P25 to P75, rather than saying, for example, we recommendation that you use P75 and putting that in the presentation.

MR. DODSON: Well, we don't use the word "recommend." We state that the evidence of the outcomes from the strategic risk assessments we had done over the years, and there's literally hundreds of those, is the project final outcome is in the range of the P75.

MR. SIMMONS: Right. Is there a reason why you wouldn't use the word "recommend" when you're discussing the strategic risk results?

MR. DODSON: No. The problem is anything is possible. That's been a lot of the argument here. P50 is possible.

MR. SIMMONS: Mm-hmm.

MR. DODSON: All right? If 50 per cent of time is likely, the reality is when you do these assessments, and this was six or seven years ahead of the completion of the project, you don't know everything.

MR. SIMMONS: Mm-hmm.

MR. DODSON: So, you know, the economy could tank. People could be standing in line to work on the project. You possibly could get the P25 value. So on a long-term megaproject, we would never say: Absolutely, you must use a P75. We would say this is the predicted range.

MR. SIMMONS: Right. So the Westney –

MR. DODSON: And you need to pick up the risk that you didn't consider in the tactical risk.

MR. SIMMONS: Okay.

So the Westney policy, then, on what it tells clients or the advice it gives clients on planning for strategic risks is – your policy is to give them a range of outcomes and value the strategic risk associated with those ranges, P75 to P75 –

MR. DODSON: (Inaudible.)

MR. SIMMONS: – but not to take a position, with the client, on what they should choose within that range. Do I understand that correctly?

MR. DODSON: Well, not exactly. We give guidance and our –

MR. SIMMONS: Mmm.

MR. DODSON: – experience has been outcomes in the P75 range.

MR. SIMMONS: Right, okay. All right, well, come –

MR. DODSON: They can ignore it – they can ignore it and they routinely do.

MR. SIMMONS: Right. So I have a couple of questions coming out of that. One is that if your policy is to give guidance, why not include that guidance in the presentation that you were referred to by Ms. O'Brien? Because I don't see anywhere in there that there's a statement that we advise or we recommend or our preference is or it would be wise to choose a P75 level. I don't see it in there.

MR. DODSON: No, and I don't think you'll find it in any report we've ever written.

MR. SIMMONS: Right. So you – do you – what do you understand about the use that gets made of reports like this that you deliver to clients?

MR. DODSON: They serve as guidance in choosing the values they decide to sanction.

MR. SIMMONS: Right. And I think it stands to reason that you would expect that these reports are going to be relied upon by decision-makers who are going to make important decisions about risks associated with proceeding with the project.

MR. DODSON: Well, I would not say rely upon.

MR. SIMMONS: No?

MR. DODSON: They should be used as guidance. In fact, our current conditions would say do not rely upon but use them as guidance.

MR. SIMMONS: Okay.

MR. DODSON: Because we're simply taking their information and putting it into probabilistic analysis for guidance about the ranges of outcomes.

MR. SIMMONS: Mm-hmm. Okay. So your position is that your advice on the P-level to choose for strategic risk is guidance, but you qualify your work to say that it should not be relied upon. Do I have that correct?

MR. DODSON: It should not be used to make – to rely upon for financial decisions because the range is P25-P75.

MR. SIMMONS: Okay. Thank you.

Now, you've given some evidence in response to questions from Ms. O'Brien about discussions with members of the project management team on the Lower Churchill Project – specifically Mr. Harrington and Mr. Kean – about strategic risk and about whether it should be a P50 or a P75 or even a P90 value.

Mr. Harrington has given evidence here at the Inquiry last fall, and his evidence had been that while he recalls there being discussions about the need to be conservative or cautious in relation to strategic risk, he didn't have any recollection of there being discussion with you about a P90 number or a recommendation about the choice of the P75 number. So I'm not – just want to tell you that and get your reaction to that and see if you have any comment on it.

MR. DODSON: Well, I'm not Mr. Harrington, and I don't know what he recalls. He was in the room when those discussions were had, but what he heard is his own interpretation.

MR. SIMMONS: Okay.

MR. DODSON: He was focused on the validity of the estimate.

MR. SIMMONS: The – Ms. O'Brien brought you to the transcript of your interview on

January 28, and she read you a portion from page 6. It just follows where you stated: So our typical approach is P50 tactical risk and P75 strategic risk. And she asked you who you recall giving advice to, and that was about potentially using a P90 value for a strategic risk. And you had said it was Jason Kean and Paul Harrington.

And at the bottom of that page there is another question, and Ms. O'Brien asked: Okay. And what about the – because of the higher political risk – the recommendation for P90? Is that advice you gave once or multiple times? And your answer was: Maybe. Not much. I mean, I didn't make a big deal of that. I just said, if this was my project, I would go with P90.

So can you tell me a little more about how much discussion there was about the possibility of using this higher P-factor and what kind of emphasis you put on that? In light of those comments you made in your interview.

MR. DODSON: I would say there was almost no discussion. It was dismissed.

MR. SIMMONS: Almost no discussion.

MR. DODSON: Yup.

MR. SIMMONS: Is it anything that you pursued with anyone else at Nalcor?

MR. DODSON: No.

MR. SIMMONS: And you didn't consider putting a note in your report to that effect so that anyone else reading your report would have been aware that you had made those statements?

MR. DODSON: No.

MR. SIMMONS: Okay.

Now, do I understand correctly that you've said that your experience with projects is that the actual outcome of the projects tends to come in in the range of P65 or P70 based on the risk assessments that were done at the outset of the project. I'm putting some words in your mouth, but I want to understand –

MR. DODSON: Yeah, that's close. We would say actually P65, P85. They've been very, very close, historically, to the P75.

MR. SIMMONS: And – so I have a question about that. The object of doing the risk assessment initially – the object is to come up with as accurate an assessment as possible of what the project outcome might be. Is that correct?

MR. DODSON: That's correct.

MR. SIMMONS: Right.

And if a P50 value is the prediction of the cost where there's an equal chance it will cost more or an equal chance it can cost less. Is – that's a way of understanding what a P50 value is?

MR. DODSON: That's correct.

MR. SIMMONS: Okay.

So if that is what is intended, I have trouble reconciling your evidence that you assign a – P-values at the – when you do an assessment where P50 has an equal chance of being higher or lower, but then you say that the outcomes you see are that projects come in at P65 or P75. That – I have trouble squaring that and I don't understand why your process is not amended or revised to reflect the outcomes that you see overtime.

MR. DODSON: Well, we do risk assessments at later stages of the job and the risks are not the same. When we're doing these risk assessments at (inaudible) stage – actually, this job, it's probably better to find the most –

MR. SIMMONS: Right.

MR. DODSON: – but we don't know everything. We don't know –

MR. SIMMONS: Mm-hmm.

MR. DODSON: – the future, so we're making predictions on the future. And the reality is we're not P50-data-driven at the time the assessment is made. So we're probably data-driven somewhere, you know, less than P50.

MR. SIMMONS: Right.

Well, it would seem –

MR. DODSON: That's why I would never choose it.

MR. SIMMONS: Okay.

MR. DODSON: We don't know everything.

MR. SIMMONS: Right.

So it would seem to me that if your observations of multiple projects, and many years of experience are that the most likely outcome of your risk assessment is that project costs will be at the P65 or P75 level, that that would be a crucially useful piece of information to include in your report to your client so that they do not misinterpret the results of the risk curve.

MR. DODSON: Well, statistically, that's incorrect – statistically, it can be P25 to P75.

MR. SIMMONS: Okay.

MR. DODSON: It can be lower. People – historically, before we had this great change in productivity, P50 used to be realized. I haven't seen it realized in many years, but it is possible.

MR. SIMMONS: Okay.

Okay, so I have a question for you about the slide that Ms. O'Brien referred you to. And we can't bring it up on the screen but it is in Exhibit P-00130 and it is at page 287.

MR. DODSON: Sorry.

MR. SIMMONS: And my copy is on my computer, which is gone to sleep, so it will take me just a moment to bring it up here.

MR. DODSON: Okay, no problem.

MR. SIMMONS: This is the slide that presents the mean value of $497 million.

MR. DODSON: All right.

MR. SIMMONS: You may recall that.

MR. DODSON: Yes.

MR. SIMMONS: And my first question is: Why is this information included here?

I understand from your description of the way the risk assessment works, why the risk curve would be included, which has the P25 to P75 range, and that management can then choose where they want – how much risk they want to accept in that range.

But this slide uses strategic – is says: "Strategic ... Exposure (Mean Impacts of Risks)."

So, maybe, first, you can just explain to me how these numbers are arrived at, and what this $497-million figure is.

MR. DODSON: Okay.

Probabilities are not added. The mean is simply the average of all the simulations. If you take 10,000 values and –

MR. SIMMONS: Mm-hmm.

MR. DODSON: – you divide by 10,000 – that's your mean value.

So, you can add mean value, so that's why it's used. So, you can go back and do an analysis. Some people call them tornado charts – what risk had the most impact on an average.

So this is showing the risks that have the impact on the average in the outcome. But the 497 is not the P50. It's close, but it's not the P50.

MR. SIMMONS: Okay.

So what use is the reader meant to make of this calculation of the $497-million mean value of the impact of risk? What's that intended to convey?

MR. DODSON: The 497, itself, is not useful. The details of where the risk comes from is useful. I can say you can't add those probabilities, but you can add the means.

MR. SIMMONS: Well, this presentation is – it's got Westney's name on it.

MR. DODSON: That's correct, and we do this consistently. You can do the same with a tornado chart. In all standard risk assessments, you'll find a tornado chart. We believe the waterfall is easier to understand.

MR. SIMMONS: Well, then, why do you include this information in the presentation if it's not particularly useful?

MR. DODSON: Well, it's useful in showing you the impacts.

MR. SIMMONS: Okay.

I was interested to hear you say that for strategic risks, although your advice is usually to go with something in the P75 range – which is not included in your report, but in this case given orally to people on the project management team – you said that clients typically ignore our advice. So in your work in the industry and with multiple clients, I wonder if you can give us some comment on what you observe to be the industry practices as opposed to what the advice is – what – the practice of parties engaged in large-scale projects, such as this is, about how they treat strategic risks?

MR. DODSON: Well, it varies considerably. But typically, the project team is optimistic – and they need to be optimistic, right? They're – and these projects are very difficult, you have to keep a positive attitude about what you can do. So, most experienced people that have multiple capital projects, they are sort of jaundiced to the team's view, but they don't want to change that. That's why, like I said earlier, many times they will give them a stretch target that's impossible. The team target should be reasonable, but it should be a low value –

MR. SIMMONS: Okay.

MR. DODSON: – in terms of the total outcome because the risks that are in the strategic risk are generally not controlled by the project team.

MR. SIMMONS: Right.

So aside from the level of the project team, have you made any observations of what industry practices, generally, are about whether strategic risks are recognized in budgets or how they're recognized in budgets?

MR. DODSON: The more experienced capital project companies recognize it.

MR. SIMMONS: Okay.

And have you observed whether there are projects where strategic risks are excluded from budgets?

MR. DODSON: Yes.

MR. SIMMONS: And how common is that?

MR. DODSON: Very common with developers.

MR. SIMMONS: Very common …?

MR. DODSON: With developers.

MR. SIMMONS: With developers. Okay.

MR. DODSON: Generally, there is a break on that of financial institutions. The financial institutions always demand the high values.

MR. SIMMONS: Okay.

I just have, kind of, a clarification question for you when you were talking about work on risk ranging for strategic risk. And you'd been asked some questions involving political risk and it led to some discussion about whether the high input number should be as high as $2 billion.

Do you recall that?

MR. DODSON: Yes.

MR. SIMMONS: Okay.

So, I think I understood what happened there, but let me go through it and see if I have this right and you can explain it. The risk ranging in – for a particular type of risk involves identifying the low end of the value of the risk –

MR. DODSON: Correct.

MR. SIMMONS: – and the high end of the value of the risk. And the assumption is that the risk, if it materializes, may turn out to be anywhere between the low value and the high value.

MR. DODSON: Correct.

MR. SIMMONS: Is that much correct?

MR. DODSON: Yes.

MR. SIMMONS: And within that range, is there an assumption that there is an equal probability that the risk might materialize anywhere between the low and the high? Or is there greater weighting put on values that are in the middle of the range?

MR. DODSON: Depends on the distribution that is used for the simulation. A normal distribution would spread them equally.

MR. SIMMONS: Would spread them equally.

MR. DODSON: If – yeah. Project risks are not normal distributions.

MR. SIMMONS: Right.

MR. DODSON: They're skewed. So typically the project risk distribution, either the one we use or have used in the most common program there is – would say, it's more likely toward the higher end of what we call a fat tail.

MR. SIMMONS: Okay.

So do you know what type of distribution was used for the strategic risk modelling in 2012 here?

MR. DODSON: A fat tail.

MR. SIMMONS: Okay.

THE COMMISSIONER: I'm sorry, I didn't get your answer to that.

MR. DODSON: This is – I don't want to get complicated here, but it's not a normal bell curve. It's a skewed bell curve to the right. Generally, projects – when they have problems, they just get worse. So our distribution is one that we've developed, looking at project outcomes from the initial estimate. So it is skewed to the right.

MR. SIMMONS: Okay.

MR. DODSON: So if you put in $2 billion, for example, you wouldn't get a value at P50 that's 50 per cent. It would be more like 60 per cent.

MR. SIMMONS: Okay.

MR. DODSON: And actually, that's a little difficult because P50 is normalized in a process. The skew begins past P50. So the P75 would be more skewed than the P50.

MR. SIMMONS: Okay.

So the – I guess the simple point I want to understand here is that $2 billion was not an outcome predicting that a strategic risk –

MR. DODSON: No, no.

MR. SIMMONS: – of $2 billion would materialize.

MR. DODSON: It's a P95 input – highly unlikely.

MR. SIMMONS: All right. It is an input into the range that's then used to calculate the strategic risk at different P-values.

MR. DODSON: Yeah. Against – there's an – in this case, there was an input – a guesstimate at P5, and a guesstimate at P95. The $2 billion is the P95 input.

MR. SIMMONS: All right. Okay. Just one moment. Okay.

Thank you very much, Mr. Dodson. I don't have any other questions for you.

MR. DODSON: Thanks.

THE COMMISSIONER: Concerned Citizens Coalition.

MR. BUDDEN: Good morning, Mr. Dodson. My name is Geoff Budden. I'm the lawyer for the Concerned Citizens Coalition. We are a group of – or the coalition is a group of individuals who, for many years, have been critics of the Muskrat Falls Project.

I don't have a lot of questions for you today, but I've got, basically, two or three areas I'd like to cover. Can you hear me okay?

MR. DODSON: Yeah, I hear you fine.

MR. BUDDEN: Okay. The – I have in front of me the notes from the telephone interview you did with Angie Brown of Grant Thornton back in November of 2018.

MR. DODSON: Yes.

MR. BUDDEN: And they were discussed earlier. I believe the exhibit is P-01907. And I realize it's not a transcript, but you made certain comments there. Ms. O'Brien asked you some questions about it, and I'm going to ask you questions about another section of your – of those notes. And I'm looking at page 7. They're not numbered, but it's the –

MR. DODSON: Okay.

MR. BUDDEN: – third page from the back if you have in front of you?

MR. DODSON: (Inaudible.)

MR. BUDDEN: It's fairly short, so if you don't, don't worry about it. I'll read it to you.

MR. DODSON: Okay. I got it.

MR. BUDDEN: Sure. So it's the third page from the back.

MR. DODSON: Okay.

MR. BUDDEN: You – near the end is a bit of a wrap-up section, but Ms. Brown asked you, anything else you wish to share?

And this is about two thirds of the way down – and the notes say, "No; Pretty typical." And then the part that I'm interested in – quote – "Team assembled by people available in Newfoundland; More focus as a public company; Don't think private company would have" – the same team – "would have same team but that's the way it is."

And then on the next page, sort of in the same vein, you say – you're asked, "**Their driver purely economic do you mean how they staff team?**" And you say: "Probably economics, but more on their ability to do project; It was a political desire to do the project; They found the best resources they could locally."

So I guess I'm just going to ask you really, I guess, what did you mean by that particularly that you don't think a private company would have the same team, but that's the way it is.

What did you mean by that, Mr. Dodson?

MR. DODSON: Well, they probably would not have hired primarily (inaudible). They would have often come in with specific experience.

MR. BUDDEN: Sorry, I didn't hear that at all.

Would you mind –

MR. DODSON: This team was assembled from local people primarily and people that didn't have extensive hydro experience. You know, people that are trusted with their shareholder's money generally don't last (inaudible), so they would be looking for the most experienced people they could have.

THE COMMISSIONER: Okay.

MR. BUDDEN: Okay.

THE COMMISSIONER: We are having some trouble with the sound here, 'cause I'm having difficulty hearing you. And it's not your fault; it's – so I'm just trying to give a little message to the technical people in the back.

Like, it's so hollow that I can't – like, I'm not sure if others can hear but –

MR. BUDDEN: Same problem.

THE COMMISSIONER: I'm have difficult hearing what you have to say, so unfortunately I have to go back and ask you to repeat your answer again as slowly as you can so that we can actually hear what it is you're saying.

MR. DODSON: Okay.

But the answer was – and this was discussed. There's no secrets here. This team was assembled by experienced project people who were typically natives of Newfoundland or had been in Newfoundland for some period of time. They didn't go seek hydro experience outside.

MR. BUDDEN: Okay, so it was the best that could be assembled – or at least it was the team that could be assembled from the talent on hand, locally?

MR. DODSON: Yes.

MR. BUDDEN: Okay.

And then you go on to say some comments about how a – under "**Explain?**" and you say, "Well they had 2 or 3 people who worked on dams and the rest on oil and gas," and then you say: "Once they brought in SNC who built more dams than anybody else in Canada; They had the right resource to offset the risk."

And again, if we turn to page 8, you had a fairly colourful quote there. You say, "… they tried to solve the problem by hiring their experienced neighbour next door."

So perhaps you could just expand on that a little bit.

MR. DODSON: Well, I don't know all of the history of Newfoundland and Quebec, but I think it's fairly troubled and, you know, SNC was not being considered; Hatch bid all the initial studies on this project. But, you know, they were able to find a team from SNC that came from projects that – I don't know the exact number of kilometres between Péribonka and Muskrat Falls, but it's minimal. So they were – they both get a team that had very good local experience in similar hydro projects.

MR. BUDDEN: Sure, and that was the reality, as you understood it, when you did your 2011, 2012 risk assessments. I'm correct there, am I?

MR. DODSON: 2010 was not based on SNC-Lavalin's experience.

MR. BUDDEN: Okay.

MR. DODSON: It was based on general market experience.

MR. BUDDEN: Sure. But the 2012 was?

MR. DODSON: 2012 was heavily leveraged toward a team who had done similar projects and had resources that were experienced in the area.

MR. BUDDEN: Okay.

We've heard evidence from other witnesses – and this is not in contention – that in March of 2013, which – just a few months after the sanction – Nalcor transitioned from an EPCM model for developing Muskrat Falls – that is, an engineering procurement and construction management model in which SNC-Lavalin was responsible constructor – to a Nalcor-led integrated team approach.

And my question to you is how would this change – which essentially saw the experienced neighbour next door have its role reduced and the best team that could be assembled locally have its role expanded – how would that factored into any risk assessment you might have made?

MR. DODSON: Now, this one of those things that we didn't know at the time. If we had known this was going to happen, there would've been a strategic risk for a change because you go from a high level of experience to a lower level of experience. I know very little about why that change came about, but the risk assessment in 2012 was solely based on SLI, as they call themselves, executing this project, with the experienced people from similar dams in Eastern Canada.

MR. BUDDEN: And it would've been seen as a riskier endeavour still if you'd known this change was going to take place?

MR. DODSON: Yes. We would've had a strategic risk (inaudible).

MR. BUDDEN: Okay.

MR. DODSON: In 2010, we had a strategic risk for the inexperience of the team.

MR. BUDDEN: And that would've been back in then?

MR. DODSON: Yeah.

MR. BUDDEN: Okay.

Just two sort of wrap-up areas. In your direct evidence, you spoke about foreign exchange risk, and I guess these couple of questions flow to that.

This is obviously a multi-billion dollar project that is sourcing material from all over the world and components from all over the world. My question is: In what currencies would such components, ordinarily, be written or denominated?

MR. DODSON: Well, it's a basket. I mean, you have yen and euros and Brazilian reals and Canadian dollars, US dollars – at least those currencies. And you can have others in the basket.

MR. BUDDEN: Okay.

And obviously currencies fluctuate over time in unpredictable ways. That also is a given, isn't it?

MR. DODSON: Yes.

MR. BUDDEN: Okay.

MR. DODSON: (Inaudible) a big strategic risk.

MR. BUDDEN: Pardon?

MR. DODSON: A big strategic risk.

MR. BUDDEN: Yes. And –

MR. DODSON: Outside their control.

MR. BUDDEN: And again, how would that strategic risk be allocated on this particular project? How is that risk quantified?

MR. DODSON: We did – we were not involved in setting forex risk, so I have no idea of what's in there.

MR. BUDDEN: Okay.

But it clearly is a risk that, would you suggest, should have been factored into this project?

MR. DODSON: Well, typically it's part of our risk assessment. Formally, it's typical – it's typically included as a predictor of final project costs.

MR. BUDDEN: Okay.

But that wasn't, in fact, requested of Westney in this instance?

MR. DODSON: No, no. We were to do this in 2012 dollars.

MR. BUDDEN: Okay.

Finally, certain witnesses in Phase 1 defended the use of the P50 factor by essentially saying, look, we're going with P50 for Muskrat Falls because, in order to be fair, we have to go with P50 for the Isolated Island Option. And as – I believe you know this, but what Phase 1 was, it was an exercise in looking at the comparison in part – a comparison between building Muskrat Falls versus proceeding with the Isolated Island Option.

MR. DODSON: Right.

MR. BUDDEN: And I guess my question for you – the Isolated Island Option consisted of a number of things, but one of them would have been a combined-cycle power plant as being mooted to in part replace Holyrood. It also would have included several small hydro projects, really perhaps a tenth or less of the generating capacity of Muskrat Falls.

So, I guess my question to you – if you were doing a risk assessment on the one hand of Muskrat Falls, on the other hand, say, of a combined-cycle power plant, which we understand can virtually be bought off a shelf, how would your risk assessment vary between those two options?

MR. DODSON: Well, we didn't do one so that's not easy to say. But we do risk assessments on combined-cycle power – gas turbine plants routinely. Significantly less risk.

MR. BUDDEN: Pardon?

MR. DODSON: Significantly less risk.

MR. BUDDEN: Significantly less risk.

Thank you. I have no further questions.

MR. DODSON: Much higher fuel cost.

MR. BUDDEN: Sorry?

MR. DODSON: Much higher fuel cost.

MR. BUDDEN: Thank you.

THE COMMISSIONER: Right. Edmund Martin?

MR. SMITH: No questions, Mr. Commissioner.

THE COMMISSIONER: Kathy Dunderdale?

UNIDENTIFIED MALE SPEAKER: No questions, Commissioner.

THE COMMISSIONER: Provincial Government Officials ’03, ’15? Not here.

Julia Mullaley, Charles Bown?

MR. FITZGERALD: No questions; thank you.

THE COMMISSIONER: Thank you.

Robert Thompson?

MR. COFFEY: Good morning, Sir. My name is –

MR. DODSON: Good morning.

MR. COFFEY: Good morning. My name is Bernard Coffey. I represent Robert Thompson, who was the chief civil servant at one point and a deputy minister at another point. I just have one or two questions.

You – in responding to questions earlier you’ve said that – I believe I’ve got you correct – that you find that, typically, clients of Westney ignore your advice or routinely ignore your advice or don’t take it. Could you tell the Commissioner, from your perspective – because you’ve been at this a long time, decades and decades – what’s your assessment as to why they typically or routinely don’t accept your advice?

MR. DODSON: Purely optimism. Purely optimism – they assume that what happened to other projects won’t happen to themselves.

MR. COFFEY: And optimism – and that’s referred to, of course, as optimism bias. And another way I’m going to suggest to you to look at it is that it’s a form of – optimism bias is a form of confirmation bias. In other words, they – they’re predisposed to believe that they are better than average; we’re better than – it will turn out better for us.

MR. DODSON: That is correct. And in this case they actually have hard data via Lavalin from projects in the region, so this was better grounded than most of them we look at. Also, the – there was not a lot of – the design was 50 per cent complete. That’s unusual; generally it’s much less.

MR. COFFEY: So that – from your perspective, as the consultant at the time, there was at least – in this particular instance when to the extent that Nalcor did not take Westney’s advice, at least as the consultant, you could – they could articulate to you and did articulate to you as to why.

MR. DODSON: Yes.

Also, I don’t think it’s been said: This was going to get a public test in the bid. So there was another round of true risk assessment in the bid.

MR. COFFEY: I’m sorry; I couldn’t hear you.

MR. DODSON: This project was going for public bid and the plan was to go when it was 100 per cent designed. I don’t know if that happened or not, but there was another test of this value by the market coming with a guarantee to them being asked.

MR. COFFEY: Now, in response to, I think, the first or second question that Mr. Simmons asked you – and he was, I think, asking you a question in the context of carrying out risk assessments – and he put it to you in terms of dividing them into tactical risk and strategic risk. And you did, though, in responding, you said:

Well, that's the way, you know, Westney does it but it's done differently by others. Others take different approaches – other consultants do.

Could you perhaps, for the Commissioner, describe what you would see as the other chiefs' different approaches?

MR. DODSON: Well, typically it's around setting stretch targets per team. Many people believe that – in the business world – that things should be charged with the ultimate stretch target. It's a bit dangerous in the project business because there's many things that, you know, are not controllable. They're likely controllable by the team. They can do a lot about it. We think a fair goal for a project team is 50 per cent (inaudible) – saying that, you know, half the time they should be able to make the scope.

MR. COFFEY: Okay, so is it that they're just two different approaches?

MR. DODSON: It's a philosophy (inaudible) –

MR. COFFEY: Pardon?

MR. DODSON: A philosophy – a stretch goal versus what we would describe as a reasonable target.

MR. COFFEY: And is one approach or the other, from your perspective, the prevalent approach?

MR. DODSON: Yes.

It's the reasonable target. The stretch goal leads to irrational decision-making.

MR. COFFEY: I'm sorry; would you repeat that?

MR. DODSON: I said: Generally the stretch goal leads to irrational decision-making.

A reasonable goal has a much better chance of appropriate decisions being made. The team will try to do the best they can, but sometimes they don't put values on what is the best they can do.

MR. COFFEY: Thank you, Commissioner. Thank you, Sir.

THE COMMISSIONER: Thank you.

Consumer Advocate?

MR. HOGAN: Good morning.

My name is John Hogan; I'm counsel for the Consumer Advocate.

MR. DODSON: Good morning.

MR. HOGAN: I just want to go back again to – Ms. O'Brien was asking you about Gull Island – excuse me – and your review of Gull Island. In your interview, you said the cost was too high, way too high, huge strategic risk.

I'm just wondering if you could comment on what those huge strategic risks were.

MR. DODSON: Unfortunately, I don't have that report. We've changed our filing system. I can only look at the 2010 assessment. In the 2010 assessment, we had 36 strategic risks.

MR. HOGAN: Okay, but you recall, obviously, with regards to Gull Island there was huge –

MR. DODSON: I think it's the same risk with higher values.

MR. HOGAN: Just higher values. Okay.

The follow-up question I have is – I'm not sure if you were aware, but when Muskrat Falls was announced it was announced as phase one of this total Lower Churchill Project, which –

MR. DODSON: Right.

MR. HOGAN: – (inaudible) phase two to come, which would be Gull Island.

MR. DODSON: Right.

MR. HOGAN: Are you aware of that?

MR. DODSON: Yes.

MR. HOGAN: And do you find that surprising, at all, given that they were told there were huge strategic risks which would make that project unlikely?

MR. DODSON: Well, people build costly projects all the time when they have, you know, a consumer base to do it. This is not unusual. I mean, every nuclear power plant has significantly higher risks than this project, but they still are constructed. So, you know, does clean power drive the equation or do people go for lower cost (inaudible) projects.

MR. HOGAN: I guess, the way I see it, is that you were warning them that it was – it sounded like Gull Island was not possible and then for the –

MR. DODSON: No, no. It's very possible.

MR. HOGAN: But with –

MR. DODSON: It's just a matter of money.

MR. HOGAN: Okay, it was just a matter of money.

MR. DODSON: Yeah.

MR. HOGAN: Okay.

And the risks being more significant for Gull Island than it would be for Muskrat Falls, back when you did your analysis?

MR. DODSON: It's a much larger project.

MR. HOGAN: Thank you.

MR. DODSON: But this project, from a quantity perspective, was very low. For example, the Péribonka I think they had two – I (inaudible) remember this – it's 10 times the size of volume in this job. So, this job, in terms of hydro projects, is pretty small.

MR. HOGAN: Okay, thank you.

On the issue of political – or I guess, sorry – public projects and you suggesting a P90. I just wanna – if you can clarify the exact reasons for why you would use a higher P-factor because it's public – a public project.

MR. DODSON: Well, the history of intervention and protests and changes in government.

MR. HOGAN: Sorry. Could you –

MR. DODSON: Obviously you have a different idea about the viability of this project than others.

MR. HOGAN: Could you just repeat that? I guess I'm having some trouble. I'm not hearing you.

MR. DODSON: I said, obviously you have a different view of the viability of this project than do others. So those views come and go, ebb and flow over the life of the project. I think, if you checked, you know, public projects you will see there's always been intervention, discussion, delays, stoppage of work.

MR. HOGAN: So I'll put some words in your mouth; you can tell me if I'm correct. That there's going to be increased public scrutiny with a public project as opposed to a private project.

MR. DODSON: Absolutely.

MR. HOGAN: So an owner is safer to use a higher P-factor to give themselves more room in terms of a budget.

MR. DODSON: Yes.

MR. HOGAN: And what about the fact that they should do that anyways because the funds being used are public funds as opposed to private funds, so just for that reason alone they should use a P90 rather than a P7, because it's not private money, it's public funds and there's an obligation as trustees of the public purse to ensure that those funds are being spent within a budget.

MR. DODSON: I don't know about that. That's beyond my normal scope.

MR. HOGAN: Okay, thank you.

You did say in your transcript as well and I think some evidence today that they wanted to keep the costs down. Mr. Budden raised with you the Isolated Island Option. So you were aware that the budget for this was being compared to another project, correct?

MR. DODSON: No.

MR. HOGAN: No or yes?

MR. DODSON: No.

MR. HOGAN: You weren't, okay. So I'm telling you now, I guess, that there –

MR. DODSON: I mean, I know it in hindsight, but I didn't know it in 2012.

MR. HOGAN: Okay.

MR. DODSON: We –

MR. HOGAN: Back when you were doing your assessments, then, did that ever come up as a reason to keep the cost of this project down, specifically because it was being compared to another one?

MR. DODSON: No, no. The reason to keep the cost down was to keep the cost of power down.

MR. HOGAN: Sorry, say that again.

MR. DODSON: The objective was to keep the cost of the power down.

MR. HOGAN: The cost down?

MR. DODSON: Yes.

MR. HOGAN: Yeah, and you gave some evidence that they wanted to keep the cost down, and I think you said there might've been some conflict of interest there because they wanted the project to proceed, correct?

MR. DODSON: Well, there's –

MR. HOGAN: As does every owner.

MR. DODSON: There's always a difficultly in that equation. I mean, they had a lot of confidence here. Lavalin had a lot of confidence. We couldn't say they were wrong.

MR. HOGAN: No, I understand that.

MR. DODSON: We just cautioned them.

THE COMMISSIONER: Mr. Hogan, I'm just going to step in, just here, right now.

It seems like the quality of the sound is getting worse as we're going along. I don't know if my ears are getting tired or what. But I think what I'd like to do – we haven't taken the morning break, other than the break to straighten out the exhibit. And I'd like to try to ask the technical people to reconnect with the witness to see if we can get a better line or something, because I am finding it more difficult to hear exactly what it is Mr. Dodson is saying.

So, Mr. Dodson, we're going to take a bit of a break and we're going to try to rejig this and to hopefully –

MR. DODSON: Okay.

THE COMMISSIONER: – to get you a little bit clearer on the audio here.

MR. DODSON: All right.

THE COMMISSIONER: So we'll adjourn here for about 10 minutes, just to see what we can do.

CLERK: All rise.

Recess

THE COMMISSIONER: Sorry about that, Mr. Dodson and Mr. Hogan.

MR. DODSON: No problem.

MR. HOGAN: Mr. Dodson, if I could just – I want to read something (inaudible) –

MS. O'BRIEN: Your mic isn't on.

MR. HOGAN: Is it on? It's on now? Okay.

MR. DODSON: The light just went on.

MR. HOGAN: Here we go again.

Mr. Dodson, I'm going to read out just a couple sentences from your transcript, your interview transcript. And you say: I can't, you know, and they will. And SNL, I'm sure, will argue if Nalcor left me alone, I could have done it that way. So, I don't know, you know, but nobody is. The actual rates that they ended up with on this project are very, very competitive on a worldwide benchmark basis.

Now, I think, you talked about that a little bit with Ms. O'Brien –

MR. DODSON: Yes.

MR. HOGAN: – earlier this morning.

So, my question is, if the rates that they actually did this project on are okay – we know that they were over budget, I guess, I'm specifically referencing the Astaldi contract – what does that tell you about the estimates in the first place? Was there an issue with the estimates? Or was there an issue with the risk assessment on the estimates after the fact?

Can you discuss –

MR. DOBSON: The estimate –

MR. HOGAN: – that?

MR. DOBSON: The estimates – I think both SNC-Lavalin and Astaldi did not recognize the change of world productivity. And they weren't the only ones.

There are numerous projects that were estimated in the same time period that had suffered about the same fate as this project, a billion or two dollars of more than the estimate.

MR. HOGAN: So those estimates were low –

MR. DOBSON: Yes.

MR. HOGAN: – from the first place, from the outset.

MR. DOBSON: Compared to the world today.

MR. HOGAN: Okay. And there were –

MR. DOBSON: But the actual performance was quite good.

MR. HOGAN: Okay. And there were comparisons, obviously, available at that point in time to show that the estimates were not in line with what we were seeing in the world.

MR. DOBSON: No. There were just trends developing and that's what we were discussing at the time, that we were seeing this in multiple parts of the world.

MR. HOGAN: So the actual payments on that contract were more in line with what a reasonable estimate would've been.

MR. DOBSON: Yes.

Actually, they did better. The actual performance is actually quite good.

MR. HOGAN: Okay.

I just wanna ask you – I'm gonna ask you to elaborate on this as well from your interview transcript.

You say: Typically, on a dam – it's filled with material and then you pour concrete face on the front of it. That's not this dam. This dam – we closed the river with structural concrete. So it's a different kind of animal. That's part of the problem. We were comparing to those SLI benchmarks.

Can you –

MR. DOBSON: Yes.

MR. HOGAN: – discuss what you mean there?

MR. DOBSON: Well, I don't know in-depth any of those projects.

I did work at Péribonka and it's much more of the typical dam construction of 20 million cubic metres of fill material. This project has five.

MR. HOGAN: So were they the wrong benchmarks?

MR. DOBSON: So much more concrete.

MR. HOGAN: Was it the wrong benchmarks?

MR. DOBSON: Could be.

MR. HOGAN: You don't know.

MR. DOBSON: No, I don't know. I don't know the details.

I could just tell you that the concrete that I saw in Péribonka is much easier than the concrete here, by a significant amount.

MR. HOGAN: Okay.

Well, if it's easier –

MR. DOBSON: So –

MR. HOGAN: – and they're using it as a benchmark, then – it sounds like to me – it's not the appropriate benchmark.

MR. DOBSON: Exactly.

MR. HOGAN: Okay. Thank you.

MR. DOBSON: But I don't know in detail. I don't know that – I don't know about just how much concrete was poured at Péribonka and what (inaudible). But the face of the dam was a lot easier.

MR. HOGAN: I just have another question on a little sentence from your transcript.

You said: It looks good on the surface – I think you're talking about Astaldi's bid here – and then it says, the problem is when you start smelling around about Astaldi's history. It's not that good.

And then you don't get in any more detail, so I'm gonna ask you now if you can just go into some more –

MR. DOBSON: I –

MR. HOGAN: – detail.

MR. DOBSON: – probably won't get into a lot more detail. I suggest you do your own research.

MR. HOGAN: Pardon me?

MR. DOBSON: I suggest you do your own research.

MR. HOGAN: Well, that – yeah, I can, but you're here and it's your words.

So I'm gonna ask you: What you meant by your words about smelling around about Astaldi's history?

MR. DODSON: Well, they had escaped from some similar difficulty by getting large payments at the end of the contract, negotiated closure.

MR. HOGAN: Okay.

Was this something you were aware of back in 2010?

MR. DODSON: Not at all. No, I thought – I'd only bumped up against Astaldi –

MR. HOGAN: Yeah.

MR. DODSON: – in Venezuela on the dam project. The general consensus was they did a good job.

MR. HOGAN: Okay.

Some of the words you used as well with regards to P50, you wouldn't put your own money on it.

Do you recall that?

MR. DODSON: Absolutely.

MR. HOGAN: So in Phase 1, we heard evidence from the premier – Premier Dunderdale, who was the premier at the time when the project was sanctioned. And she actually said she was satisfied with that risk being – you know, there's a 50 chance – 50 per cent chance –

MR. DODSON: Right.

MR. HOGAN: – it would go over, and she seemed to be, you know: Listen, there's a 50 per cent chance it will go under – under budget.

MR. DODSON: That's right. She's not the first to follow that philosophy.

MR. HOGAN: So that's my question is, I mean – you don't agree with that approach, obviously, do you?

MR. DODSON: No, but that's common. That's – I mean, the philosophy is: It is possible at P50. And I have to say: It is possible.

MR. HOGAN: Are you surprised –

MR. DODSON: It's just not very likely.

MR. HOGAN: Are you surprised, though? I know you have the hands-on experience with engineers and project management teams who have this optimism bias.

Are you surprised that the premier at the time took that same approach?

MR. DODSON: No.

MR. HOGAN: No? Why not?

MR. DODSON: We have that with chief executives all the time.

MR. HOGAN: Okay.

MR. DODSON: Particularly those that don't have a lot of project experience. Those that have a lot of project experience are generally more jaundiced.

MR. HOGAN: Okay. So, the more experience you have, the more likely you are to use a higher P-factor.

MR. DODSON: Right.

MR. HOGAN: Okay.

You also talked about a risk – a political risk using the P90 as a – because there could be a change of government.

MR. DODSON: Right.

MR. HOGAN: I just want to know if your opinion on whether the opposite could be true – and by opposite, I mean you wouldn't use a higher P-factor, because we heard evidence as well that if the project was going to go over budget and there had to be an issue with rates, we would have to mitigate rates because this project cost more than originally anticipated – the evidence we heard was that well the government of the day can deal with that issue.

So my question is: Is the opposite of that theory – that because it's a public project, you should use a higher P-factor – be true? Because this government then would have used a lower P-factor and said: Well, if it goes over budget, it's not our problem.

MR. DODSON: I don't know. That's beyond my pay grade.

MR. HOGAN: And the last question I have, I just want to clarify.

You said that financial institutions demand high strategic risks.

MR. DODSON: Yes.

MR. HOGAN: So what sort of high strategic risk P-factor would a financial institution look for?

MR. DODSON: Well, they look at what their exposure is in terms of the product return and, generally, they take very little risk.

MR. HOGAN: So in this case – and I know you probably don't have any evidence about what was reported to the financial institutions, but what would you expect their reporting to be, in terms of a P-factor to – when this was financed?

MR. DODSON: Well, there's always the question of contingent equity. And many times they take the P-factor, but they request contingent equity.

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

Thank you.

THE COMMISSIONER: Innu Nation is not present.

Astaldi Canada?

MR. LEARMONTH: Good morning, Mr. Dodson. My name is Paul Burgess and I represent Astaldi Canada Inc.

MR. DODSON: Good morning.

MR. BURGESS: When Westney were engaged by Nalcor in 2015, part of that engagement, I take it, was to do an assessment of Astaldi's performance up to that point in time, correct?

MR. DODSON: Well, we looked at it as a – I think we were there January of 2015.

MR. BURGESS: Right.

And as part of that, notwithstanding your comments of what you may or may not have heard or run into Astaldi on other projects, ultimately your conclusion, I take it, was that their pour of concrete rate was not just competitive on a worldwide benchmark, but better than it. Correct?

MR. DODSON: In '16 and '17.

MR. BURGESS: Right.

And as Mr. Hogan, when he just referred you to your interview, in fact your description of Astaldi's performance at that point in time was very, very good, to quote you. Correct?

MR. DODSON: Complete turnaround. I've never seen many projects achieve this kind of turnaround.

MR. BURGESS: Right.

In fact, would you not be surprised then, I take it, that at a point in time after 2016 there was a team from another project that met with Astaldi to discuss exactly how they were achieving that pour rate because they weren't doing it. That wouldn't surprise you then, I take it?

MR. DODSON: No.

MR. BURGESS: Okay.

The – I want to take you to some parts of the report, the SNC report, the Exhibit P-00130 that you have in front of you.

MR. DODSON: Yes.

MR. BURGESS: And, to me it's – the part I'm going to start off is – if you could just turn to page 25. And while I realize that that's not part of the Westney report, I assume you would've seen it. If you can just look, Mr. Dodson, please, at page 25?

MS. O'BRIEN: Mr. –

MR. DODSON: I must not have the same page.

MS. O'BRIEN: Mr. Dodson likely doesn't have that printed off in front of him. We only printed off select pages from his report.

MR. BURGESS: Okay. I thought he had said, though – did you not have up to page 50 or something, Mr. Dodson?

MR. DODSON: Well, I have (inaudible) I have page 29.

MR. BURGESS: Do you have page 25, Mr. Dodson?

MR. DODSON: I'm not sure I got the right – 25. What's on the page?

MR. BURGESS: Well, it's – at the top, it says SNC-Lavalin, Lower Churchill Project Monthly Progress Report.

MR. DODSON: Yeah.

MR. BURGESS: And it's page 5 of 10.

MR. DODSON: No.

MR. BURGESS: Well, let me explain to you, if I can, and I don't know if you will recall it, but it's in SNC-Lavalin where they go through risk assessments it looks like.

MR. DODSON: Oh, okay.

MR. BURGESS: And –

MR. DODSON: What – the next year.

MR. BURGESS: Well, the date on the top of the page is April 25, 2012.

MR. DODSON: I don't –

MR. BURGESS: Okay.

MR. DODSON: 2012?

MR. BURGESS: Yeah. So let me just explain what it is, and if you recognize it, then I'll ask you questions. If not, I guess I'll have to save the questions for SNC-Lavalin.

But it has columns across the top of the page and it has risk title, risk owner, risk category, level before addressing and level after addressing. Does that kind of a table sound familiar to you?

MR. DODSON: There was a risk register. That may be the risk register.

MR. BURGESS: And that's what it is, the risk register.

MR. DODSON: Okay. No, we've looked at the risk register.

MR. BURGESS: Right. And – then I won't go to each of the pages, but there's several pages and I – for the Commissioner's purposes, there's pages 25, pages 35, pages 41, 45 and 51 in particular. And when you go down through them, Mr. Dodson, the risk title would be things such as construction labour availability and construction labour productivity.

And if I go over to the right-hand side of those tables, I'll see a level before addressing and a level after addressing. And in those pages, in particular, for those categories, the construction labour availability and productivity – if I go to the right-hand side highlighted in red it says high, which I assume that's – is that's not telling me that's considered a very high risk? Is that what it is?

MR. DODSON: Yes.

MR. BURGESS: Okay.

And would you agree that starting construction in November on a project in Labrador such as this with the Northern climate versus, say, starting in July, that would cause a higher risk for the ability to achieve milestones if you didn't contemplate that when you were first thinking about doing the project. Correct?

MR. DODSON: Correct.

MR. BURGESS: Okay.

Mr. Dodson, are you familiar with the term open-book negotiations in your experience in construction?

MR. DODSON: Sure.

MR. BURGESS: And as I understand it – and make sure that my understanding of it is the same as yours – that's in a situation where a contractor opens up bid details and assumptions to an owner and they look through the bid to make sure it's a sensible approach and there's good faith obligations. Is that your understanding of open-book negotiations?

MR. DODSON: Yes.

MR. BURGESS: And the risks that I just highlighted to you, the SNC-Lavalin – and while I appreciate you couldn't see them, with respect to having a high risk for construction on labour availability and productivity, would you not agree, Sir, that it would be extremely important for a contractor to know if those were high risk areas or not?

MR. DODSON: Sure.

MR. BURGESS: Okay.

I don't have any other questions.

Thank you, Mr. Dodson.

THE COMMISSIONER: Thank you.

Former Nalcor Board Members?

MS. MORRIS: No questions, Commissioner.

THE COMMISSIONER: Thank you.

Dwight Ball, Siobhan Coady? Not present.

ANDRITZ Hydro Canada? Not present.

Grid Solutions Canada ULC? Not present.

Okay, redirect, Ms. O'Brien.

I'm sorry, it's the Newfoundland and Labrador (inaudible) Trades Council.

MS. QUINLAN: No.

THE COMMISSIONER: No questions, Ms. Quinlan?

Okay, thank you.

MS. O'BRIEN: Hello, Mr. Dodson. I just have a few questions on redirect.

One, in questioning by Mr. Simmons for Nalcor Energy, he asked you a bit about the $368-million 7 per cent tactical contingency that was used?

MR. DODSON: Right.

MS. O'BRIEN: And he was putting you – noting your – Westney's presentation with respect to tactical contingency. You said that there is a condition there to that, provided the project can be executed as planned?

MR. DODSON: Yes.

MS. O'BRIEN: Can you just explain for the Commissioner what is that condition endeavouring to communicate?

MR. DODSON: Well, this is how – the estimate itself was highly leveraged on hard data brought by SLI from the projects in Quebec, and then any deviation there from (inaudible).

MS. O'BRIEN: Okay, thank you.

Also if you could go to P-00130 again, and page 287 – we looked at it earlier; Mr. Simmons also brought you to this page and I'm not sure I understand the evidence yet, so I'm going to give one further attempt to try to clarify it.

MR. DODSON: I don't seem to have 287.

MS. O'BRIEN: Two hundred and eighty-seven, it's the page where it has the $497 million on it.

MR. DODSON: Oh, okay, okay.

MS. O'BRIEN: Okay.

So this is what I believe I understood following from your question, both on direct and on cross-examination by Mr. Simmons. You talked about this page and you said – you talked about waterfall diagrams and tornado diagrams.

MR. DODSON: Yes.

MS. O'BRIEN: Is this what you would call a waterfall diagram here?

MR. DODSON: Yes.

MS. O'BRIEN: Okay.

And I have seen tornado diagrams before. We get a bunch of bar charts going out, longer bars up top, narrower bars on bottom.

MR. DODSON: It may only show you the number of times that event was on the critical path.

MS. O'BRIEN: Okay.

And as I understand – please correct if I'm wrong – the purpose of doing a tornado chart, in some cases, and the purpose of this waterfall chart here on page 287, that's to help the project owners understand what are the strategic risks that are having the greatest impact on the project.

MR. DODSON: Exactly.

MS. O'BRIEN: Okay.

So, what this breakdown does is it tells the client that they have – these four strategic risks are the biggest impactors, but I also understand in addition to that you had recommended the, you know, political, social risk and the forex risk and another –

MR. DODSON: It wasn't considered.

MS. O'BRIEN: Pardon?

MR. DODSON: It wasn't considered (inaudible).

MS. O'BRIEN: Okay, but you considered that a significant risk.

MR. DODSON: I considered it a significant risk but –

MS. O'BRIEN: Okay, but this chart –

MR. DODSON: That's an opinion, not a fact.

MS. O'BRIEN: I understand but this chart does tell the client what other – what are the other significant risks.

MR. DODSON: No, these are the risks that were assessed. These are the four risks that were assessed and this is the average value of the 2,000 times that it was tested against the distribution. So the average value (inaudible) risk was $184 million.

MS. O'BRIEN: I'm having trouble hearing; it may just be me. The average value – can you say that again, please?

MR. DODSON: Well, there were four risks that were tested in the strategic risk assessment.

MS. O'BRIEN: Yes.

MR. DODSON: One of the – actually, I quoted the schedule, I meant to – but schedule risk, time extension was worth $184 million.

MS. O'BRIEN: Okay. You're really drifting out.

So these were the four strategic risks that were assessed?

MR. DODSON: Yes.

MS. O'BRIEN: And what does that $497 million communicate?

MR. DODSON: The average value of the assessment.

MS. O'BRIEN: Okay.

MR. DODSON: The average value, taking the total and divided by the 10,000 times it was tested.

MS. O'BRIEN: Okay.

MR. DODSON: It's not a probability.

MS. O'BRIEN: Okay. All right.

I – one other question, you were talking with Mr. Simmons about whether strategic risk is used in budgets. And I understand you to say, where there are owners who have more significant experience with large projects, they are more likely to include strategic risk in their budgets. Mr. Simmons asked you: Are there people who do not consider strategic risks in their budget? And you said: Yes, it's very common with developers.

MR. DODSON: (Inaudible.)

MS. O'BRIEN: When you're talking about developers, can you just explain to me: What do you mean by that term in that context?

MR. DODSON: Well, it's an individual – a group of individuals that basically have no (inaudible) structure that assemble a project.

MS. O'BRIEN: Okay. Thank you.

MR. DODSON: Like the LNG project in Kitimat, that's (inaudible) – develop.

MS. O'BRIEN: I'm sorry. I'm unable to hear Mr. Dodson's answers, at all, at this point.

THE COMMISSIONER: Can we – just ask Jason to come back in and see if we can reconnect to Mr. Dodson again. Because, again, the line is so bad now I can't even understand most of what you're saying, Mr. Dodson, and I'm – I appreciate your patience with us here now, but it's technology and we're going to see if we can get you back online here, again, with hopefully a better understanding of what's going on.

UNIDENTIFIED MALE SPEAKER: I'll call you right back.

MR. DODSON: Okay.

Okay. Initially, the sound has been perfect on my end.

UNIDENTIFIED MALE SPEAKER: You need to activate your screen – your camera.

MR. DODSON: I did.

Not coming up. Can you see me?

UNIDENTIFIED MALE SPEAKER: No.

MR. DODSON: What's going on?

MS. O'BRIEN: (Inaudible.)

MR. DODSON: We must have a bandwidth limitation. It's just clicking. I see you fine.

UNIDENTIFIED MALE SPEAKER: Down on the bottom you've got a camera icon. You need to click that.

MR. DODSON: Yeah, no, I'm doing the same thing. It's just clicking on and clicking off.

THE COMMISSIONER: Well, the sound sounds better. We may not see you, so –

MR. DODSON: I can –

THE COMMISSIONER: – I think –

MR. DODSON: I can see you perfectly.

THE COMMISSIONER: Okay, well –

MR. DODSON: You don't have to see me.

THE COMMISSIONER: I'm not sure if that's an advantage or not, but I think what we'll do is we'll continue on without seeing you and – because the audio does seem much better and that's more important at this stage.

MR. DODSON: Okay.

MS. O'BRIEN: All right.

Thank you, Mr. Dodson.

And I really only have a few more questions. I'm just gonna get you to – ask you to first repeat your answer to the last question, which was: When you referred to developers in that context, what – can you give us a little more information about what you were referring to? How you were using it?

MR. DODSON: Simply organizations doing large capital projects for the first time.

MS. O'BRIEN: Organizations doing capital projects for the first time?

MR. DODSON: Right.

MS. O'BRIEN: Okay.

MR. DODSON: (Inaudible) very, very common.

MS. O'BRIEN: Okay, thank you.

The next question I had for some clarification, in response to some questions by Mr. Coffey, for Robert Thompson, I – one, you had talked about there was going to be another evaluation at the public bid stage, and I think –

MR. DODSON: Yes.

MS. O'BRIEN: – you were talking about another – further evaluation of risk, can you just explain – give me a little more detail – what you were referring to there?

MR. DODSON: Well, it's sort of the ultimate risk assessment. Someone bids this, and in this case there was – to me, the design was to be complete and there was a request for what we call a (inaudible) complete – a guarantee up to the level of the contract. So the price that is submitted by a bidder under those circumstances should be very indicative of the final cost.

MS. O'BRIEN: Okay.

And if you get a situation where bids are coming in on average higher than the estimate amount, you know, what would you expect the owner to do at that time in terms of their assessment of the risk?

MR. DODSON: Cancel the project and reassess.

MS. O'BRIEN: Pardon?

MR. DODSON: Typically, they cancel the project and reassess.

MS. O'BRIEN: Okay.

I think we just lost Mr. Dodson. There we go.

THE COMMISSIONER: Yes, go right ahead, Mr. – Jason.

MR. DODSON: All right, one more try.

MS. O'BRIEN: Thank you.

The answer I heard from you, and please correct me if I'm wrong, was that typically they would cancel the project and reassess, is that – did I hear –?

MR. DODSON: Yes, yes.

MS. O'BRIEN: Okay.

So you can do another QRA-type analysis at that stage to re-evaluate your risk, at the very least?

MR. DODSON: Well, when they get bids that are higher than the sanctioned price, well then they typically cancel the bid, sometimes they pay the bidders, you know, something for their effort, and they reassess the project.

MS. O'BRIEN: Okay, thank you.

Finally, the one – I just wanted to get some clarity and I – it may have been I was having trouble hearing the answer. And this is with some question posed by Mr. Hogan, for the Consumer Advocate, in terms of the desire of the project team, generally, to keep costs down. And I thought I heard you say they're keeping costs down because they are – to keep power costs down. But previously you talked about keeping cost down because it would be more likely to get the project sanctioned and get the go-ahead for the project.

Have I heard you right in both cases? And can you, perhaps, give us a little more clarity on that?

MR. DODSON: You are correct. And there's a lot of confusion around the conflict in those topics. I mean, they – and I think in this case, the team believed that the project was doable for the estimate. That's typical of projects, like I say, you have to have optimism. The reality is, at the same time, they know that the lower the price the more likely the project is to go ahead. So there's always a conflict between what they have to do the budget for and what, you know, will work in the economics.

MS. O'BRIEN: Those are my questions for you, Mr. Dodson.

I don't know if the Commissioner has anything for you.

THE COMMISSIONER: No, that's fine.

Thank you, Mr. Dodson. I appreciate your patience this morning.

MR. DODSON: All right, a pleasure.

THE COMMISSIONER: Thank you very much.

Okay, so we'll let you go.

Thank you.

MR. DODSON: Okay.

MS. O'BRIEN: Thank you.

Commissioner, our next witness will be Dr. Guy Holburn, who will be presenting an expert report that he did for the Commission. We expected to call him after lunch, and given that there is a bit of a set down and a different set up for Dr. Holburn, I recommend that we take an earlier lunch break and reconvene this afternoon. If we did reconvene at 2 o'clock, at our usual time, I do think we would have enough time to finish today.

THE COMMISSIONER: All right.

All right, so we'll adjourn here now. It's about 12:10, so we'll adjourn until 2 o'clock and begin this afternoon with Dr. Holburn.

CLERK: All rise.

Recess

CLERK: Please be seated.

THE COMMISSIONER: All right. Ms. O'Brien?

MS. O'BRIEN: Good afternoon, Commissioner.

As a first order of business, I need to correct an exhibit entry that I requested this morning. I had requested that exhibits P-01889 to P-01991 be entered as exhibits; that was incorrect. I should have requested that P-01889 to P-01891 be entered as exhibits, so I'd ask to have that corrected, please, on the record.

THE COMMISSIONER: All right, I just corrected that now in my own notes. And they will be marked as numbered.

MS. O'BRIEN: Thank you.

Our witness this afternoon is Dr. Guy Holburn. You heard from Dr. Holburn previously during Phase 1. His CV has already been entered into evidence as Exhibit P-00527.

Dr. Holburn, can I just get you to confirm whether or not there have been any significant changes to your CV since you last testified before the Commissioner on October 23, 2018?

DR. HOLBURN: No, there have been no significant changes.

MS. O'BRIEN: Thank you.

There you go, your mic's now activated.

Okay, so no significant changes.

Commissioner, Dr. Holburn was at that time qualified as an expert in the area of regulation and governance of the energy sector.

Dr. Holburn, the paper we intend to have you present today is on governance of Crown corporations. It applies a little more generally than just to the energy sector. Is the topic of the paper that you've brought today, do you consider that to be within your area of academic expertise?

DR. HOLBURN: Yes, I do.

MS. O'BRIEN: Okay.

On that basis, Commissioner, I think I'd seek to just expand Dr. Holburn's area of qualification to include governance of Crown corporations. I don't – wasn't intending to question Dr. Holburn any further on his credentials, but obviously some of my friends may wish to do that.

THE COMMISSIONER: Any questions – sorry – any questions related to Dr. Holburn's area of expertise?

None.

Maybe what we could do is just, for the public, get a general idea of what knowledge he has in this particular area.

MS. O'BRIEN: Thank you.

Dr. Holburn, could you please provide that?

DR. HOLBURN: Yes, of course, I've written a number of studies that look at regulation of government-owned enterprises.

THE COMMISSIONER: Reminder we have to get this witness sworn or affirmed, as well.

MS. O'BRIEN: Oh, yes.

THE COMMISSIONER: So we should do that before we start.

MS. O'BRIEN: Okay, sorry.

THE COMMISSIONER: So –

MS. O'BRIEN: Thank you.

THE COMMISSIONER: – do you wish to be sworn or affirmed, Dr. Holburn?

MS. O'BRIEN: Sworn.

DR. HOLBURN: I can be sworn in.

THE COMMISSIONER: Okay, if you could stand, 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?

DR. HOLBURN: Yes, I do.

CLERK: Please state your name.

DR. HOLBURN: Guy Lawrence Fortescue Holburn.

CLERK: Thank you.

THE COMMISSIONER: Okay, thank you.

And Ms. O'Brien?

MS. O'BRIEN: Thank you, Dr. Holburn. Please, could you give the Commissioner a little review of your qualifications?

DR. HOLBURN: Mm-hmm. I've written a number of research papers on governance of government-owned enterprises, most recently in 2018 and also one in 2011. I'm also a director of a government-owned enterprise, not a Crown corporation, but still, it's own by the government. That is London Hydro. And as a academic, I've also organized a number of conferences and panel events that have looked at governance of government-owned enterprises.

THE COMMISSIONER: All right.

In the circumstance, seeing there's no questions from other counsel, and based upon my recollection of his evidence on the last date, I'm satisfied to recognize Dr. Holburn as an expert on governance of Crown corporations. That will be added to his – to the expertise that I recognized him for on the last occasion.

MS. O'BRIEN: Thank you.

THE COMMISSIONER: Yeah.

MS. O'BRIEN: Commissioner, based on that I'd seek now to have two further exhibits entered: P-01770 is Dr. Holburn's paper, entitled "Best Practice Principles of Corporate Governance for Crown Corporations," and P-02020 is a PowerPoint presentation that Dr. Holburn has prepared to present his report.

THE COMMISSIONER: Those will be marked as numbered.

MS. O'BRIEN: Thank you.

Dr. Holburn, what I intend to do is I'm going to ask Madam Clerk to please bring up P-02020. So this is the PowerPoint presentation. And I'm going to sit down now and let you go through your presentation, at the conclusion of which I will likely have a few additional questions for you. Thank you.

DR. HOLBURN: All right.

Thank you for this opportunity to come and talk about my report on governance of Crown corporations. So just to be clear on the scope of this: "This report has been commissioned by the Commission of Inquiry ... to provide an overview of best practice principles for corporate governance for Crown corporations."

This is quite a well-studied area. There have been lots of reports and studies by academics, by government agencies, by public-policy think tanks over the last 20 years. So what I'm doing in this report is I'm trying to synthesize and summarize some of the key findings that come out from this fairly large body of literature that looks at governance principles.

There's a reasonable degree of consistency in recommendations and findings that's come from these studies. So I'm going to summarize them in this report.

So just to let you know, what I am intend to talk about at this presentation, I thought it'd be helpful just to very briefly give you some backgrounds on what Crown corporations are and how they differ from some other types of government organizations, and then I'll spend a little bit of time talking about the role of corporate governance and what problem is corporate governance, essentially, trying to solve here. And then that will lead through to a discussion of the best practice principles that emerge from this literature on corporate governance and that's broken down into six broad sections and then I'll briefly conclude.

Okay, so in terms of background of Crown corporations, these are government-owned enterprises which have mixed commercial and policy objectives. Their structures and designs operate more at an arm's length from government's control – more arm's length than, say, a government department. And this is deliberately designed to allow Crown corporations to have more operational and strategic autonomy within their decision-making.

Crown corporations are a reasonably important component of the Canadian economy. There are 47 federal Crown corporations and approximately 180 provincial Crown corporations. And, collectively, they account for roughly 3.5 percentage of GDP and account for about $220 billion worth of net assets.

So it's not a tiny but it's not an insignificant share of the Canadian economy. And we see provincial Crown corporations operating in quite a broad range of sectors, from mail delivery to the arts to transport to liquor retail and, of course, to energy and utilities.

And there are Crown corporations operating at both the federal level and also the provincial level. We've seen some changes over time and so the mix of Crown corporations, sometimes they're created by governments and sometimes they're also dissolved or they're privatized. We've seen a little bit of a trend towards privatization of some Crown corporations over the last 20 years; for example, Petro-Canada, Air Canada and PotashCorp. So, as we can see, you know, there's an important commercial aspect here to Crown corporations.

So now I'd like to turn to the section on the role and the purpose of corporate governance. So, in general, the purpose of corporate governance is to help solve ownership and control issues that can emerge in any type of corporation, be it private or a Crown corporation. In any corporation there is – where management are taking actions on behalf of shareholders – so there's a separation between managerial and shareholder control – there's a risk that management may take actions that are not necessarily in the interests of the shareholders. And this is particularly a concern when monitoring by the shareholder of management actions may be imperfect. And this is referred to in the literature as principal agent problems or principal agent costs.

Now, there are several types of ways in which managerial actions may diverge from shareholder interests, the first of which revolves around managerial effort. Are managers exerting the necessary level of effort that is expected by the shareholder? And there's a risk of managerial shirking and also there's a risk that managers, when they are imperfectly monitored, may engage in excessive consumption of perks. Think about corporate jets, excessive expense accounts and so forth.

The second area where there may be some divergence between managerial and shareholder interests is in usage of corporate earnings. Managers may prefer to use financial earnings to reinvest in the business, to grow the business, to invest in new opportunities, to diversify in a bid to grow the corporation under the expectation that a larger corporation is going to bring greater compensation, greater benefits to the managers themselves, greater prestige and so forth. On the other hand, shareholders may prefer that financial earnings are returned to the shareholder in the form of dividends, so we've got a potential conflict of interest here.

Now, the third area where there might be a potential conflict is in the time horizons that managers adopt looking at – with respect to short-term and long-term horizons. Managers may wish to safeguard their compensation and employment status, more so in the short term than over the long term. So the classic example here is around investments in research and development projects. Now, these types of expenditures can decrease earnings in the short term, but deliver long-term benefits as a corporation becomes more productive. In the short term, if management are concerned about a reduction in short-term earnings, this may have negative consequences for their compensation, their employment status. So they may prioritize not making that additional R & D investment to safeguard short-term earnings, whereas in fact the shareholder may actually prefer to see that longer run performance if the shareholder has got a longer term time horizon.

And then fourthly, there may be a difference in risk tolerance thresholds between management and the shareholders and for a similar reason as the time horizon conflicts. Managers whose compensation and job depends on the immediate performance of the corporation may not be as willing to take the same level of risk, in terms of making investments, than shareholders. Shareholders are more – generally have an ability to diversify risks by making investments in a portfolio of organizations. So they may prefer a company or management to take on higher risks as part of that overall portfolio.

But we can see the potential conflicts here with management who may be more driven by their individual interests around compensation and employment security. So these are the examples of types of reasons why you might see a divergence in interests between managers and shareholders. So this is the problem essentially that corporate governance can help try and resolve.

So for private corporations, there are a number of internal and external governance mechanisms that can help ameliorate some of these principal agent problems and narrow the gap, essentially, between managers' and shareholders' interests. So very simply, competitive market pressures and the risk of bankruptcy in a competitive marketplace can help discipline management. Firms that are performing poorly have the risk of going bankrupt and, then, leading to the loss of managerial jobs.

Secondly, there is a market for corporate control in the private sector. So, for example, for large corporations that have stock listings, there is always the risk of a hostile takeover if management and the corporation are performing poorly. Again, this can act as a discipline on management if there's a risk that a new team can come in and replace a poorly performing management team with a new one.

Again, for larger corporations that have stock listings, shareholders may try and incentivize management by giving them stock price options and long-term incentive plans where management have a high-paid incentive to try and increase the stock price and to maximize shareholder value.

Fourthly, large corporations that have institutional equity investors will also be subject to monitoring by equity analysts who provide that professional capacity in terms of monitoring corporate actions and the effectiveness of a management team. And occasionally equity investors, if they have a sufficiently large stake, will be able to exert some influence through representation on the board. Sometimes corporations may provide management with shares to strengthen and align their incentives. There's a slight risk here if management have too large a shareholding. This could lead to entrenchment, this may dampen managerial risk taking if too much of their wealth and income is tied up within the corporation.

Sixthly, debt financing is another mechanism by which corporations can try and create some credible commitment to management to not shirk on managerial efforts. Debt brings with it harder debt repayment obligations and also – it also brings a degree of external debt market monitoring of corporate actions.

And then, finally, of course, we have boards of directors. Boards are chosen by shareholders and this reflects a professional monitoring capacity whereby directors are chosen on their ability to oversee and to monitor the corporation and they are rewarded, they are compensated for their efforts in undertaking that type of professional activity. And, of course, directors' appointment depends on their effectiveness in monitoring management on behalf of the shareholders.

So, we can see here – there are a number of mechanisms that the private sector of corporations can rely on in order to resolve some of these principal agent problems that can arise when there's a separation of ownership from control in private corporations.

The challenges of aligning incentives are a little harder in Crown corporations. Monitoring and control issues are more difficult for a number of reasons. First of all, it's harder to assess and to measure performance because often, Crown corporations have multiple objectives, both on the commercial side and the policy side. They may be in conflict with each other and they may also change over time.

So there's no single equivalent of a financial – of a single metric financial profitability that shareholders can use to judge whether a corporation is doing well or poorly when there are also policy objectives included in these objectives.

Citizens, who are the ultimate shareholders, are separated from Crown corporations by a layer of government. This can make active monitoring more difficult.

There's no equivalent of an annual general meeting or shareholder proxy resolutions to express preferences directly to Crown corporation management.

And also, the risk of bankruptcy is absent for Crown corporations due to the government acting as the ultimate guarantor.

In addition, there is a more limited set of mechanisms to align managerial incentives with shareholder interests. Clearly, there's no market for citizens to buy and sell their ownership rights. There's no market for stock of Crown corporations.

So hence, there is no possibility of a hostile takeover, there's no market for corporate control. So some of these mechanisms that are important in the private sector for private corporations are absent for Crown corporations.

High-powered, incentive-based compensation mechanisms for senior executives can also be more challenging in a Crown corporation context. There is no opportunity to tie compensation to changes in stock prices. And also, gearing up compensation to big changes in performance can be politically infeasible. Politicians are often unwilling to commit high levels or rapidly increasing levels of compensation to reflect improved performance over time. So there are some political constraints here on incentivizing senior executives through performance-based contracts.

And also, without institutional equity investors, there's no large-scale external monitoring as we see for corporations in the private sector. So, if we were to go back and look at that seven set of mechanisms that I presented for the private sector, we'll see that many of these aren't feasible, they can't be applied to try and line up interests and incentives for Crown corporations.

But one of the exceptions that remains is through the board of directors. So the board of directors plays a particularly important role in the governance of Crown corporations relative to that for private sector corporations.

So, this shows a very simplified structure of corporate governance arrangements for Crown corporations, and this is the structure that boards of directors exist in. So broadly, the responsibility of the board and the directors is to act in the interest of the corporation and to exercise due care and attention. And they're accountable to government – they're appointed by government.

And the role of the board is broadly fourfold. Firstly, to establish the corporation's strategic direction and plan; to safeguard the corporation's resources in all different forms; to monitor corporate performance, and, of course, to report to government.

The government to which the board is responsible and accountable consists of – and I've provided a simplified schematic here – consists of the minister, the Cabinet, the legislature – we add in additional items, such as a treasury board. The board responsibility of the government collectively is to establish the corporation's performance objectives, priorities and targets, which may change from year-to-year; to approve the corporate plans and budgets; to appoint the board directors and also the chair; and sometimes, to appoint the CEO.

There's some differentiation here between jurisdictions. In some jurisdictions, the CEO appointment authority is delegated to the board; in others, the minister or the Cabinet retains that authority.

And then, reporting to the board is the CEO. The CEO is accountable to the board for the corporation's performance and whether the corporation is meeting its objectives. And, the CEO has broad responsibility to manage the corporation in the way that it will meet performance targets and to provide leadership to the employees and other senior management within the organization.

So that's the broad structure within which the board of the directors and the chair exists.

Okay. With that, I'm going to now move on to the six broad areas of best practice principles of corporate governments.

So beginning with the corporate purpose and mandate – clarity of the Crown corporation's objectives is particularly important since they are often multi-dimensional. They can conflict with one another and they can also change with changing governments policy priorities as well.

So, the broad purpose of a Crown corporation should be clearly stated in enabling legislation, which also typically defines the governments – governance arrangements, responsibilities and authorities of the corporation. This typically is quite a broad and vague statement of the corporation's objectives.

So then, additionally, what we see in practice is that government more precisely specifies the performance objectives, priorities and targets through mandate letters or shareholders of letters – or shareholders letters of expectations, which would be issued by the responsible minister to the Crown corporation. These letters would include, for example, reporting requirements as well, communications, protocols and other governance aspects.

So to provide an illustration here, this is the – this is an example of a mandate letter for BC Hydro from 2016, and the top two lines here: provide reliable, affordable, clean electricity throughout British Columbia safely, that's the broad mandate that the government provides to the organization. And then below that we can see a number of higher level performance objectives that the government is asking or directing the organization to pursue in its activities. And we can see here that there is a mix of commercial and policy objectives. So on the commercial side the requirement is to keep electricity rates low and predicable by optimizing resources to work with a capital plan portfolio on time and on budget.

There are also the policy objectives for – so, for example, around supporting British Columbia's economic growth to ensure that First Nations and local communities have the ability to participate in economic development opportunities, to further opportunities for clean energy producers, and also to explore innovative energy conservation solutions. So we can see here, this is a very vivid illustration of the mix of different commercial and policy objectives that would be typical for a Crown corporation, particularly within the energy sector.

And then the next part of the mandate letter – and these are issued annually by the minister responsible to the chair of the board. The next part talks about the nature of the relationship between the board and the government. So here, this stresses the importance of two-way communications that will support and ensure a common understanding of the government's expectations for the corporation.

The minister asks each board member to acknowledge the direction provided in the mandate letter by signing it. And then, at the end, the minister reinforces this need for two-way communication at the bottom of this page here by stating: I look forward to our regular meetings focusing on strategic priorities, performance against taxpayer accountability principles, key results and working together to protect the public interests at all times. So an emphasis here on the process by which the government wishes the organization to remain aligned with its policy priorities.

So that's an example of a mandate letter. It's best practice for mandate and letters of expectations to be regularly reviewed and updated.

In Ontario, for instance, these types of memorandums of understanding or mandates are reviewed at least every five years, or else when there's a new minister who's responsible for a Crown corporation. In British Columbia, their shareholders letters of expectations are developed on an annual basis. And so this is an important mechanism for insuring an alignment between the corporation and government policy.

In a number of provinces we've seen governments develop central government agencies that provide advice to different ministries on how to manager and structure their relationships with Crown corporations. So, for example, in British Columbia and in Manitoba, we've got these centralized government institutions that can provide advice on governance arrangements; for instance, on procedures for making appointments to Crown corporation boards and also providing training as well for directors. And there are some benefits from having this centralized expert resource within government, particularly for ministers that may be overseeing only one or two Crown corporations.

And then given the corporation's purpose and policy directions, corporation boards should ensure that the strategic plans and the allocation of resources is consistent with the mandate and the expectations that government has set.

Okay. Let's move on to board selection and appointment processes. So with the central role of the board, the key goal is to select and appoint a board that can effectively oversee management and act as an independent check and balance in the decision-making process. So the board should be able to operate in a constructively critical way, rather than simply as a rubber stamp for management proposals.

So how can this type of effective board be constituted? First of all, the appointment processes should be open to the public to encourage as many qualified applicants as possible. The process should be transparent to increase levels of public confidence and trust, and also to create an accountability mechanism. And also they should be merit based, and by that I mean having an objective assessment of a fit between a corporation's needs for director skills and those that have been presented by potential applicants.

Crown corporation boards should prepare a skills matrix that outlines the necessary capabilities and skills that are needed on the board as a whole, and also of particular directors when vacancies become available. So the typical types of skills that a board would look to include amongst its directors would be financial, legal, industry knowledge, individuals with senior leadership and management experience, individuals with public relations or stakeholder management expertise and so forth.

And these should be, and the needs of a corporation based on this type of skills matrix and which will identify gaps, this should be discussed with the ministry as the minister or the ministry goes through the process of soliciting applications and making decisions about appointments. This will increase the probability that the most valuable candidates are selected and appointed to the board.

Director remuneration can be a challenging topic for governments. Compensation should be structured to attract sufficiently-qualified applicants and, obviously, to reflect the time commitments that are needed of directors to discharge their duties. At the same time, there's often a recognition that directors of Crown corporations are providing a public service and is often recognized that levels of compensation would not reach the same levels of compensation within the private sector.

Governments often struggle with this, and we've seen a wide range of approaches in terms of how governments try and strike this balance between the political sensitivities around public sector pay and the need to have qualified individuals who are going to devote the necessary time and attention to their roles on the boards.

The size of corporation boards is important in terms of providing that overall capacity to monitor and to oversee management. And as a Goldilocks position here, you don't want the boards too small, because then individuals directors will be overly burdened. And you don't want them too large, because that will then lead to more cumbersome decision-making, and also the risk of free-riding within the board. This should typically suggest that having a board of directors that consist of eight to 12 individuals is often an appropriate size.

Once board members are appointed, they should be provided with orientation and training programs, both at the time of appointments and also, on an ongoing basis. And the goal here's to make sure that directors are familiar with operations of the corporations, the industry and also any changes in corporate governance best practices.

The scheduling of appointments is also important. And the goal here is to make sure that there is continuity of expertise within the board, as a whole, as directors are appointed and as others leave. There's also a need to bring some fresh thinking – overtime, to bring in new perspectives. So, that's the counterbalancing force.

So typically, appointments should be for fixed terms – agreed fixed terms. They should be staggered and there should be limits on renewal, so then boards aren't faced with a sudden or marked a drop-off in expertise as a number of board members leave at any one time.

And, of course, board vacancies should be filled on a timely basis, because gaps can create challenges in terms of that expertise is embodied within the board. Boards are generally quite small in number, so if there's vacancy, this can create a challenge; particularly if there's a sudden skill set that's missing. And it's particularly problematic for the committees – for the subcommittees of boards, which often may have just a handful of individuals. So, if there's a gap on a committee, then that can be particularly challenging in terms of providing that expert oversight on a particular set of issues.

So, that summarizes some of the, sort of, best practice principles for board functioning and independence.

So moving on to committee structures and responsibilities.

So it's common practice that –

MS. O'BRIEN: (Inaudible.)

DR. HOLBURN: Oh, I'm sorry. Yes, I thought I might have done something there. Yes, thank you. Okay. All right, yes.

Functioning and independence – so it's generally regarded as best practice for a majority of the directors of a Crown corporation to be independent of the management and of the corporation. And the reason here is to ensure that directors can act in the interests of the corporation and to exercise independent judgment. The board should also not involve itself in day-to-day management of the corporation. And the primary role of a board is to provide that forum for sober second thought, and day-to-day operations are delegated to the CEO and to the senior management team. So it's a very clear distinction in terms of the role and function of the board and the CEO.

It's also regarded as being a best practice to have separation between the role of the chair of the board and the CEO. Again, this is to avoid conflict of interest, because one of the central responsibilities of the board is to evaluate the performance of the CEO and in some cases, to make decisions around appointment. And also, compensation often falls within the remit of the board as a whole. It is becoming increasingly rare to see these two roles combined within the Crown corporations.

There should also be limits around the appointment of public servants to Crown corporations. It's less usual now, I think, to see elected officials or senior bureaucrats being appointed to Crown corporation boards. And the reason for this is that they may be seen as being representative of the government and acting in the interest of the government, rather than necessarily acting in the interests of the corporation – again, raising concerns about the independence of directors whose primary duty is to look after the interests of the corporation.

The chair has a particularly important role in the functioning of Crown corporation boards. The chair is responsible for setting the agenda, for facilitating board discussion and debates. The chair is the external spokesperson for the board and also the link between the board and the government. So it – the chair really plays a critical role in the overall governance architecture of the functioning of the board. So selecting the appropriate chair is an important responsibility of the minister.

The work of the boards – the work of the board is conducted primarily through regular meetings where directors will deliberate, they'll discuss, they'll make decisions, they'll advise management, they'll listen to management recommendations. So the frequency and duration of board meetings is also an important aspect of having an effective board. This is where governance actually plays out primarily. Generally, boards will meet anywhere from, sort of, four to eight times a year. Some corporations prefer to have more frequent meetings but shorter; other boards will have less frequent meetings but they'll meet for the whole day. Generally, it's in the range of four to eight meetings a year for meetings of the whole board. In addition, there will be committee meetings on top of that and it would be fairly typical for committees to meet on a quarterly basis.

And then finally, there should be some attempt for boards to evaluate their performance – how effectively do boards perform. Now, there's no single objective method or measure that will allow an assessment of effectiveness or the impact of boards on corporate performance. So typically, what will happens is the boards will undertake a self-evaluation or peer evaluation of the workings of the board. This is best practice for boards to have this sort of introspective evaluation process once a year.

For Crown corporations, as well – they typically fall under the mandate of provincial Attorneys

General and the provincial Attorney General will often make a review, a detailed review of particular Crown corporations on a periodic basis. So this is another way for an independent assessment to be made of whether a board is actually functioning well or not.

THE COMMISSIONER: Did you say Attorney General or Auditor General?

DR. HOLBURN: Oh, sorry – Auditor General. Thank you for the correction there. Yes, I do mean Auditors General, yeah, at the – clearly, at the provincial level for provincial Crown corporations. Thank you.

Okay. So let's move on to committee structures and responsibility.

So it's common practice for boards to create specialized committees that have specific oversight roles and responsibilities. And the purpose of committees is to benefit from specialization and focus and also to share the workload amongst board directors.

So the typical committees that we would see for Crown corporations – or corporations in general – would be an audit committee, a corporate governance and ethics committee, and then usually there's human resources or a compensation-type of committee that has responsibility for performing evaluations of the CEO and making succession plans.

In some organizations, particularly those that are involved, say, for example, in construction, there might be a health and safety committee as well. And occasionally, we'll also see corporations set up ad hoc, special-projects-types of committees for one-off types of projects or activities that a corporation is undertaking.

So, I want to show an example of this – of a special committee. So this relates to the Darlington Refurbishment Project, which is – this refers to the Darlington nuclear power generation station, which is owned by Ontario Power Generation. This is a large megaproject, costing around $13 billion and was commenced, or the activity – this began to be executed in 2015.

And Ontario Power Generation constituted a Darlington – this is the red box on the slide here – the board of directors decided that they should constitute a Darlington refurbishment committee of the board of directors. And this has specific oversight responsibility for the performance of this project.

It's constituted by six members of OPG's board of directors – that's six out of 14 – and it meets quarterly to assess how is this project developing? Is it on schedule and budget? And it makes recommendations to the overall board of OPG as to whether the project should continue once it reaches certain milestones. Importantly, it also has the authority to retain external expertise and oversight. It's retained two US engineering-consulting firms which report directly to this committee, so to the board. So, it's independent of management.

So, this is an example of a committee that's been set up for a very specific purpose and will be dissolved once the project is completed.

So, going back to the previous slide: Board committees should have clear terms of reference, so there is clarity in the performance expectations and the responsibilities of the board. The committee charters – I provided an example in the appendix – define the purpose and the scope of authority, membership and governance arrangements for the committee so there's no dispute with the overall board. And typically they are advisory, so they'll make the recommendations for the board to make a decision on as a whole.

Committee members are typically chosen based on experience and interest. And, fourthly, for audit committees there's generally a requirement that the chair of the audit committee should be a chartered accountant and that members of the audit committee have financial expertise and experience.

And this is – and there's particular emphasis on the audit committee, given this is really one of the central mechanisms and central responsibilities of boards – to safeguard the corporation's financial resources.

In addition to that, it's best practice for boards to ensure that an overall enterprise risk management process is in place. The goal here is to ensure that the management and board are systematically and regularly evaluating the major risks that may confront the organization and to evaluate their potential impact and also develop strategies for mitigating or managing the impact of these types of risks. This is especially important for corporations that are undertaking new or unusual activities, because without that benefit of experience it becomes harder to assess risk.

So, having a systematic process for evaluating risk is particularly crucial when the corporation is in a situation of not quite knowing how to evaluate risk of a particular type of project or activity.

And then, finally, as with the board as a whole, committees should undertake evaluations of their performance to understand whether they're acting effectively or else where there need to be some changes made to their composition and practices.

Okay, so moving on to board's relationship with the corporation's executive. So, the basic principle here is that the board's primary relationship with the organization is with the CEO who is accountable to the board. The board's role is to constructively challenge the CEO and the management team, and not to interfere in day-to-day operations.

So, in order to ensure there's a strong accountability relationship between the board and the CEO, the board should be involved – quite heavily involved in the selection and appointment of the CEO, and also potentially in making recommendations on compensation. And we do see some variation here across provinces.

In British Columbia, the board has the authority to appoint and to dismiss the CEO and also to set compensation with the approval of the government. Compensation needs to be consistent with government guidelines. In Ontario, by contrast, and in some other provinces, the minister has the responsibility and authority to appoint and to dismiss the CEO and to set compensation.

Secondly, the board should develop clear performance expectations for the CEO, which are going to be used in the evaluation process each year. Dimensions of performance may include factors such as the financial health of the organization, operational performance, special initiatives, success and completion, stakeholder relations and so forth. The board is responsible for evaluating the CEO, which is a central part of establishing that accountability relationship.

In addition to that, another element of the board's relationship with the executive is through development of the corporation's strategic plan. The board should play an active role in developing and approving the strategic plan along with senior management and understand, you know, how the strategy is going to achieve the corporation's objectives as determined by government. This will also form the basis for the annual report and annual plan that is submitted by the corporation to the government for approval each year.

And then fourthly, it's considered best practice in developing this relationship between the board and the CEO and senior executive for the board to have regular in-camera sessions at the end of board meetings without the presence of the CEO or senior management. So, then the directors have an opportunity to have a candid and frank discussion about the performance of the CEO and the senior management team.

There's an important part of the board collectively developing an assessment of the CEO's performance, and then this should be fed back by the chair to the CEO in terms of giving some feedback on how things are going.

So, finally, on monitoring and reporting, it's considered best practice that the board shows reports on Crown performance each year. Typically, Crown corporations have a legislated mandate to report to government through annual reports and also to prepare forward-looking annual plans. These need to be approved by the board and then are submitted typically to the minister responsible, who then would table it with the legislature. And this is, obviously, central for enabling government to evaluate the performance of the Crown corporation overall and to hold the board to account for the corporation's performance.

It's also considered best practice for the board to communicate regularly with government, as we saw illustrated in the BC mandate letter. And this is due to the fact that policy objectives can change or they need to be specified sometimes more precisely by government through meetings. And as events unfold and actions occur by the corporation, there may be need to be some discussions with government to ensure that the activities of the Crown corporation are indeed aligned with government policy.

So in British Columbia the recommendation is that the chair of the board and the minister meet at least four times a year and that the CEO meet with the deputy minister on a regular basis. In addition, in Manitoba the recommendation is that the minister meets with the entire board once a year. And in Ontario, the recommendation also is that the CEO meets with the deputy minister on a regular basis and then less frequent meetings between the board chair and the minister. So, regular communication is regarded as being an important part of the overall governance process.

The board should ensure that it receives sufficient information on the corporation's performance, again – so this is an important part of allowing the board to evaluate the performance of the management and the corporation on a regular and timely basis. Now, typically, the board is reliant on management to provide that information and this is normal given that management have control over the information and they also have the expertise. However, if the board is not satisfied that the information may be complete, the board also has the authority to retain external advice and external experts to provide an independent opinion or to provide information on a specialized type of topic.

So, of course, boards retain auditors to look at the, sort of, financial status and the health of the organization, but it's also quite possible for boards to retain external experts in law consulting and so forth, if they feel there's a need to shore up or to provide that external perspective on particular issues. As part of that, I emphasize here the best practice around receiving the appropriate financial and accounting information as well, given the central responsibility of the board to ensure the financial resources of the corporation. Generally, this is the responsibility of the audit committee to ensure that it's getting the right internal and external information on the corporation's financial status. And the external auditors play a central role here in providing that snapshot on the financial health of the corporation.

So, in conclusion, I just want to highlight a couple of key points here. Developing the clarity of the Crown corporation's commercial and policy objectives is essential for setting expectations, so for creating that accountability of the board and the organization overall. And clarity is developed both through the legislation, the legislated mandate, through directives and through ongoing communications to ensure that there's this alignment between the actions and activities of the Crown corporation and government policy.

As I mentioned at the beginning, governance of Crown corporations can create some particular challenges relative to the private sector, given that many of the mechanisms that are available to private sector corporations are not available to Crown corporations. So that's – this then leads boards of directors as being a particularly important element of overall governance architecture to ensure effective oversight of Crown corporations. And this also helps explain why we've seen considerable attention in a large number of studies and reports to try and understand what are the best practice principles and the best practice actions in designing effective governance arrangements, particularly around boards of directors.

And with that, I will conclude.

THE COMMISSIONER: Ms. O'Brien?

MS. O'BRIEN: Thank you, Dr. Holburn.

I do have a few questions for you to go over certain of the slides, not that many.

I'd start – if we could go to slide 11, please.

So on this – when you were talking about this slide you talked about, particularly in point 3, that a Crown corporation mandate should be regularly reviewed and updated. And when you were giving your presentation I think you spoke a bit about in Ontario and British Columbia, you gave examples of –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – I'm not sure if I'm going to get this right, but in Ontario you say mandatory every five years –

DR. HOLBURN: Yes.

MS. O'BRIEN: – at least, and in British Columbia you gave example of a requirement of an annual updating.

DR. HOLBURN: Yes.

MS. O'BRIEN: I just wanted to get a sense of, is there a recommended practice in terms of a maximum period of time before revisiting a mandate.

DR. HOLBURN: Mmm.

MS. O'BRIEN: Like, would five years be at the maximum or are some doing it even longer than that?

DR. HOLBURN: I think it's a matter of trying to create a balance between, sort of, short-term, sort of, interventions that can maybe unnecessarily, sort of, change directions and then having, sort of, too long a period without enabling governments to align the direction of the organization.

I haven't seen any literature on – that says, look, this would be a maximum. I know in Quebec then, the mission of the enterprise is evaluated, sort of, once every 10 years, and that's the longest that I've seen. The risk with an annual review is that there may be too many changes on an annual basis. Five is more of that, sort of, moderate type of approach, I would say, in terms of providing some predictability and stability for the organization to take a reasonable time frame for its planning activities.

MS. O'BRIEN: I guess the – one of the advantages of what you're saying, annually you might be doing it too – you know –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – too frequently, too much change, I suppose. If you go too long it can be – become – the mandate can become stale dated.

DR. HOLBURN: That's right.

MS. O'BRIEN: Yeah.

DR. HOLBURN: So the organization may drift.

MS. O'BRIEN: Okay. Thank you.

Next if we could go to slide 14, please.

So this has been – your point 3 here, which addresses director remuneration, this has been a topic of a fair bit of evidence before the Commissioner. Certainly, we have seen evidence already here in our hearing room of some of the tension that you've described in that when you're talking about publicly funded positions –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – that there is often a reluctance on the part of elected officials, and perhaps because they're concerned about the public reflection of giving large compensation to members of boards of directors, balancing that, if you're not adequately compensating people for their time. You may not be getting people with the right skills and experience, or you might not be getting people who are actually giving enough of their time –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – to the job, which is always a risk if you under evaluate time.

You said that there's a tension; you've said that it has to be balanced. Can you give us any more direction on how other jurisdictions have either successfully or, in your view, not successfully achieved a balance?

DR. HOLBURN: Mm-hmm. A number of jurisdictions have set up – so, for example, in British Columbia they've set up guidelines for compensation of directors of Crown corporations or other government-owned entities and enterprises. This can potentially, sort of, depoliticize some of the political aspects of the decision making. We've seen a large range of approaches in how governments have tried to strike this balance.

I can think of a number of corporations where the government is very hands off and leaves it to the board of directors to determine compensation. And some of these organizations have been very successful, but I think that's partly reflecting the philosophy of the government not wanting to intervene in operations of the enterprise and to leave it and to really properly delegate to a board of directors in other organizations, and we've seen much more interventionist-type of approach, not just in setting compensation levels but in also the operation of the organization.

So I think part of it comes down to the philosophy, or the government has the extent to which it wishes to control a variety of operations of the organization. In general, I think governments tend to, sort of, intervene – if they intervene less and put more emphasize on a board of directors, and that's going to be more consistent with high levels of compensation.

MS. O'BRIEN: Okay.

One of the – we heard from former premier Kathy Dunderdale in Phase 1, and one of the points she made when being asked about compensation is: You know, look, we have a lot more Crown corporations and Crown corporation boards than just Nalcor Energy.

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: Which is the one we're dealing with here. And if you look at all those boards, all those board members, if we start compensating each one of them at the same level, we are going to end up with spending an awful lot of money. And some concern that if you compensated the different boards at different levels, because of the different industries or areas that they were working through, that may lead to a sense between the Crown corporations themselves of some imbalance.

I'm wondering if you can give us any insight as to how this may have been addressed in other provinces. Is it the case that it typically is for a province, say, one compensation package fits all for all Crown corporations? Or do – is the tendency to look at each Crown corporation individually and assess the appropriate compensation –

DR. HOLBURN: Yeah.

MS. O'BRIEN: – for that particular board?

DR. HOLBURN: Yeah. So, typically, Crown corporations can be quite different in terms of their size, their responsibilities, their roles. And so there would need to be some determination made of the particular needs and the appropriate level of pay for a type of corporation overall. So some recognition that corporation A is not like corporation B would then naturally lead to differences in pay recommendations.

But, again, setting up an independent or a separate government authority to make recommendations to specify what the bans would be, that would help to de-politicize that type of process.

MS. O'BRIEN: Okay, thank you.

Just moving one more slide forward to slide 15. Here you address in point 3 that there should be a separation between the role of the chair and the CEO, and I think later on you do talk a bit about the challenge function of the board. In reading in your paper that accompanies this presentation, you do talk about how the chair and the CEO can act as a check and balance –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – on each others authority.

I'm wondering if you could please give the Commissioner a little bit more detail on how that check and balance works when the governance systems for a corporation are working in a healthy way.

DR. HOLBURN: Mm-hmm. I think one of the errors is around communication of information. So, typically, having a separate CEO and a chair allows for two channels of communication between the organization and government. So typically, it would be the responsibility of the chair to communicate with the minister. That provides one flow of information backwards and forwards, and it would be the responsibility of the CEO to be liaising with a deputy minister. So then you've got two channels of information flows between government and the corporations or broadly defined as opposed to channelling it all through one organization – I'm sorry, through one individual.

So, as I mentioned, separating out the role of chair and the CEO is also important, just to avoid any sort of conflicts of interest, too. And we see this as being typically the case in terms of separating out this role within Crown corporations. Ironically enough within the private sector, I think we're more likely to see these roles being combined, but best practice principles are clearly moving away from that.

MS. O'BRIEN: Okay.

And you do – you've mentioned it a couple of times already today and it is in your paper, this idea that the primary communication with the shareholder at the ministerial level –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – is with the chair of the board, and at the CEO level of the corporation that primary contact with the shareholder is at the deputy minister level. Is that a very common structure throughout – that you're seeing throughout Canada?

DR. HOLBURN: This is certainly what's recommended within a number of different provinces. I think it is also common for CEOs to meet with ministers as well, because CEOs have that detailed level of operational understanding and expertise in terms of activities of the Crown corporation. So that certainly happens as well, and I see that happening – in Ontario, there will be meetings between the minister and the CEO and the chair, but I think it's also important for the minister and the chair to meet independently. So then the minister has got that independent view coming from the board which is charged with overseeing and monitoring the organization.

MS. O'BRIEN: And still on slide number 15, in terms of – point six there, you talk about board decision making and deliberation should be designed to embrace the challenge function of independent boards. So can you give us a little bit more on the challenge function?

DR. HOLBURN: Mm-hmm. So this is really the central task of boards, which is not to necessarily accept at face value the recommendations, proposals, reports of management but to bring that constructive approach to testing management's assumptions that have been made, the rationale for their arguments. So to have a healthy debate with management as to the appropriate course of action that's being considered.

So it's a check and a balance, or as I mentioned before, it's like this is the opportunity for sober second thought to consider whether management proposal is the best way forward or not. And this is due to the reasons that I elaborated in the beginning, and that's so the managerial interests may not be necessarily aligned with interests of the shareholders. So it is something that the board should keep in mind.

MS. O'BRIEN: This may be a bit of a self-evident question – the response may be self-evident, but is the best exercise of the challenge function, is that dependent upon there being the right people on the board who have the expertise and skills needed?

DR. HOLBURN: You need to have the right expertise and skills to ask the right questions of management to evaluate their responses and also, to evaluate whether the information that's being provided by management to the board is sufficient. And that's important outside the context of board meetings as well, because typically board members – well, they should be receiving all the information for board meetings before the meeting – sometime before the board meetings occur. And this gives them an opportunity to assess is this the right type of information that I need.

And so, for that – yes, you need to have experienced board members who understand the organization, the industry, the political context. And also, having experience as a board member generally, I think, will alert board members to areas where they should potentially probe and challenge more.

MS. O'BRIEN: Thank you.

Also, when you were on this slide, I believe when you were talking about the role of the chair, you talked about the chair and – if I heard you correctly – the chair as the – acting as the external spokesperson?

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: Can you please explain what you mean by that.

DR. HOLBURN: The chair of the board is the representative of the board. And so, generally, the chair would be charged with speaking on behalf of the board publicly. This may be speaking to a legislative committee, for instance, that wants to understand or gain some information on the activities of the Crown corporation. This may also involve speaking with the media and, certainly, speaking with the minister as well or with, potentially, other – other stakeholders.

MS. O'BRIEN: Okay.

At times, we know that CEOs do act as a public spokesperson for the corporations.

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: So I know that that is at least very common.

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: How do those, you know, the two roles, the different – two potential spokespersons –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – for the organization – how is that typically managed? And does that tie to a communications protocol?

DR. HOLBURN: Right. So, sorry if I wasn't clear just now. I mean, that the chair is a representative of the board –

MS. O'BRIEN: Okay.

DR. HOLBURN: – and speaking on behalf of the board.

And the CEO would be speaking on behalf of the corporation and representing the corporation publicly as well.

So it's common that the CEO would also be the voice of the corporation for external stakeholders in terms of communicating with external stakeholders.

But the chair is representing the board specifically.

MS. O'BRIEN: So when an issue happens that the corporation is facing and –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – there's a need to speak externally to someone –

DR. HOLBURN: Mm-hmm. Yeah.

MS. O'BRIEN: – how is it typically worked out? Who's the person who's going to do the speaking?

DR. HOLBURN: I would hope there would be some communication between the CEO and the chair in terms of who's going to be taking the lead on that.

MS. O'BRIEN: Okay.

Slide 17, please? So this was – this slide here is on the Darlington Refurbishment Project, which is a project that you already gave us some evidence –

DR. HOLBURN: Yes.

MS. O'BRIEN: – on in Phase 1.

And so, from what I understand from this – this particular slide here is showing, I believe, three different types of oversight that were in place in the Darlington – or are in place on the Darlington Refurbishment Project.

So the one you brought us to – which is in the red box on the slide – I understand, this was the board of directors of OPG. The board itself set up a committee to do oversight specifically of the project.

Is that correct?

DR. HOLBURN: That's correct, yes.

MS. O'BRIEN: Okay.

And they hired, I think you said, two external advisors –

DR. HOLBURN: That's right.

MS. O'BRIEN: – to help them do that.

And then additionally, I take it, the second – the yellow row there, Refurbishment Construction Review Board – I – as I'm reading this, I understand this was a – the senior management of OPG also set up a separate review board that also – that consisted of external industry experts.

DR. HOLBURN: Yes.

MS. O'BRIEN: So again, expertise –

DR. HOLBURN: Yes.

MS. O'BRIEN: – coming in to give a level of oversight.

DR. HOLBURN: That's correct.

MS. O'BRIEN: Okay.

And the final one there is the senior project management team provided its own form of oversight as well.

Is that correct?

DR. HOLBURN: Right, yes.

MS. O'BRIEN: So this – I think, appendix 2 of your paper – and maybe if we could just go there, Madam Clerk, the paper is P-01770. And I believe if we go to page 23 of the paper, this is Appendix 2 of your paper, Dr. Holburn.

And so, I understand that what you included in here is the charter for the board committee.

Is that correct?

DR. HOLBURN: That's right. Yes, I have.

MS. O'BRIEN: Okay.

And, I think, there in the recitals, Commissioner, I'll just draw your attention to it. The recitals of the charter do talk about this multiple layers of internal and external oversight on the Darlington project. So and it talks about the external experts.

I'd like to get your view, Dr. Holburn, on what is – what are the advantages or disadvantages, say, of the board of directors directly retaining, either through a committee or the board itself –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – retaining experts to advise it versus relying on experts or consultants that may have been hired or retained by the corporation itself?

DR. HOLBURN: Mm-hmm.

So by directly retaining the advisors, then the advisors are accountable to the board. They're not accountable to the management that is trying to execute the project. So by establishing this independent relationship, then the board should be obtaining an unvarnished opinion, an independent opinion on the status of the project, and they control that relationship and that information.

MS. O'BRIEN: Okay.

DR. HOLBURN: There is no opportunity for information to be selectively provided to the board.

MS. O'BRIEN: Thank you.

If we could next go back to the PowerPoint presentation and go to – that's P-02020 – and go to slide 19, please.

So, one of the – what I'd like to get some further thoughts with you on is with respect to – this is under the title of Monitoring and Reporting – and point 2 points to: "The Board should communicate regularly with government." And, I think, in discussing this, you also talked about, you know, the CEO and the deputy – speaking to the deputy minister and such, as just discussed.

I'd like to get – one of the issues that's arisen in the evidence so far is that we – communication to the shareholder was not always done in writing.

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: So we had a lot of oral reporting and – not exclusively oral reporting, there was written reporting as well – but some key pieces of information appear to have been not done in writing.

Is there any – you know, is that – is there any considered a good practice, good governance practice of ensuring that, you know, communications are written? And I'm – you know, it raises questions, of course, of traceability and accountability –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – and those kinds –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – of things.

DR. HOLBURN: If I were to use the analogy or extend best practice from board meetings where the meetings are minuted – so there's a record of important discussions of information, there's a record of information that's being provided, there's a record of important decisions that are made. And the reason that meetings are minuted is to provide that record in case there's a potential dispute or there's some uncertainty in the future and also to provide some continuity in case there's turnover in management or there's turnover in boards of directors. So you've got that written record to rely on.

I think that same principle of good governance practice also applies to meetings between, say, for example, the chair and the minister where it might be expected there would be some written record – not of, clearly, of sort of the word to word sort of discussion, but of the major elements that were discussed and any conclusions or recommendations that were made as a result of those meetings.

MS. O'BRIEN: Okay, thank you.

Finally, I would like to go back to your paper and to Appendix 3 of that paper, just to give a little bit of context for Appendix 3. So if we could go to P-01770, please, Madam Clerk, and if you could go to page 27.

This is a lengthy appendix. Dr. Holburn, I'm not going to ask you to go through it all, but could you just explain for us – you've obviously created this appendix –

DR. HOLBURN: Mm-hmm.

MS. O'BRIEN: – for a purpose. And can you just explain for the Commissioner what this appendix is doing and how it may assist him?

DR. HOLBURN: Yes. Indeed, it is a lengthy appendix and you'll be very glad I didn't spend time going through it all. This is, essentially, an extended elaboration of each of the subsections of the paper, and it references the individual studies and reports that are providing the best practice recommendations. So, as you can see, for each of these subheadings I'm drawing on a number of reports that are essentially drawing out the same types of best practice principles and recommendations.

So this is like the reference set. If you want to go back and read the original documents, this is the reference set.

MS. O'BRIEN: Okay. Thank you very much.

Those are my questions for you, Dr. Holburn. Others will likely have questions for you.

Before I sit down, Commissioner, I'd like to enter some further exhibits or seek an order to enter P-01771 to P-01803.

THE COMMISSIONER: All right. Those will be marked as entered.

MS. O'BRIEN: Thank-you.

THE COMMISSIONER: Before we begin cross-examination, I think we'll take our afternoon break for 10 minutes.

CLERK: All rise.

Recess

CLERK: Please be seated.

THE COMMISSIONER: Okay, Government of Newfoundland and Labrador?

MR. RALPH: No questions, Commissioner.

THE COMMISSIONER: Nalcor Energy?

MR. SIMMONS: Good afternoon, Dr. Holburn.

Dan Simmons for Nalcor Energy.

DR. HOLBURN: Good afternoon.

MR. SIMMONS: Just a few questions for you this afternoon.

You started out your – early on in your presentation you mentioned that Crown corporations have a mixture of commercial and policy objectives. And by that I take it to mean, perhaps, public policy objectives. And in describing the mandate letter for BC Hydro, you've pointed out what some of those policies objectives would be, such as facilitating economic growth in the province through capital work that was undertaken

So my question concerns where the responsibility for determining those policy objectives lies and for implementing it. So it's really a two-part question I'll have for you because we generally assume that it would be government that sets the policy, the Crown corporation that implements it.

So the first question I have is to what extent is it correct that government has an exclusive jurisdiction to set public policy? Or is it appropriate for Crown corporations to play a role? And then the second question flowing from that is on the implementation side, should it be left to a Crown corporation to independently implement? Or is it appropriate for government to have a hand in how the policy gets implemented to the Crown corporation?

So it's a bit of a long and –

DR. HOLBURN: Mm-hmm.

MR. SIMMONS: – complicated question, but I'm interested in your comments on that issue.

DR. HOLBURN: Okay, well let me do my best to answer you.

Generally then, the remit of government is to establish the public policy objectives that it wishes the Crown corporation to prioritize. So that would be within the purview of government. And then it's a responsibility of the Crown corporation to implement that effectively.

Now, it may well be that during the course of implementation then the Crown corporation may discover impacts or issues that arise that may not have been anticipated by the government, but have consequences for those public policy objectives. So in that case then one might expect there to be an ongoing discussion and communication with the government as to how to deal with some of these unexpected issues that may arise in the course of implementation.

MR. SIMMONS: So the unexpected things that may arise in the course of the implementation, would that apply in a case where the public policy direction that has been given to the corporation doesn't address the circumstances that arise?

DR. HOLBURN: Potentially, yes.

MR. SIMMONS: Okay.

DR. HOLBURN: That could –

MR. SIMMONS: So –

DR. HOLBURN: – potentially be the case.

MR. SIMMONS: So assuming that there is sufficient guidance in the statement of public policy and the determination of policy that has come from government, should it then be left to the Crown corporation to implement as it sees fit? Or is it appropriate for government, on its own initiative, to involve itself in the implementation or the control of the way that the policy is implemented?

DR. HOLBURN: I think it's going to depend on the extent of these unexpected issues and –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – the interpretation of how they're going to affect the corporation's ability to achieve its objectives. If there's uncertainty about whether a Crown corporation should proceed or not or else, whether it aligns with the government's policy objectives –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – then communication can help resolve any of that uncertainty. Generally, these – generally, the public policy mandates or targets are going to be somewhat broad and –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – vague in nature and it's only once you get down to the implementation then it's going to be clearer as to what the impacts will be.

So as that clarity gets resolved, or that uncertainly gets resolved, then ongoing communication between the corporation and the governments can help resolve the best course of action.

MR. SIMMONS: Right, because governments have, well, choices about how they choose to carry out the policies that they adopt, and one –

DR. HOLBURN: Mm-hmm.

MR. SIMMONS: – is simply to give the mandate to a department of government which fits in with the bureaucracy, has established lines of authority, and the people in government know how that works. And the other is to give that mandate to a Crown corporation. And our general conception is that when a Crown corporation has the mandate, it has it because there's some need for it to act more independently of government –

DR. HOLBURN: Mm-hmm.

MR. SIMMONS: – either for commercial reasons or for some other reason.

So is there an expectation then, that when a public policy direction is given to a Crown corporation, that there's an expectation that it will act more independently in how it implements that, than if it were a department of government?

DR. HOLBURN: Yes, this is one of the purposes of –

MR. SIMMONS: Mmm.

DR. HOLBURN: – establishing a Crown corporation, to give it autonomy.

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: Though I think we will see in mandate letters that there is a requirement for major issues that will affect either the corporation or the government. If these arise, then there's an expectation there'll be a communication with government, depending on the magnitude of the issues.

MR. SIMMONS: Right.

Now in the absence of a mandate letter, if the policy direction to the Crown corporation is set out at a high level in legislation, without a mandate letter giving more specific direction what sort of considerations would the Crown corporation then have to take into account in determining when it needs to go back to government for consultation –

DR. HOLBURN: Mm-hmm.

MR. SIMMONS: – or direction, and when – when can it continue to act within its own mandate to independently implement policy?

DR. HOLBURN: So this would be the responsibility partly of the organization –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – for example, the CEO, to communicate these issues as they arise, say, for instance, with a deputy minister. It would also be the responsibility of the chair of the board to raise some of these major issues, to raise them with the minister responsible for the corporation, to alert the government of –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – major issues that arise and to resolve any uncertainty about how best to proceed.

MR. SIMMONS: Okay.

One of the differences in function between a private corporation and a government, certainly, concerns protection and disclosure of information. In the private sector, information can be very valuable for the objectives of a company. It can be strategic information, it can be commercially useful information, and protecting that information allows the company to achieve its commercial goals often by – when they're in a competitive situation or when they have to adopt some strategic approach.

In government, I think it's fair to say that having a certain amount of information accessible to the public is an important piece of accountability for governments, and a Crown corporation is probably somewhere in between the two. So for a Crown corporation, there's potential for there to be conflict between the protection of information for achieving the purposes that the corporation is set up to achieve and for public disclosure of information to meet the accountability goals that government has.

So, I wonder if you have any comment on that conflict, how it tends to be addressed and resolved, or if there's any best practices around management of that.

DR. HOLBURN: Mm-hmm. That's a good question.

The, sort of, best practice principle would be to determine which information is commercially sensitive.

MR. SIMMONS: Yes.

DR. HOLBURN: And to make efforts to not have unnecessary disclosure of material information that would potentially damage the firm within the marketplace.

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: That would be the broad principle that applies.

MR. SIMMONS: Right. Would there be any expectation that the same disclosure principles and rules that would apply to government, itself, would apply to a Crown corporation that's engaging in a commercial enterprise?

DR. HOLBURN: Could you elaborate a little bit on that or expound?

MR. SIMMONS: Governments are – there's expectations that information that governments have is available to the public, like I said, for the accountability purposes; types of information that a private company would not always have to disclose.

So, for a Crown corporation, should a Crown corporation be held to the same disclosure standards as government or is it something less, something closer to a commercial private company?

DR. HOLBURN: Right. I see what you're asking now.

In terms of freedom –

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: – of access to information and –

MR. SIMMONS: Right.

DR. HOLBURN: – so forth –

MR. SIMMONS: Sure.

DR. HOLBURN: – I think it would be more normal. There would be some restrictions around that due to commercial sensitivities. But, at the same time, there is the risk the company may – or the corporation may wish to safeguard information that could be publicly disclosed.

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: So there would need to be a process to ensure there's going to be a reasonable or independent evaluation of whether this information actually really is commercially sensitive, or else whether it could instead come into the public domain without interfering with corporations' commercial activities.

MR. SIMMONS: Okay. Thank you.

I had a couple of questions for you about the Darlington nuclear reactor refurbishment –

DR. HOLBURN: Mm-hmm.

MR. SIMMONS: – committee that you described, and Ms. O'Brien took you through that.

DR. HOLBURN: Yes.

MR. SIMMONS: So, some of the different levels of oversight that are there. And the committee that has been set up by the board of directors that you described, can you tell me how either common or novel that sort of arrangement is or has been in Canada –

DR. HOLBURN: Mmm.

MR. SIMMONS: – for large capital public projects undertaken by a Crown corporation? Are there other precedents –

DR. HOLBURN: Mmm.

MR. SIMMONS: – prior to Darlington for that model?

DR. HOLBURN: Good question. I wish I could give you a – an empirical answer on that. I haven't looked at that specific issue, so I wouldn't be able to comment on other –

MR. SIMMONS: Okay.

DR. HOLBURN: – large-scale megaprojects.

MR. SIMMONS: Now, you did say the Darlington project began – I guess work began in 2015? Do you know –

DR. HOLBURN: It did.

MR. SIMMONS: – when this model for the board committee was adopted?

DR. HOLBURN: The committee was adopted, as far as I can recall, I think I'm accurate in saying at the same time the work began or maybe potentially just beforehand as well.

MR. SIMMONS: Okay. So 2015 –

DR. HOLBURN: Yes.

MR. SIMMONS: – maybe 2014.

DR. HOLBURN: Yeah. Yeah.

MR. SIMMONS: In that time –

DR. HOLBURN: It was around 2015.

MR. SIMMONS: Okay. All right.

So –

DR. HOLBURN: That was the time – sorry – that was the time at which the project was sanctioned and approved.

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: The work of – the work in terms of evaluation of the project had begun in 2007 –

MR. SIMMONS: Hmm.

DR. HOLBURN: – but it was in 2015 that the major project was sanctioned and then the refurbishment process –

MR. SIMMONS: Right.

DR. HOLBURN: – actually began so.

MR. SIMMONS: So this particular committee was for the purpose of monitoring the execution of the work and hadn't been involved in this – in the process leading up to the sanction decision in that case.

DR. HOLBURN: Correct.

MR. SIMMONS: Okay. Yeah.

Has there – to your knowledge, has there been any kind of study or evaluation of the effectiveness of this oversight model in the Darlington case?

DR. HOLBURN: The Auditor General of Ontario –

MR. SIMMONS: Hmm.

DR. HOLBURN: – has studied the development of the Darlington Refurbishment Project as part of Auditor General's review of actions of government-owned enterprises within Ontario. So the Auditor General has sort of reviewed this and it's looked at the governance arrangements and, if I recall correctly, has commented that there are extensive governance arrangements both internally and externally for the Darlington Refurbishment Project.

MR. SIMMONS: Hmm. And I guess we won't know 'til the project is done, if we'll be in a position to look back and try and measure what the effectiveness of that arrangement has been.

Okay. But one other question in relation to it. Can you, I wonder, make some comment on what kind of capacity and resources a Crown corporation board would have to have in order to implement a committee like the one at the Darlington project?

DR. HOLBURN: Mm-hmm. It requires a sufficiently large board to be able to have the capacity to set up a new committee.

MR. SIMMONS: Mm-hmm.

DR. HOLBURN: So there's a new committee, that's in addition to the existing committee. There's audit, corporate governance, nomination committee and so forth. So you need a sufficiently large committee – sorry, sufficiently large board to be able to create the committee. And, of course, there are going to be some resources needed, some financial resources to support the retention of additional experts who are reporting to the board.

MR. SIMMONS: Good.

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

DR. HOLBURN: Thank you.

THE COMMISSIONER: Concerned Citizens Coalition.

MR. BUDDEN: Good afternoon, Dr. Holburn.

DR. HOLBURN: Good afternoon.

MR. BUDDEN: I'm –

THE COMMISSIONER: Ms. O'Brien.

MR. BUDDEN: – what I'm –

MS. O'BRIEN: Sorry to interrupt, Mr. Budden.

Commissioner, I forgot, there's a new exhibit that's been created, P-02113. I seek to have that entered now, and I believe Diane Blackmore actually provided you a copy just a little while ago. Sorry to interrupt.

THE COMMISSIONER: That's the Wood Mackenzie report? Okay.

Go ahead, I'm sorry –

MR. BUDDEN: Okay, sure.

THE COMMISSIONER: – Mr. Budden.

MR. BUDDEN: No problem.

Dr. Holburn, as I – when I spoke to you a few moments before we started, as I advised you then, my plan this afternoon is to put to you evidence from Phase 1, essentially evidence from the directors of Nalcor, at least several of them, as to some of their experiences as directors, and as to how the board functioned. And what I'm going to do is read you passages from their evidence and then basically ask you is, what you have heard, is it in accordance – and this is a phrase that you use in your report, in accordance with "best practice principles for corporate governance arrangements of Crown corporations."

So that's how I plan to proceed. And, Mr. Commissioner, what I've done, I'll be referring to the evidence of October 15, and I've printed off, for the benefit of the witness, of yourself and of Commission counsel, copies of the transcript for that day – which I haven't brought them up for everybody, but they are available online – and I'll be reading the quotes. So if I may, I can pass this to you now.

THE COMMISSIONER: Thank you.

So these transcripts are available online. I'm not sure how effective your Internet is working, it's not working very well for me. So I apologize.

We have – one of the problems that we had – just to explain a little bit about this morning's situation. We tested the Skype quite thoroughly before I got here, because I was concerned that it wasn't going to work appropriately. And of course we tested it at a time when there wasn't as much bandwidth being used in the area as what there was this morning. So the result is that we didn't get the quality that I had expected this morning from that Skype interview, but we do – my understanding is, is that the transcript is very clear, or the persons doing the transcription said it's very clear for them and that they will be able to provide a very accurate transcript.

Similarly, for the Internet here, I think we're having trouble with the bandwidth and this is the very best we can do at this stage of the game. So I apologize to counsel if they're not going to be able to review – refer specifically to the transcripts of the evidence which are available online.

But you go ahead, Mr. Budden, and if you could just –

MR. BUDDEN: Sure, and I'll –

THE COMMISSIONER: – refer to the sections so that counsel know and the public know exactly what it is you're referring to, that would be …

MR. BUDDEN: Yes, that was always my intention but I thought it'd be helpful to have, for certain people at least, to have it in front of them.

THE COMMISSIONER: Right.

MR. BUDDEN: And this is sort of a given, but, again, for the benefit of the public it never hurts to state it. Nalcor, as you know, is a Crown corporation with billions of dollars of assets in the hydroelectric, oil and gas, and other related energy sectors, and is essentially the vehicle by which Newfoundland and Labrador manages its energy warehouse. So that's the board I'm referring to, Nalcor Energy and its subsidiary corporations.

So perhaps we can start by turning to page 7 of the transcript, which is in front of you. And I'm reading a passage that begins on the lower left-hand side, and this is about the role of the deputy minister on the board of Nalcor, or rather its immediate predecessor corporation, Newfoundland and Labrador Hydro. So I will read you there –

MR. SIMMONS: Mr. Commissioner, I wonder if we might know whose transcript?

THE COMMISSIONER: This is the transcript of the board members panel that we had.

MR. BUDDEN: Yeah, I should have made that clear. It's the –

THE COMMISSIONER: Mr. Clift, Mr. Marshall and –

MR. BUDDEN: Mr. Clift –

THE COMMISSIONER: Shortall, Mr. Shortall.

MR. BUDDEN: Yes. Mr. Clift, Mr. Marshall, Mr. Shortall and Mr. Styles.

MR. T. WILLIAMS: If it was possible, if you can refer to who you're – which witness is giving the evidence –

MR. BUDDEN: I will.

MR. T. WILLIAMS: – it might be a little – or can you –

MR. BUDDEN: I certainly can, yes.

MR. T. WILLIAMS: Yeah, it would be useful for us.

MR. BUDDEN: Yes, this is the evidence of Mr. Ken Marshall, and I'm reading from page 7, and I'm just focusing on the second part of his evidence because that's what I'm interested in here, the second part of that passage. And so I'll read you from the beginning of the first paragraph on the left-hand side of page 7, and it's the deputy minister role that I'm interested in here.

"With respect," and he's talking to Ms. O'Brien. "With respect, you asked about, you know, how our comments got back to the shareholder and I really echo Tom" – and Tom was another board member – "in that I really don't know. At the time, Dean Macdonald was chair and what relations he had with the premier with respect to communicating that – but the other important thing" – and this is where my emphasis lies – "is at the time the deputy minister of Natural Resources would sit on the Newfoundland and Labrador Hydro board. So there was a direct link to have any feedback and commentary from the board back into the work of the department."

So, really, I have two questions here, Dr. Holburn. The first is about the appropriateness in accordance to best practices, the fuller quote which I laid out earlier. How appropriate would it be to have the deputy minister of a government department sit on the board of this Crown corporation? And, the second part: How appropriate would that be as an effective means of communication between the board and government?

DR. HOLBURN: So, in British Columbia, for instance, it's very clear that the recommendations are to not appoint deputy ministers to Crown corporation boards. And the reason for that is that the concern is that the deputy minister would be viewed as speaking on behalf of the government and not necessarily acting or speaking and making decisions in the interest of the organization, sort of, per se.

So that's one potential conflict of interest that can occur. That said, it does provide potentially a communication mechanism between the board and the government. So that is a potential, sort of, offsetting aspect of having a senior level bureaucrat or an elected official on the board. Though, in British Columbia, then it's deemed that that benefit does not outweigh the potential challenge of having a government official on the board.

MR. BUDDEN: Yeah. So British Columbia would regard it as not in accordance with best practices here in Newfoundland –

DR. HOLBURN: Hmm.

MR. BUDDEN: – at the time. Approximately 12 years ago it was the practice. Can you give us a broader sense of the consensus around this issue within the academic –

DR. HOLBURN: Mm-hmm.

MR. BUDDEN: – literature?

DR. HOLBURN: So, generally, and I've seen this written also in studies at the federal level, then the view would be that having elected officials on the boards can be problematic.

MR. BUDDEN: Okay. In this instance it's not an elected official.

DR. HOLBURN: Sorry. Sorry, I mean government officials.

MR. BUDDEN: A deputy minister.

DR. HOLBURN: Yeah, yeah. Government officials.

MR. BUDDEN: Okay.

We've also heard evidence – and this is generally on page 15, but I think I can summarize it. We've heard evidence that being on the board of Nalcor was, depending on the particular responsibilities of the board member, was a time commitment of between 80 and 100 hours a month, and this was a period of time that stretched on for many years for many of these members. We've also heard that most of the board members, in addition to this Nalcor commitment, were holding down demanding full-time jobs.

So I guess my question is: With such a time demand on board members who are already busy with their working lives, would that be in accordance with best practice principles?

DR. HOLBURN: Generally, the time commitments for a board director would be considerably less than that. That seems a very high amount to expect of a board director. Board directors are often not pursuing sort of full-time employment. They may be retired or they may have other directorship positions. But, even so, that level of commitment of 80 to 100 hours a month seems very high.

MR. BUDDEN: Okay. The – I'm going to read you a passage from page 20. The concern here is around the mandate letter which the board may or may not have received from government, which, again, is something you referred to in your presentation.

So I'm really going to read a good chunk of the left-hand side of page 20. And it begins with a question from Commission counsel O'Brien as follows, and this question was directed to Mr. Tom Clift who was one of the board members: "So we have a list here that some of these corporations" – and this is a reference to how other corporations did it – "some of these corporations have letters of expectation that would have been given by their shareholders to the board. Some of them had shareholders agreement that would have set out, you know, expectations from the shareholder to the board. I think sometimes these documents may be referred to as a mandate letter.

"Was there anything similar, Mr. Clift, that you had from the Government of Newfoundland and Labrador governing the work you had to do as the board of directors for – in the management of Nalcor?"

And he replied: "We had the *Energy Corporation Act* and all of the details and by-laws and so on, and we subsequently developed mandates. I don't recall a specific mandate letter."

And Ms. O'Brien again: "Okay. So yes – so you would have had the legislation, which obviously would have been drafted by government. Now, the by-laws though, I understand, those would have been drafted by the board itself?"

Mr. Clift: "Right."

Ms. O'Brien: "The same as the – all the mandate documents."

And Mr. Clift said something, it appears to be in the affirmative.

Ms. O'Brien: "So in terms of official instructions or expectations from government itself, you would have had what was just in the legislation?"

Mr. Clift said: "I think so."

So, essentially, what I take from this is the – rather than a formal mandate letter such as you described in your redirect with Ms. O'Brien, these individuals had the legislation itself plus documents that they themselves had generated. How is that in accordance with best practices?

DR. HOLBURN: Best practice is for the minister responsible to provide a mandate letter or letter of expectations to the board. So this would not be in accordance with best practice.

MR. BUDDEN: Okay.

On the same page, on the right-hand side, there's a discussion of shareholder relation strategy and I – it's a short passage, I'll read to you. Again, Ms. O'Brien mostly questioning Mr. Clift. "Ms. O'Brien: Do you recall whether any shareholder relation strategy was ever put in place? Mr. Clift: I do not." And then "Unidentified Male Speaker: What's the date on this? Mr. Clift: 2012."

And this is sort of the key passage: "Ms. O'Brien: This was December 2012 when this document was created. If you don't, that's fine. Does anyone – any of the other board members" – it was a panel of four board members who were testifying – "Any of the other" – four – "any…board members have any recall of a communications strategy – a formal document setting out how to communicate, and what – the ways and things to communicate on between you and the shareholder?"

And she says, "Okay. So, no? Okay." So I take from that there was an absence of a formal communications – shareholder relations strategy – and again, is that in accordance with best practice?

DR. HOLBURN: Typically, communications protocols would be included in a mandate letter or a letter of expectations letter. And these would specify who should be meeting with whom and on what basis and for what reasons. So the absence of that being specified in writing by the government is not consistent with best practice.

MR. BUDDEN: Okay, we'll carry over to the next page, page 21. And there's some more questions on a related theme about communications between ordinary members and the shareholder. And there's a passage there, it – on the lower left hand side, and it's Ms. O'Brien, again. She says, "I'm gonna ask now, each of you then, about what communications, if any, you had with members of government, and I'm gonna start with the regular board members. So maybe I'll start with you, Mr. Clift.

"Did you communicate with Government of Newfoundland and Labrador either formally or informally about Nalcor business while you were on the board?" And Mr. Clift replied, "Not typically. We had an established protocol whereby things that were discussed at the board level went to the chair. The chair and/or the CEO talked to government."

So firstly, what he is saying there as an ordinary board member is that he did not – for the most part and the exceptions we'll get to – communicate directly. That was left to the CEO and the chair, and I guess I'm asking you, I assume that would be in accordance with best practices that ordinary members not communicate directly to the shareholder.

DR. HOLBURN: Normally, best practice would be for the chair to act as a representative of the board in its communications with government.

We have seen a number of cases where recommendations have been that the minister meet with the entire board once a year. I don't think that happens very frequently, but the general spirit is to improve that level of communication.

But just to answer your point directly then, typically it's the chair that has that responsibility.

MR. BUDDEN: Okay, that segues nicely into my next question. And in this case Ms. O'Brien is questioning a former chair. And the dates here are important to us, which is why I'm using this particular quote: "Ms. O'Brien: So now I'll go to our two former Chairs. So, Mr. Styles, you were chair of the board from June 2012 until February 2014. So that's during the period of sanction. What types of communications would you have had with the government?" Mr. Styles replies: "Virtually none. I did have one meeting with Minister Kennedy when I started but it was more of an introduction than anything. No formal business discussion, and I never met with the premier or any of the other" – department – "ministers with respect to file."

Is that something that you would regard as in accordance with best practices?

DR. HOLBURN: Best practice would call for regular – not necessarily frequent, but regular – communication between the board chair and the minister, and additionally on an as-needed basis as major issues arise.

MR. BUDDEN: Sure.

DR. HOLBURN: So the absence of communications for almost a two-year period would not be consistent with best practice.

MR. BUDDEN: Sure. You gave some evidence in your direct examination on this but just for completeness I'll return to it.

Regular, obviously, is not a precise term but we have a period here of roughly a year-and-a-half; a very important period in the life of Nalcor.

What kind of meeting schedule would you anticipate between the chair and the minister in that time frame?

DR. HOLBURN: British Columbia recommends that ministers and chairs meet at least quarterly, and in addition on an as-needed type of basis.

MR. BUDDEN: So at least quarterly per annum?

DR. HOLBURN: Yes.

MR. BUDDEN: Okay, thank you.

I now have a rather long passage on page 25 carrying over to page 26, and this is about board size, and it's a questioning of Ms. O'Brien of Mr. Marshall primarily, who is a board member for many years. And the particular thing I'm getting out of this is he talks about the fluctuating size of the board, so I'd like you to pay, perhaps, particular attention to that.

DR. HOLBURN: Mm-hmm.

MR. BUDDEN: So, Ms. O'Brien starts: "Okay. I am going to take some time to just review what size the board was, Commissioner, over the various periods. I'm going to particularly highlight, of course, the periods that have to do with Decision Gate 2 and Decision Gate 3.

"So from July 2008 to April 2011 – so during this period, obviously, DG2 would've occurred in November of 2010, the term sheet of Emera would have been signed the same month, so, some very important milestones, certainly, for the Muskrat Falls Project. During this period there were six members of Nalcor's board and that would have been Ed Martin, John Ottenheimer," – and she names the rest of them here – "so, five independent members plus Mr. Martin." Mr. Martin, does that accord with your memory?

MS. O'BRIEN: Mr. Marshall.

MR. BUDDEN: Sorry. "Mr. Marshall, does that accord with your memory?"

Mr. Marshall said: "That's during the years 2008 to '11?" And Ms. O'Brien says "Yes."

And he says – rather Mr. Styles and he – two other board members – say yes.

So, firstly we have – during this three-year period – a board consisting of six individuals, including the CEO – so, five independent members. Is that in accordance with best practices?

DR. HOLBURN: Generally, best practice recommends that boards be sized between eight and 12 members and that would include a CEO if he is also a member of the board. So, six is clearly somewhat below that lower end of the scale –

MR. BUDDEN: Sure.

DR. HOLBURN: – particularly for a corporation of this size.

MR. BUDDEN: And we continue. Ms. O'Brien: "And then … in April 2011 through the period through to May 2012 – so approximately a year's period – you actually went down a member so that you'd had only five members of the board and four of them being independent members. And that was because Mr. Ottenheimer resigned from the board and at that time Ms. Bennett became chair. Does that coincide with your recollection, Mr. Marshall?"

And he says yes.

So, we're now down from six to five. So, I take it that that would be even more of a departure from best practices.

DR. HOLBURN: Very challenging for a board to staff committees once you get down to five or six members.

MR. BUDDEN: Okay. And it continues: "Ms. O'Brien: Okay, and now in May of 2012, Cathy Bennett resigned so you were down to four members –"And Mr. Clift interjects: "It's a pattern." Ms. O'Brien says: "Yeah – four members: that would have been three of you and then plus Mr. Martin."

So we're now down to three independent members. As Mr. Clift says, indeed a pattern and – what do you have to say about that?

DR. HOLBURN: I feel sorry for the board. It's an extraordinary stress to put on a board, and when you have the three independent members. Typically, the minimum size for a committee is going to be three members of the committee. So, this would mean then that the committee members are trying to undertake the full work of the board and then each of them is going to be on each of the committees as well. So this is an extraordinary demand being made of the board members.

MR. BUDDEN: Okay.

And then shortly they got some more appointments, which leads into my next quote of a somewhat less than board, to use Mr. Clift's term. So there's a brief quote here, and I'll continue for completeness.

Ms. O'Brien said, okay, "Yeah – four members: that would've been three of you and then plus Mr. Martin." And here's the new part, "But now shortly after that there were some new appointees. This is coming close to the period where the project was sanctioned.

"But in June of 2012 through to the period of February 2014 you had eight total members of the board, because at that time you had four additions …." – and she names them, and he, Mr. Marshall, confirms that information.

So we're now up to a board of eight, including the CEO. So seven independent board members. So would I – can I infer from your earlier comments that we're now at the bare minimum of an appropriately constituted board in terms of its size?

DR. HOLBURN: I'm just getting to that lower end, yes, correct.

MR. BUDDEN: Okay.

We've also had a fair bit of evidence – it's mostly around page 37, for anybody who wish to follow, but I think I can summarize it. The evidence, as I understand it, is that ordinary board members, taking into account the totality of the compensation they would have received from serving on the various committees and boards that were subsidiary to Nalcor, would have received about $2,000 to $5,000 a year in their total compensation for serving on the board of Nalcor and on of these subsidiary committees and corporations. The chair received somewhat more.

And, again, bearing in mind that we're talking about individuals who're working 80 to 100 hours a week – a month, rather. Compensation of that level, how does that accord with best practices?

DR. HOLBURN: You can draw comparisons with other energy utilities of a comparable size. They – from the organizations that I'm aware of, levels of compensation are many orders of magnitude largest than that. In addition, the board size is larger – typically, the board size would be around 10 members or so, and the work requirements would be considerably less. So this would be at the lowest end, that I'm aware of, in terms of compensation of board members.

MR. BUDDEN: Have you, in your studies, in your practice, in your research, come across a board of a major Crown corporation with so few board members receiving so little compensation for so many hours work?

DR. HOLBURN: No, I have not.

MR. BUDDEN: Okay.

Well, I'd like to turn to page 88 of the transcript, and there's a passage that I'll read there. And what I'm getting at here is the interruption in tenure of certain board members or certain gaps in the reappointment process.

So, I'm reading from the top of the right-hand column, reading – starting with Mr. O'Brien's question, and this is to Mr. Clift, although other board members jump in. "And I understand there became a problem with those fixed-terms appointments. Can you describe for us what that was?"

Mr. Clift: "Yes, there were – there was no renewal in it. There was no timely renewal, so if we were to schedule to come off the board on December 31 of 2006, then we were in limbo until such time as we were reappointed, or we were just hanging there. And in my case, and I believe Mr. Shortall's, it was about a nine-month period before we were effectively reappointed. And so we –"

And then Ms. O'Brien: "So you weren't – you had no formal appointment to the board; your term had expired."

Mr. Clift: "Right."

Ms. O'Brien: "Were you still going to the board meetings to keep abreast?"

Mr. Shortall, another board member: "I was."

Mr. Clift: "Yes, I believe so."

Ms. O'Brien: "Okay, so there was an expectation that you would be renewed, it was just slow to come. Is that the idea?"

Mr. Shortall: "Yes we were –" and "We were told we were going to be reappointed, but it takes the time to get through Lieutenant-Governor in Council and get a Cabinet appointment. It takes time."

And Mr. Clift says: "And originally –"

Mr. Shortall: "– in my case, I'm not sure about Tom, but I still attended all the board meetings and I still chaired the Audit Committee."

So, I would ask, is it in accordance with best practice to have members, even though their appointments had lapsed, to be continuing to serve on the board in this sort of void, I suppose, into even share an audit committee? What do you have to say about that?

DR. HOLBURN: I haven't heard of this before in terms of this volunteer-type of position. But this would not be consistent with the, sort of, legal requirements to appoint board directors since I have them reviewing confidential corporate material.

MR. BUDDEN: Sure.

I'm going to end with referring us to a couple of exhibits, and then I'll come back briefly to the transcript.

Madam Clerk, could you please call up Exhibit 00401? And it's page 4 of 6 that I'm looking for. Page 4, and actually paragraph 4 is what I'm – and this is an email from – perhaps, Madam Clerk – I apologize, you can scroll back to the beginning. I'll set it up a bit.

This is, as you can see, an email from Thomas Clift, who we've – the passage just read was one of the board members – to Robert Thompson who, at this time, was I believe the Clerk of the Executive Council – but he may have occupied another senior position in government – and it's dated 2012. And perhaps you can scroll down to subparagraph 4, if I have the right exhibit – yeah.

The absence of – and I'm gonna read paragraph 4, although it's there in front of us. "The absence of Board level expertise in a number of specialized areas deemed to be 'of significance' to NL Hydro and the Energy Corporation of Newfoundland. Notable areas where board level expertise would be beneficial include: large-scale or mega-project project management; specialized hydro generation engineering; large-scale environmental project management; and legal affairs (including Labour Relations), all of which will increase in importance as a number of the large-scale development projects (presently under development or in the final negotiation stages) at Newfoundland and Labrador Hydro and the Energy Corporation of Newfoundland come to fruition."

There's something about the dating of this. I think this actually dates from 2008, if I'm not mistaken, but we'll sort that out in a second. So, what he is essentially complaining of there or noting is the absence of these certain areas of expertise from the board and this, of course, is the board of an energy corporation. What do you have to say about the absence of this kind of expertise from a board of this sort?

DR. HOLBURN: So, ideally, a board would be comprised of individuals with the expertise and capabilities that are needed by the corporation, given its project portfolio or particular needs at that point in time. It's not always feasible to recruit very specialized types of expertise. It depends on who's available, who's applying. And the more specialized you become, then the harder it's going to be to find that ideal candidate, which is one of the reasons why boards of directors may wish to retain external experts and to hire them on a contractual basis.

It's certainly good to have that specification and the identification of the skills that are needed, but it may not always be possible to actually find those individuals.

MR. BUDDEN: Sure. And I assume that these difficulties in finding these specialized skills obviously wouldn't be unique to the board of Nalcor. I would assume this is a general problem.

DR. HOLBURN: Correct, Sir.

MR. BUDDEN: Yeah.

In your opinion, would the difficulty in filling these specialized niches be exacerbated by the very low compensation scheme?

DR. HOLBURN: I think there are going to be a number of factors that are gonna make this challenging.

It's a relatively small province; compensation is certainly going to be one factor that will build into that as well, and the expectations of the workload.

MR. BUDDEN: Sure.

Perhaps, Madam Clerk, we can call up Exhibit 00395.

This is a relatively short – and I'll read it, at least the parts I'm interested in – it's a – yes, what this appears to be, and perhaps you can scroll down a little farther – the earlier email I think is one that was from 2008, and this is – now he's – we're now into 2012.

And again, Mr. Clift is writing to Mr. Thompson, and: "Hi Robert, I wonder if you might have a few minutes for a chat about some Board Governance issues that we have at NALCOR?

"I can drop over for a face to face meeting, or we can deal with this over the phone if you prefer.

"In order to get you up to speed and also give you a chance to formulate a response, I think … it is fair to say that our primary concerns are two-fold: 1) In spite of the numerous requests that we have made of the previous and current administration, we are still really short of Board members. If you include Ed Martin, we have 5 members, without him we are relying on 4 individuals (each of whom are quite busy in their professional lives), to fill the various Board committees and at the same time provide governance on what is arguably the most important file/project which this government has embarked upon for quite some time.

"Our Board would benefit greatly from the addition of individuals with large-scale engineering project experience, international project experience, labour relations experience and additional finance or accounting experience. In addition, we would benefit greatly from the addition of an individual with connections to Labrador. At the present time (in all cases) our committees are minimally stocked – as is our Board. I recall a situation recently where I had to get up at 4:30 a.m., while travelling (in California) and attend a 5 hour meeting (via phone), so that the meeting could proceed. Others members can relay similar experiences."

So again this is perhaps very similar to what you just presented with the additional anecdotal information, but what concerns would this leave you with, as an expert in corporate governance?

DR. HOLBURN: I think this would lead to some questions as to the ability of a board to effectively challenge management, and act in a capacity of providing informed expert oversight and providing that forum for sober second thought.

MR. BUDDEN: Like to turn to page 32 of the transcript, just briefly refer to, again, this is Mr. Clift; and there's a very brief passage. Ms. O'Brien was questioning Mr. Clift again, and it's on the right-hand side, she says –

THE COMMISSIONER: What page?

MR. BUDDEN: Page 32, Mr. Commissioner.

THE COMMISSIONER: Thank you.

MR. BUDDEN: And Ms. O'Brien asks of Mr. Clift halfway down the right-hand side – I'm only picking part of her question, 'cause the first part's irrelevant: "Did you ever get to the point while you were on the board of directors where you were getting appointments that fit the criteria that you were looking for?" And Mr. Clift said, "No."
So Mr. Clift stayed on the board through 2016. So we've covered, I think, this somewhat already, but just to tie it all in together, what we have here through Mr. Clift's evidence and the evidence of other people, is, I would suggest, a chronic failure of the shareholder to appoint enough members and enough quality members. And just, I guess, by way of tying it all together, what impacts – what negative government impacts might that lead to?

DR. HOLBURN: In the case where you have a board which is small, which has less experienced members, or where there is a considerable burden being put on the members to expend a large amount of their time, there's going to be the risk that the board does not effectively discharge its duties of testing, challenging and constructively criticizing management.

Which means then it puts a greater – lends greater power towards management in driving the direction of the organization. So when management is making proposals or recommendations it becomes harder for a small board that doesn't have the capacity to test the assumptions, to test the rationale, to ask for more information, and hence to determine whether the recommendations of the management are actually in the interests of the corporation.

MR. BUDDEN: Thank you, Dr. Holburn. I have no further questions.

THE COMMISSIONER: Thank you.

Now, it's 4:25. I'm not sure whether we should continue on, because – Dr. Holburn go on – but I can indicate I'm going to have a few questions for this witness as we go forward. So it's not going to take five minutes. So I'm wondering what the preference of the group would be.

Will I go to, for instance, Edmund Martin now and let – then end after him or will – do we want to press on, or how do you want to – how would you prefer to deal with this? What's our situation tomorrow, by the way, for Mr. Davis getting in and –

MR. LEARMONTH: It's expected that he'll be here ready to testify later on tomorrow morning if we wanted to adjourn now or at 2 o'clock at the latest. But he –

THE COMMISSIONER: How long do we expect to be with Mr. Davis?

MR. LEARMONTH: My examination of Mr. Davis will probably take an hour.

THE COMMISSIONER: Okay.

MR. LEARMONTH: Perhaps a little longer but not too much.

THE COMMISSIONER: Are you scheduled to stay here tonight –?

DR. HOLBURN: Yes I am.

THE COMMISSIONER: Okay.

MR. T. WILLIAMS: The only thing I would mention, Mr. Commissioner, is when Mr. Davis came up there was indications that he would only be here for the day, because I know he is booked to return tomorrow. I don't know if that influences anything but I know he does have a flight out for – he'd be here for the day – full afternoon but I think he has a flight going back tomorrow evening.

THE COMMISSIONER: Okay. Just –

MR. LEARMONTH: But we can –we can always adjust it so that if you do decide to adjourn now and then we, you know, finish Dr. Holburn tomorrow morning, there should be plenty of time for Mr. Davis and if so we – if it looks like we're going to be short we could take an abbreviated lunch break.

THE COMMISSIONER: Okay.

Let me just get a feel for those – I'm not going ask you individually but if you just raise your hands – those who intend to ask questions of Dr. Holburn tomorrow morning, could you just give me an indication?

Yeah, okay I think what we're going to do is then set this over 'til tomorrow morning, and we'll start at 9:30 tomorrow morning with you at that stage.

All right. So we're adjourned then 'til tomorrow morning at 9:30.

CLERK: All rise.

This Commission of Inquiry is concluded for the day.