



## COMMISSION OF INQUIRY RESPECTING THE MUSKRAT FALLS PROJECT

---

Transcript | Phase 2

Volume 40

---

*Commissioner: Honourable Justice Richard LeBlanc*

Thursday

23 May 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.

All right, Mr. Collins.

**MR. COLLINS:** Commissioner, before we begin, could I seek an order to enter Exhibits: P-03734 to P-03744, P-03782, P-03791 to P-03808 and P-03820 to P-03822?

**THE COMMISSIONER:** All right, those will be marked as entered.

**MR. COLLINS:** The next witness is Mr. Lance Clarke.

**THE COMMISSIONER:** Okay.

Mr. Clarke, wish to be sworn or affirmed?

**MR. CLARKE:** Sworn, I guess.

**THE COMMISSIONER:** All right.

If you could stand up, Sir, please, if you would –

**MR. CLARKE:** Okay.

**THE COMMISSIONER:** – and just take the Bible in your right hand.

**CLERK:** Do you swear that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth, so help you God?

**MR. CLARKE:** I do.

**CLERK:** Please state your name.

**MR. CLARKE:** Lance Clarke.

**CLERK:** Thank you.

**THE COMMISSIONER:** Okay, just be seated there, Sir.

And the microphone is in front of you; I notice you're soft spoken, so just speak up the best you can and if we have a problem with the mic I'm sure the technical people will be out in any event.

**MR. CLARKE:** Okay.

**THE COMMISSIONER:** Okay, thank you.

**MR. CLARKE:** I'll try my best. I'll try to speak up now that you said that.

**THE COMMISSIONER:** Thank you very much.

**MR. CLARKE:** Okay.

**THE COMMISSIONER:** Mr. Collins.

**MR. COLLINS:** Mr. Clarke, could you provide a brief overview of your education and experience?

**MR. CLARKE:** Okay.

I graduated from Memorial in 1994 with a Bachelor of Commerce. Subsequently, I started work with the provincial government where I was for about four years, I believe. I worked in the Government Purchasing Agency there, so I got involved with contracting and procurement, so I understand the public procurement aspects. At the back end of that I was assigned over to the *Matthew* project, which was in a bit of turmoil at the time. I was sent in to clean things up in there from a procedural and commercial perspective, which I did do and finished that project out.

When that was done I moved on and went to work on the Terra Nova project where I was a part of the supply chain and commercial team in the construction aspect, where I had procured the turbines for the FPSO, cranes, electrical systems, a bunch of different things. I was a senior part of that team. In '99, I believe it was, I went over to the Hibernia project where I was a part of a combined operating entity exercise – which was a joint venture between Petro-Canada and Mobil at the time, so it was trying to put the

Terra Nova and Hibernia projects together – where I was involved, again, in the commercial aspects and the transition into operations for those projects on various contracting and services that were required.

That – Exxon took over Mobil, that got changed, and I had a choice to stay with Mobil or Exxon, at the time, or go to Petro-Canada, which I did, where I was a part of the operations transition and the completion of the Terra Nova project. Again, commercial aspects predominantly – again, the turbines I was heavily involved with and the operational readiness for that project. I was there until – I can't remember the year but I was seconded – I'm thinking 2002, I may be wrong – to White Rose.

So still with Petro-Canada, I was seconded over to White Rose with Husky where I became the contracts lead or manager or commercial manager, essentially, for that project. So I was responsible for the supply chain of the large construction contracts, which involved subsea cables, which of course Terra Nova did as well; subsea pipeline work; purchase of an FPSO vessel out of Korea; topsides, which was done in Marystown with Kiewit – so very large contracts. And I was the lead on that with the team as a part of that management team.

When that project was about to go out for operations readiness, I was seconded again to Chevron where I was assigned to Hebron and I was there for about a year in Calgary. I wrote the contracting execution strategy for that project, which of course involved a huge amount of concrete, as everyone knows now, from the Hebron project. Exxon essentially adapted that execution model and executed it. That project got shelved by Chevron because of issues with the Benefits Agreement with the province. And I went back to Petro-Canada and spent time in Newfoundland on Terra Nova turnaround advising. And I spent about – I'm going to say a year or a little less in Calgary on Fort Hills, which was an oil sands project. And I set up the contracting approaches and the execution models with that team to execute what would be essentially a couple of refineries and the massive civil aspects that were involved with an oil sands project, which is very different than an offshore project.

And, at that point, I was at a career point to make a decision and I had to choose between – Petro-Canada wanted me to go to Syria and be a deputy project manager in Syria on a gas project, al-Shaer. And – or they asked me to stay in Calgary and actually set up a corporate-wide capital projects division because they were getting into much larger projects in the oil sands and other aspects, and they wanted to set up a full capital projects division around that point in time.

I didn't take either one, for personal reasons and decided to seek other opportunities. And that's when I ended up applying for and ended up on the Lower Churchill Project.

**MR. COLLINS:** So how did you come to join the Lower Churchill Project?

**MR. CLARKE:** I was looking around for different opportunities, and I knew there were different projects and the Lower Churchill was a potential. And there was a job – I'm going to call it an ad. I applied on – had an interview with their HR folks and that, and then got invited back to go do a presentation to a group of senior people at Newfoundland Hydro at the time, and I was offered a job.

**MR. COLLINS:** Do you remember who you interviewed with?

**MR. CLARKE:** The interview was – I don't remember the – in the HR. I remember the presentations and – presentation, I should say. I remember Derrick Sturge was there, Jim Keating was there, Gilbert, I'm pretty certain was there and I believe Paul Harrington was there.

**MR. COLLINS:** Would you have known Mr. Harrington or Mr. Keating before?

**MR. CLARKE:** I knew of Jim, yes – knew of him; obviously, a very small town, oil and gas, so I knew of Jim. And, yes, I had worked with Paul on White Rose.

**MR. COLLINS:** White Rose. Did you also work with him on Terra Nova?

**MR. CLARKE:** He was on Terra Nova. I never really worked with him; I wasn't a part of any

group with him. We had worked together on White Rose.

**MR. COLLINS:** And so what position were you hired on for?

**MR. CLARKE:** I believe the job ad was for business services manager, was the title –

**MR. COLLINS:** Yeah.

**MR. CLARKE:** – that they'd used.

**MR. COLLINS:** Yeah. And did that position evolve over time?

**MR. CLARKE:** When I went into it, yes, it evolved, which is not atypical on a project. You're going in early stages. You start to adjust and move the functions around to fit best through the different phases.

**MR. COLLINS:** What were your responsibilities in, particularly, during the sort of 2012 to – period – 2012 until when you left?

**MR. CLARKE:** 2012 until when I left?

**MR. COLLINS:** Yeah.

**MR. CLARKE:** The earlier parts of that, I – at the very early stages I had management responsibility for supply chain commercial; I set up document control; IT – set up the IT team systems; the real property management which is property acquisition, essentially, which for a project like Lower Churchill is very important; and labour relations, early stages which I handed over after, that was to get – help get the deals in place and make sure they fit the commercial contracting strategy; and HR – set up HR. That was the main functions I would have had up to the transition – transition started as the project grew. And I don't remember the exact dates, but a lot of those functions I passed off to others.

And by the time we got into, I'll say, 2015, I was down to the commercial aspects of the project because we were in – heavy into construction. So, at that point, it was very typical – that becomes a very focal point. And I had the IS/IT side left and the real property management, because they were running very smoothly and they weren't a big draw on my

time. The – I had passed the document control over, I don't remember at what point in time. That was with quality assurance which is very typical on the projects.

So that went over to David Green sometime before. And I had passed over what I deemed to be the people aspects of the project as well. I can't remember the exact timeline but it was before 2015. So the LRR, the HR – that had been passed over. And the industrial benefits – I forgot that one at the earlier stage, as well, the industrial benefits aspects of the project. So all those people pieces, I had transitioned that over earlier.

**MR. COLLINS:** And my understanding is that you were working – were you an employee of Nalcor's?

**MR. CLARKE:** No.

**MR. COLLINS:** You were working through a company, is –

**MR. CLARKE:** Yeah, I was a consultant.

**MR. COLLINS:** Commercial project services?

**MR. CLARKE:** Yes.

**MR. COLLINS:** So if we go to tab 2, volume 22, we see, I believe, a – one of the versions of your contract.

**MR. SIMMONS:** Exhibit number?

**THE COMMISSIONER:** Sorry, tab –

**MR. COLLINS:** So it's Exhibit 03821 – P-03821.

**MR. CLARKE:** Which binder?

**MR. COLLINS:** It's volume 2 and tab 22.

Starting on page 2 –

**MR. CLARKE:** Twenty-two? Okay.

**MR. COLLINS:** Starting on page 2 we see the contract.

**MR. CLARKE:** Okay.

**MR. COLLINS:** This indicates that your day rate at this point was \$1,500 a day, about.

**MR. CLARKE:** Okay. Yeah.

**MR. COLLINS:** That's about right?

**MR. CLARKE:** Yeah, that's what it says it was. Yes.

**MR. COLLINS:** Who else on the Muskrat Falls Project worked on the Terra Nova Project with Petro-Canada?

**MR. CLARKE:** Who else on the Muskrat Falls Project worked on the Terra Nova Project –

**MR. COLLINS:** Yeah.

**MR. CLARKE:** – with Petro-Canada? There was a lot of people. All of the projects in Newfoundland have very similar people. Scott O'Brien was there, Ron Power.

**MR. COLLINS:** Ed Martin.

**MR. CLARKE:** Ed Martin was a part of Petro-Canada.

**MR. COLLINS:** Jason Kean.

**MR. CLARKE:** Yes, Jason – there's a very extensive list that would've went on it.

**MR. COLLINS:** Darren DeBourke.

**MR. CLARKE:** The same answer would apply to people on Hibernia, in many cases, or White Rose. Yeah.

**MR. COLLINS:** So you don't think it's remarkable that so many of the senior people on the Muskrat Falls Project came not just from Terra Nova, but from the Petro-Canada team (inaudible) on Terra Nova.

**MR. CLARKE:** No, I don't. The industry is small in Newfoundland.

I mean, big project experience is what people needed, so I don't – and at the time, when we were looking for people in the early stages, Petro-Canada was going through a transition and

then, shortly after that, Suncor came in and was doing the takeover.

**MR. COLLINS:** Mm-hmm.

**MR. CLARKE:** And so a lot of people were leaving and it was a very hot market, difficult to get people. Those people were available. It makes sense.

**MR. COLLINS:** Thank you.

What was your role in negotiating the collective agreements?

**MR. CLARKE:** I wasn't directly into the negotiations. What I did was I put a team together for that, which was David Clark and Catherine Rowsell, and they put a support team around them.

So I brought those folks in and looked strategically at: How would this tie to our potential contracting approach? And what are the types of work that we're looking at doing on the project and what are our options and opportunities from a labour – model perspective. So more of that strategic-management-set-it-up structure.

**MR. COLLINS:** So, you weren't the front end of the negotiations, but you – is it fair to say you were the senior – of the members of project team, this was more your responsibility than anyone else's?

**MR. CLARKE:** It was – from a management-team perspective, it was my responsibility to ensure that the collective agreements got in place.

**MR. COLLINS:** Yeah.

**MR. CLARKE:** Yes.

**MR. COLLINS:** I believe if we look at the collective agreements on – for at least two of them, yours is the only signature on behalf of the employers' group. Would that be –?

**MR. CLARKE:** Yes, because the employers' association was set up and structured in a way so that the agreements would get signed off, and

the way that was structured was that – so that my signature would go on it.

**MR. COLLINS:** Why are there three separate collective agreements for the project?

**MR. CLARKE:** So, that was done strategically. That involved a lot of research and effort and consideration that would've started with analysis that we had asked Morgan Cooper to do. I don't remember the timing, but it was very early in the stages – to look at what our potential opportunities were and how the labour legislation applied.

And then as David Clark came in, we came continued with that effort and did an extensive amount of benchmarking to add to the work that Morgan was doing. That benchmarking was then taken and we did stakeholder discussions with contractors, with Labour Relations Board, et cetera, to try and understand how – what our options were and how we could best get structure deals that were going to work for us.

So, out of that, it became very clear that we had different types of work than traditional megaprojects had been experiencing in Newfoundland in that we had some clearing work with a lot of trees and that around the reservoir. And we also had a situation where we had linear project, not unlike a pipeline, that I would've been associated with, with Fort Hills, for example. Same concept with respect to the transmission work.

And, so, when we did benchmarking across the country and looked at the options and opportunities, it became clear and obvious to us that the best skill sets for those weren't necessarily all of the building trades. We were going to be better off having individual unions in a couple of those cases to get us the best skill sets and minimize any jurisdictional challenges that may occur with respect situations where you have multiple unions.

**MR. COLLINS:** So, the decision is essentially to have a single union collective agreement with the labourers for the reservoir clearing and a single union collective agreement with the electrical workers –

**MR. CLARKE:** The IBEW.

**MR. COLLINS:** – the linesmen for the transmission line.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And then a multi-union collective agreement for the Muskrat Falls generation site.

**MR. CLARKE:** A more traditional approach, yes, because the nature of work there involved more unions. It involved more skill sets, a lot more, so ...

**MR. COLLINS:** And similarly, why did you – why did Nalcor choose to negotiate with the building trades as opposed to some other (inaudible) for a non-union job?

**MR. CLARKE:** So, in Newfoundland, negotiating with anyone other than the building trades is the big challenge, just, you know, traditionally, and there are some different barriers to that. I'm not a labour lawyer so I can't exactly answer why they're there, but they're there. We did have discussions, obviously. At the time, I remember some within the Department of Natural Resources and others explaining what we wanted to try and do and that we wanted to be able to have the most flexibility possible. But it was very clear that dealing with – not dealing with the building trades or a member of the building trades would be very challenging.

The wall-to-wall approaches, like with the IBEW, we could get that under special project order. It was felt that if we tried to go outside of building trades for the Muskrat Falls piece of work – in a manner especially if we tried to go to the Unifors or somebody else – that you'd get a lot of different challenges, but you'd also have a very big uproar. And we weren't sure that the support was going to be there to enable us to do it.

**MR. COLLINS:** And why was it important to secure a special project order?

**MR. CLARKE:** That gives you the ability to negotiate no stoppage in work and some other preferences, I'll say, that you don't necessarily get under the CLRA agreements. There's a bunch of other legal type reasons for it but again

it's not – the details aren't my expertise. That's where I depended on David Clark and Catherine Rowsell to support.

**MR. COLLINS:** Absolutely.

One aspect of the collective agreement negotiations I'm interested in is the Newfoundland and Labrador benefits strategy. As I understand it, guaranteed priority hiring to qualified Labrador Innu, and then to qualified Labrador residents and then to qualified Newfoundland Island residents. How did the benefits strategy affect Nalcor's negotiating position?

**MR. CLARKE:** Well, that piece we had to dictate to the unions in the negotiations, obviously, so, you know, as much as you could, you'd tell them this is non-optional; it's a requirement on the project in order for this to occur. Naturally, you do get some push-back, and they did, so whether we had to give anything up for it, I can't answer the question. I don't know. But obviously it's something that would've been a part of the discussion that they didn't always approve of, let's put it that way. They'd prefer to have a selection of their members versus new people.

**MR. COLLINS:** And the longer your list of must-haves, the weaker your negotiating position? To some extent.

**MR. CLARKE:** That's – that applies to anything.

**MR. COLLINS:** And apart from that, does the benefits strategy – does that have any other costs for the project?

**MR. CLARKE:** I quite honestly don't remember the details of the benefits strategy. I remember going through and we were trying to keep it as simple as we possibly could. It was dictated to us. It's a strong word, I know, but it really was. I mean, we didn't really have a negotiating position. It's not like we were an oil company outside trying to come into the C-NLOPB and negotiate that. We were a Crown corporation who had to work a benefits strategy out with the Department of Natural Resources who owned the Crown corporation, so, you know.

**MR. COLLINS:** So, labour productivity on the Muskrat Falls generating site has been a significant focus in Phase 2. And at a high level, what were you hoping from the collective agreement to help secure labour productivity for the project? And what did it – how did that – how was – what you were hoping for, how does that compare to what you eventually got?

**MR. CLARKE:** So obviously, whenever you do a collective agreement, you're hoping that what the market's assessment of productivity is can be achieved or better. Clearly, the productivity on the site did not meet expectations with respect to the project estimate, nor with what a lot of the contractors wanted, so yeah.

**MR. COLLINS:** I mean, going into the collective agreement, do you recall – were there particular things you were hoping to see in the collective agreement to help boost productivity? And do you have an impression of how many of the things you were looking for you ended up securing?

**MR. CLARKE:** There was a list, yes, naturally. We had extensive benchmarking. Those documents exist within Nalcor's system, so there – some things off the top of my head, again, I won't – wouldn't remember them all for sure. Things like composite crewing, which is always a big vocal point for these agreements and is something the building trades has warmed up to slowly over the years, was something they're not always traditionally supportive of.

**MR. COLLINS:** Can you explain what composite crewing is?

**MR. CLARKE:** Sure.

So composite crewing – keep it as simplified and, again, not being the total expert in the thing, but – so, traditionally, building trades and union jurisdiction – I mean, goes back to, you know, 800 years – very defined what an individual, based on their skill set, is to do or allowed to do. And so it means that in certain types of work there are inefficiencies because people have to wait around.

A very simple one, I would put, is in an extreme case a carpenter has to have a labourer with him

in order to be able to do the work. So the carpenter has to draw the nails, but the labourer has to pick up the piece of two by four, okay, as the guy needs it. That's very simplistic and it's not how things always work.

In a composite crew situation, you would do your workups as to what your work packs were and what you need done, and we brought experts in to be able to do that. And based on that you would look at what a sort of an optimal crew size might need to be there, and you would say, yeah, in order to do this you need two carpenters, a labourer, an iron worker, whatever.

So you'd agree on a number from each union and then they go and they're told to go do the work. And in theory they – as long as you're able to do the work, you do the work so there's no waiting. So then if the carpenter is finished driving his nails and the two by four is right there, but the labourer is over helping another guy, he picks up the two by four and he does it himself. Again, a very simplistic example, others could explain it better I'm sure, but that's essentially what composite crewing is.

**MR. COLLINS:** Like – and so that's – that item, I believe, is something you did secure from the collective agreement?

**MR. CLARKE:** Yeah, there's language in there around that. Yes. Whether it was implemented by the contractors – and it comes down to them at the end of the day – we can only get the language in place, so ...

**MR. COLLINS:** Do you have any other sort of high-level memory of whether you were getting most of what you wanted, part of what you wanted?

**MR. CLARKE:** We got a lot of what we wanted. Whether we got everything exactly, I couldn't say to you, I don't believe so but we were very happy overall. At the end, I remember the presentations that were put together or done, explaining the core things we looked for and that we'd achieved them.

We took a slightly different approach to the negotiation in that we started by going taking a principle-based negotiation first. So we went in with all the core areas that we wanted to achieve

and what the goals were and we got the unions aligned on the principle and signed off on it.

And we were very pleased with the principles we got, and then the details were worked out later on. And, you know, there's puts and takes when you get into the details but, in general, we had what we were hoping for, relative, of course, to the benchmarks and what we thought was achievable.

**MR. COLLINS:** So, much of Nalcor's internal reasoning, leading up to the negotiation of the collective agreement, is understandably privileged. But if we go to P-00130 which is tab 2 in the first volume, this is the DG3 QRA.

And at page 307 we have a list of activities that negatively impact productivity on the left hand, and this is – it appears to be a list of specific labour issues that have caused problems in the past in the province. And on the – in the right-hand column we have the plan to address these. And I was hoping to go through a few of these which, Mr. Clarke, I understand you may not remember some of these details, but we'll see if we can just get a sense of how much of Nalcor's – of this part of Nalcor's risk list was sort of achieved.

So the first item is: Apprentice ratios for operating engineers. And the operating engineers historically had required one apprentice for each piece of operating equipment. It's not possible to utilize apprentices effectively with a ratio that high. Then it gets – so, "This has been a significant problem on Vale Mine Mill, Vale Long Harbour and is becoming a problem on Hebron." And the plan was to mitigate or eliminate that with, "Collective Bargaining Language."

And if we go to P-03739, which is the ultimate Muskrat Falls Collective Agreement – this is tab 10. And if we go to page 110 of this document, we see the rules on apprentices for the operating engineers. And if we scroll down a little, we see in section 5.0 that there's a ratio of not less than one apprentice for every three journey persons and not more than two apprentices for each journey person. So this provision is permissive relative to the factors you were looking at.



But then if we scroll down in Section 5.05, for a number of particular types of equipment there is a mandate that there be at least one apprentice. Or is this – sorry, this seems to have been a mixed success, Mr. Clarke. Does that seem like a fair assessment?

**MR. CLARKE:** I really can't speak to it. I –

**MR. COLLINS:** You can't speak to it.

**MR. CLARKE:** Sorry.

**MR. COLLINS:** Okay.

So we'll try a few more examples. The second one is the operating engineer's philosophy. Let's go back to P-00130, page 307.

**MR. CLARKE:** Okay.

**MR. COLLINS:** The operating engineers had a philosophy where one person is required one machine and works that machine only, regardless of whether it is fully utilized or operational. And the plan was to clarify that in the collective agreement and eliminate the Newfoundland and Labrador practice. And my – from my reading of the collective agreement, that doesn't appear to be addressed. Do you have any other memory?

**MR. CLARKE:** So this one man and one machine –

**MR. COLLINS:** Yeah.

**MR. CLARKE:** – yeah, we didn't – we didn't have that.

**MR. COLLINS:** So that didn't end up being –

**MR. CLARKE:** So whether – I don't know if the language specifically said we didn't have – this is not how we operated because I do specifically remember where there was a challenge once or twice, I remember hearing about it and it was overcome, you know, by the contractor. They said no, no, we're not operating that way.

So as for language specifically in the agreement, I'd have to refer to others. Sorry. Because this is

seven years ago, too, and I put this aside quickly after.

Apologies, I don't know.

**MR. COLLINS:** This is the value of having witnesses.

Thank you, Mr. Clarke.

Offsite maintenance, the third point: "OEs should take the position there's a practice in Newfoundland that maintenance cannot be performed offsite on a major project without OE approval." And, again, the plan is to address that in collective – in the collective agreement. And my understanding is that this wasn't – this also wasn't specifically addressed in the collective agreements. Do you have any –?

**MR. CLARKE:** No, I can't answer.

**MR. COLLINS:** You can't – you were not aware of this.

**MR. CLARKE:** Sorry.

**MR. COLLINS:** That's fine.

The fourth point –

**MR. CLARKE:** I know the garages and maintenance facilities in Goose Bay were very busy with equipment from Muskrat Falls so that's off-site.

**MR. COLLINS:** Absolutely.

**MR. CLARKE:** That's all I know.

**MR. COLLINS:** But how that happened you don't know.

**MR. CLARKE:** I don't know. I'm sorry.

**MR. COLLINS:** Yeah.

"Non-working foreman" – The RDC have pushed the envelope claiming that foremen should not work on major projects which makes sense for large crews but not ... small crews." And my understanding is you did secure language in the collective agreement to allow the use of non-working foremen?

Do you – you don't recall that?

**MR. CLARKE:** In the back of my mind that sounds correctly but I – sorry, I haven't looked at this or been into collective agreements again for seven years and I've been away from the project for a year and a half. I don't – I don't remember. Apologies; this wasn't my focus.

**MR. COLLINS:** We can clarify that from the documents.

The fifth point: "General Foremen to Foremen 3 to 1 Ratio – This causes significant amounts of non-utilization of supervision."

Do you know what that means Mr. Clarke?

**MR. CLARKE:** It's referring to inefficiency.

**MR. COLLINS:** If we go to P-03739, at page 14, and if we scroll down a little to "7.08 a) iv)," we'll see: "the average ratio of forepersons and working forepersons to general forepersons shall be 3:1 (with the general forepersons having an average of one (1) working foreperson per general foreperson)."

Does that seem to be the same ratio that's being referred to in ...?

**MR. CLARKE:** It appears to be, but again –

**MR. COLLINS:** You can't (inaudible).

**MR. CLARKE:** I don't know what to tell you, you're – I know you're gonna ask me about all of these and I have the same answer, I don't – I wasn't into the detail, I don't recall this; sorry.

**MR. COLLINS:** That – it's good.

Commissioner, we can address the rest of these, I believe, on a documentary basis alone. The point, to a significant extent, is these two pages of P-00130 contain a list of things Nalcor was hoping to achieve from the collective agreement, some of which – some of which were achieved and some of which weren't.

Is that fair, Mr. Clarke?

**MR. CLARKE:** It appears so, from what you're showing, yes.

**MR. COLLINS:** And so –

**MR. CLARKE:** But, again, there's other details down into the details of the collective agreement; so that I can't speak to. I think you'd need to ask others and they would be able to explain it much better about what was achieved or not.

**MR. COLLINS:** There is a – there's an important point underlying this, though, in that labour productivity on the Muskrat Falls site worked out the way it did, and to some extent different contractor practices in the future could secure better productivity. And different background factors could help lead to better productivity in the future. But it is also possible perhaps that a different collective agreement could also boost labour productivity in the future.

So whether this is the best collective agreement possible from a productivity standpoint, or whether more could be achieved in the future is perhaps a significant issue here.

**MR. CLARKE:** There's always more that can be achieved.

**MR. COLLINS:** Yeah.

**MR. CLARKE:** That's just a fact this is all relative to what the market has and what the situation is and what you can get in your negotiation. So, –

**MR. COLLINS:** In general, the collective agreement – it's in the – Nalcor achieved some of the things it was hoping for to boost productivity, but really not everything.

**MR. CLARKE:** I would say that's fair, yeah, you know, 'cause it's almost impossible to get everything.

**MR. COLLINS:** And, Nalcor was hoping to have – to get language to avoid the productivity problems that had occurred in Hebron and Long Harbour. And there's a limit to which – you got that.

**MR. CLARKE:** We had targets and, yeah – and so some things were achieved and some weren't. The general feedback from the construction

community was that the agreements were good and that's the feedback that I had.

**MR. COLLINS:** Good relative again to the other agreements –

**MR. CLARKE:** Yes.

**MR. COLLINS:** – and projects that had also had productivity challenges.

**MR. CLARKE:** Yeah, not perfection.

**MR. COLLINS:** Yeah.

**MR. CLARKE:** No one is gonna achieve perfection, obviously

**MR. COLLINS:** So moving to LIL, one issue we've heard something about is the question, why did Nalcor issue such large packages? And particularly for – for example, the CH0007 contract. Issuing a package of that size possibly limits the number of companies that can bid on the package, which is competition. And also a package of that size the – if something goes wrong with the contractor, it's hard to find – to move the work around; there's only one contractor doing it.

So, I'd like to ask you, why did Nalcor choose to issue only one package for CH0007 and why in general did Nalcor pursue a strategy of issuing large packages?

**MR. CLARKE:** So when you're – step back a little bit first; when you're going to issue contracting packages there's multiple considerations that have to be put in place.

As a part of the presentations that we did for Grant Thornton, there's a list of a lot of the indicative considerations that would go into your packaging for your project, okay? And every package is different. So, everything from market conditions in terms of how the work is typically done, to the overarching size of the owner's team, to the EPCM or other type of approach and the quality of those teams. All of those things come into play.

Whether the project is financed or not has an impact, 'cause the financing community has a strong propensity and preference to minimize

interfaces. So they want to see larger packages with larger companies to – that are known to them – known entities. It gives them comfort from a delivery perspective. Not necessarily something I always agree with, but it's what the finance market wants.

So, we have to take all of these different factors – and I've only touched on a couple – and you have to consider all of those when you're doing your packaging strategies. It's not – there's no one size fits all. Absolutely not, and there seems to be a bit of a misnomer with people that there's a right way to do a contract period. Well, there's not. If there was, people like me wouldn't exist, because there's multitudes of ways.

So, with respect to the Astaldi contract, specifically, that package – the powerhouse – you couldn't really split that up, okay? It's a huge amount of concrete, but you couldn't split that up. You couldn't say, okay, one company – you start the concrete, and then we'll stop you somewhere along the way and get someone else to finish it, okay? The – it was a very vertical, as we'd call it, type piece of work, where it has to start from the bottom up.

As well, from an efficiency perspective, you wouldn't want to have multiple contractors climbing around, even if you said: okay, we'll split the (inaudible) in half. It doesn't make sense from a design perspective. It doesn't make sense from interfaces. It doesn't make sense from – in terms of congestion on the site, contractors getting in each other's way. It doesn't fit. You would've required twice as much infrastructure, batch plants, all these other things. That contract did not fit itself to be split-up. It just didn't make sense.

**MR. COLLINS:** My understanding is that Salini proposed to subcontract the whole spillway. And is there a difference between hiring – putting out a single package, with a package that's so big that the general contractor subcontracts off the whole spillway and putting out two packages, one for the powerhouse and one for the spillway?

**MR. CLARKE:** So, subcontracting is a natural part of almost all executions. Some companies decide that they're going to direct hire and do it

themselves; other companies subcontract portions or all, in some cases.

So the SNCs of the world, a lot of times, they subcontract if they were doing the actual construction, which they weren't in our case.

So their choice to subcontract that off, right, just would have meant that they were looking to have less direct hires. So that's – I can't answer the question why they would want to do that, maybe different risk attempts. But they would have understood that, they would have wanted the efficiencies of similar batch plants and all those sorts of things, I would assume.

**MR. COLLINS:** So splitting off the spillway –  
Mm-hmm.

**MR. CLARKE:** – would have been a small of piece of what that total contract would have been.

**MR. COLLINS:** If we go to tab 59, which is P-01683.

**MR. CLARKE:** Sorry, which binder?

**MR. COLLINS:** Binder 3.

**MR. CLARKE:** Binder 3.

**MR. COLLINS:** This is a report from R. W. Block Consulting, answering a number of questions about Nalcor's commercial and contracting strategy.

And on page 5, they reviewed the use of large construction contract packages. And it indicates: "Nalcor also indicated" – if we scroll down a little.

"Nalcor also indicated the large contracts strategy was stipulated as a preference of the three rating agencies ....

"Assuming Nalcor's indication the ratings agencies preferred a large contracts strategy," et cetera, "... the decision ... seems reasonable."

And then in a footnote at the bottom of the page, we see: This "... memorandum was amended to clarify that we were assuming the larger

contracts strategy was stipulated by the ratings agencies as Nalcor indicated in the ... documents, and ... we were not taking Nalcor's indication as a fact. We had to assume this, given" that we had not – "... have not been provided with" the "source documents from the ratings agencies to review which would allow us to independently verify that a larger contracts strategy as preferred by the ratings agencies."

Is this accurate, that the rating agencies preferred a large contract strategy?

**MR. CLARKE:** I can't specifically speak for the rating agencies. I know that the finance industry does. I know that for a fact.

**MR. COLLINS:** You know that for a fact. And –

**MR. CLARKE:** Yeah, absolutely.

**MR. COLLINS:** And –

**MR. CLARKE:** I'm going through it right now on another piece of work I'm doing.

**MR. COLLINS:** And do you know whether that – you've indicated before, but that was a factor in –

**MR. CLARKE:** It was one of the considerations, yes. One of them.

**MR. COLLINS:** Not the only one?

**MR. CLARKE:** No, there – like I said, there's a full list in the Grant Thornton presentation, that was there.

**MR. COLLINS:** If –

**MR. CLARKE:** Every package is different.

**MR. COLLINS:** So, another packaging question. My understanding – or contract strategy question – my understanding is that Nalcor ended up seeking lump-sum or unit-price contracts for most of the major contracts. Is that right?

**MR. CLARKE:** For a lot of them. Yes.

**MR. COLLINS:** Why?

**MR. CLARKE:** Again, each package has to be looked at on its own merits, and you have to consider what the market's desire is. You have to consider what the risk exposure is in terms of change and whether there is going to be a lot of change. The design for Muskrat Falls was well advanced when we were ready to award most of the contracts, including the Astaldi contract.

So, that lends itself to better definition, which lends itself to being able to get more firm pricing, which we knew would also be preferred by anyone who was financing or supporting the project. And we also knew that, in general, would be more understood and accepted given that we were doing this on behalf of a Crown corp.

That doesn't mean it's the only strategy we took.

**MR. COLLINS:** Is there an additional capital cost associated with seeking lump-sum or unit-price contracts?

**MR. CLARKE:** It depends on the market. It really does. It depends on the market and the degree of definition you have, but naturally, yes, people are going to put – build in risk premiums for hard-dollar pricing. So you had to decide what's the preference? Are we going to get the hard-dollar pricing and manage that? Or are we going to take all of the exposure on every contract for the project for delivery, which – I wouldn't suggest that that's a sensible path to take either. A mixed strategy as I refer to it as, as IPA talks about, is generally, for megaprojects, the best approach, and we did have a mixed strategy overall. We had some very successful contracts that were not lump sum, unit price as well.

**MR. COLLINS:** So, if we go to P-03822.

**MR. CLARKE:** Sorry?

**MR. COLLINS:** P-03822, which is volume 3, tab 43. We see some correspondence between you and Keith Dodson, and this is from 2016. And this is around the time when Nalcor was considering seeking a replacement contractor for Astaldi.

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** And if we go to page 2 of this correspondence, we see Mr. Dodson say: "Your team and the players are perfect for managing contractor at risk contracting plans. They are not in my and more importantly Dick's opinion capable of managing owner at risk contracting which is where you will be. In simplicity your team is not capable of managing contractors like SNCLavalin or Kiewit in a reimbursable setting."

**THE COMMISSIONER:** Okay. Can you show me where you are?

**MR. COLLINS:** I apologize. It's – sorry, this is in the second – it's in the second – it's in the middle of the screen here. It's in this paragraph, "You are going to have to do your own political and legal ...."

**THE COMMISSIONER:** Okay. Thank you.

**MR. COLLINS:** And it begins, "Your team and the players are perfect for managing ...."

**THE COMMISSIONER:** Okay. Thank you.

**MR. COLLINS:** Why – what – first, what's the difference between contractor-at-risk and owner-at-risk contracts?

**MR. CLARKE:** So, I interpret that in a couple of different ways. One is, yeah, where you have more hard-dollar-type agreements, okay? And, how – and the contractor takes more of the execution risk on, versus, as Keith references, reimbursable fully. If everything is done in reimbursable manners, it requires a different set-up.

As well, I interpret, given the situation and the context of it being about switching out to – possibly switching Astaldi out, is there was some contemplation about whether we would get right into the middle of the work itself, okay, and be a part of the construction. And that was something that didn't get a whole lot of conversation because it was very clear that we were not structured to do so. We were not structured to be constructors.

So, I interpret that in two – in those two ways. With respect to the reimbursable aspect as a whole, for the whole project, I would agree with Keith and what he's referring to. It was not about whether the individuals or there's an ability in the people themselves; we weren't set up to have the systems, okay? And you need a lot more people if you're going to have a lot of reimbursable-type agreements. You need a lot more people. You need different types of systems. The controls are different. It is different.

We can handle some of that, and we proved that, because the North Spur was done under a reimbursable basis and was extremely successful. So, we actually did manage that in that way, and it was done very well.

But as a whole, we weren't set up and structured to be able to manage all of our contracts in that manner. And that's how I would interpret that.

**MR. COLLINS:** So, why is it different? And why do you need a different team structure to negotiate – to administer a reimbursable contract than you'd need to administer a lump-sum contract?

**MR. CLARKE:** So, in a reimbursable setting, you're in a situation where the buildings are all coming in, where it's extreme detail. It's not a situation of, well, here's my milestone or here's my labour billing, here's the actual cost piece. Everything's coming in extreme detail.

The controls and the controls teams that you need around that are far more extensive. And it's not a situation where you're going to be subjected to big claims and that, okay? Because the contractor's essentially covered off in their cost, so the risk exposure is different, it's in the real time execution of the job because the contractor doesn't necessarily own the full risk of that.

And it doesn't mean that you can't manage some contracts like that. I mean, you're not set up to manage a full project in that manner. When – and we've done – we did both. I've done both, we negotiated them, but –

**MR. COLLINS:** So as I understand, and I believe Mr. Mulcahy testified earlier, that when you have a reimbursable contract, it's important that you monitor what the contractor's doing because if they do any extra work, anything that's not necessary, you end up paying as the owner. So you need to really scrutinize the contractor's means and methods.

**MR. CLARKE:** More so, yes.

**MR. COLLINS:** Whereas if the contractor's at risk, the contractor's not gonna do anything extra because it's their money.

**MR. CLARKE:** That's correct. What your focus is, is on what the final work product is and the quality of the final work product is gonna come out. And it's actually very important for you not to interfere with them and get in and essentially take over the job, as we call it, because then it means you're letting them off the hook for the hard-dollar price and the liability that they agreed to take on.

**MR. COLLINS:** This is suggesting that the composition and structure of Nalcor's owner team was limiting, to some extent, the kinds of contracts and relationships that it could negotiate with contractors.

**MR. CLARKE:** No, that's not what it says. What it says is at the time that we were gonna (inaudible) the Astaldi switch-out, because a lot of our contracts were hard dollar, okay, and unit rates, we were structured to manage that type of contract more so than the reimbursable. Doesn't mean you couldn't, it's just we're structured to manage the project in the way we had set it up. Now if someone told us earlier you were gonna do this reimbursable, we would've structured slightly differently.

**MR. COLLINS:** Twice in this paragraph Mr. Dodson says – he says: “Your team and the players are perfect for managing contractor at risk contracting plans.” Later he says: “Alternately you are going to have to make significant changes in your team.”

It's not simply the organization of the team he's describing, or the organization of Nalcor's processes but also the team itself. Do you not see that?

**MR. CLARKE:** I see the words, I don't agree with it.

**MR. COLLINS:** You don't agree with that. 'Cause –

**MR. CLARKE:** No. Because all the people on our team had experience in multiple types of arrangements and structures and where we were. So, I don't understand the comment that he made, sorry.

**MR. COLLINS:** To carefully scrutinize what an experienced heavy civil contractor like, as they mentioned here, SNC-Lavalin or Kiewit, to carefully scrutinize their construction choices would require a significant amount of heavy, specific heavy civil construction experience.

**MR. CLARKE:** We would have to supplement the group we had, yeah. You would, you have to bring in more people, as I said, and you have to change structure, processes, and you would have to supplement, there is no question. But as to whether the people we already had could do the job – they could, but they couldn't do it alone.

**MR. COLLINS:** The people you had plus other people could perhaps do the job –

**MR. CLARKE:** Yeah. Yeah –

**MR. COLLINS:** The –

**MR. CLARKE:** – if they are trusted.

**MR. COLLINS:** Very good. What was your role in the Astaldi bid evaluation?

**MR. CLARKE:** I was on the steering – I was at the steering level, so the recommendation would have come to a group of us, including me.

**MR. COLLINS:** Why, at a high level, was Astaldi chosen instead of the other contractors?

**MR. CLARKE:** So, at the highest level, they had the best commercial and technical offer. I mean, it's just that – it's simplistic.

**MR. CLARKE:** 'Cause there's – there's a narrative that Nalcor should've known that Astaldi was bound to run into troubles, because they were an Italian company, no North

American experience, not much cold-climate experience. And, how do you reconcile that narrative with what you are seeing there, which is that they had the best technical score?

**MR. CLARKE:** I think the narrative is hindsight and hindsight bias, quite obviously. So the decision was made based on the bet information that would have been available at the time. The factors that you referenced were considered. So, there was a pre-qualification that was done, SNC came up with the company list. There was extensive companies, I don't remember the numbers. Astaldi was listed with ENR in the top ten globally from a hydropower construction perspective referencing dams and powerhouse's construction. So, they are a 100-year-old-plus organization working all over the world so whether they can do big civil construction, was not a question.

In terms of their abilities within Canada, their – 'cause we did ask questions about all this stuff – their proposal included an approach that involved some extremely experienced Canadian team members from a construction perspective, construction management downward, superintendents and that. And, so, based on that and the submission they had put together and come in when the team had reviewed it, they obviously had a very good proposal put together and it was understood and believed that these folks could do it.

As well, we – to ensure, as we would for a contract this large, we did go and have some key people go and look at other Astaldi construction sites. We sent a couple of people to South America to – I believe was a hydro job they were working there. So again, challenging conditions in the mountains, these sorts of things. Cold is not the only challenging condition, okay, but these folks clearly understood that stuff. They – and, as I said, they had a Canadian construction contingent added in to what they were doing, so there was no reason to believe that they wouldn't be able to do it.

In terms of whether, you know, someone can come into a jurisdiction who hasn't been there before that – the megaproject construction industry is global, it is. And yes, there are challenges with it, but you always look for what those risks are, as we did, and saw the Canadian

folks and that they were gonna be able to handle this. So the fact that Astaldi could go and work in multiple countries around the world means they understood country risk, they understood the nuances, they understood how to react and relate to those things and how it applied to their systems.

Newfoundland alone, so the Norwegians came in and completed the Hibernia piece of work. Aker was involved in coming in and doing topsides here, so they come in out of Norway. Dragados is very successful in Canada, a Spanish company, have come in. Impregilo is now, actually, one of the companies, one of the predecessors of the company that is now morphing into Astaldi with Salini. Impregilo was heavily involved in working with Hydro-Québec. So, right now ACCIONA – I believe it's ACCIONA – is one of the largest contractors, is new to the country in BC, with BC Hydro.

So this is not a unique, uncommon thing. The rhetoric of saying that oh, you should've known 'cause these guys had never worked here before – sorry, we're not that special.

**MR. COLLINS:** And I believe if we go to P-01964, which is tab 14 in binder 1.

**MR. CLARKE:** Sorry, tab –

**MR. COLLINS:** Tab 14 in binder 1.

**MR. CLARKE:** Fourteen in binder 1.

**MR. COLLINS:** We can see at page 15 of this document.

**MR. CLARKE:** 14 – okay. Which page?

**MR. COLLINS:** We can see –

**MR. CLARKE:** Sorry?

**MR. COLLINS:** Page 15, it's on your screen. There's a nice chart which shows the scores of the four bidders based on their original bids. And, as you indicated, Astaldi has the highest commercial/benefits score.

**MR. CLARKE:** Okay.

**MR. COLLINS:** Astaldi's in pink.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** IKC is in yellow; Aecon in blue; Salini in purple; and the pink bar is highest for commercial and benefits, and for execution of the work. And for quality and risk management and labour and hiring strategy, would it be fair to say that there's not much difference between them?

**MR. CLARKE:** Yeah.

**MR. COLLINS:** Okay.

That – so, on page 14 if we turn to the previous page, we see something else that's interesting. These are the original bid prices that came in. So you see 1.7 billion – 1.76 for IKC; 1 billion for Astaldi; 1.5 for Aecon; and 1.1 for Salini.

Did you have any thoughts when these original bids came in about why the North American bidders, IKC and Aecon, were bidding so much higher than the European companies Astaldi and Salini?

**MR. CLARKE:** Yes, at the time, there was conversation around this. One of the reasons that SNC had recommended some international bidders was the fact that the Canadian market at the time – the North American market was seen to be very busy. And the – so because the market was hot, we wanted to make sure there was appropriate competition. So the sense was that the North American market – sorry, contractors were going to be more risk adverse, shall we say.

And they were going to be less hungry to come and get the business because they were busy, which means that they didn't necessarily have the full suite of people and teams that they would want and they would put in more of a risk premium. So that was a concern that we had. And so, when we saw the bids and the way they came in, that was a part of what explained that to us, from what we could see.

The other thing that gave us the comfort, which may not be what you are asking, but gave us the comfort as to Astaldi's cost, with Salini's as well, is the fact that our estimate was well below



what their bid was, so we truly felt comfortable that, yeah, you know what, we're good. These guys can do this. This is not a typical situation where the low bid is something way off the charts that you would know and feel it couldn't be done.

**MR. COLLINS:** And that is getting into my next area because there's a narrative we see, and we see it in Astaldi's later claim documents also, that Astaldi's bid was suspiciously low, that Astaldi's bid should've been a warning sign that they didn't understand the work properly. And that if you compare them to IKC and Aecon, the contractors with more North American experience, it's obvious that they've misjudged – this is the narrative – it's obvious that they misjudged –

**MR. CLARKE:** It's also part of the current arbitration.

**MR. COLLINS:** Exactly. This is a – so, this is an important narrative in a way, and – so you – what I understand you to be saying is that: Because Astaldi's bid may be lower than IKC's and Aecon's, but it's still much higher than the estimate.

**MR. CLARKE:** Right.

**MR. COLLINS:** And so, you had no – at the time, Nalcor had no doubt that the work you estimated could be done for \$800 million, could be done for \$1.1 billion.

**MR. CLARKE:** We had no doubt whatsoever at the time because there – and there was a few other reasons. As you say, the estimate was 30, 40 per cent less whatever the number was. The SNC estimators who have done that work, and this is civil, concrete, typical construction, had also estimated the project as a whole, of course, and the package that was awarded prior to that for bulk excavation was the same estimators. That bid came in on or under budget; done by the same estimators; same sort of productivity thing. So we had no reason to believe that they weren't going to be correct.

So when the market came in, we saw these prices, we're quite surprised by them, obviously. And it told us, though, with the difference between the two Italians and the two North

Americans who told us that our concerns about the hot market were correct, but we also felt very comfortable that they could do the work because of where the estimate was and what was there before. To the point that we actually asked Astaldi for a target price against the cap with upside, 'cause we said you're going to make a pile of money off of this. There's no way you can't do it. We want a target price, with upside to share, to which they agreed. And that was the belief. We truly believed that that was the situation that we were faced with.

**MR. COLLINS:** Why does it matter to the owner's team how creditworthy contractors are?

**MR. CLARKE:** You don't want a situation where the contractor is going to go out of business during your project, obviously. It's that simple. And if you have challenges, you want to make sure they're going to be able to handle it.

**MR. COLLINS:** And I understand one aspect of that is that an insolvent contractor might stop paying workers and then you end up with (inaudible) –

**MR. CLARKE:** An insolvent contractor is going to stop doing everything.

**MR. COLLINS:** And another issue is that a lot of these – especially if you have a lump sum or a unit price type contract or any sort of contract where the contractor is taking on risk, then the contractor's ability to bear that risk depends on their solvency. A guarantee from an insolvent contractor is worth nothing.

**MR. CLARKE:** Yeah, that would be correct, yes.

**MR. COLLINS:** And so, does the importance of the contractor's creditworthiness vary depending on the commercial terms of the contract?

**MR. CLARKE:** Yes, there's a variance, depending on the structure and what you are doing –

**MR. COLLINS:** And so depending –

**MR. CLARKE:** As well, it's more than that, so I hesitated – sorry, it's more than that; it is about the nature of work, okay?

**MR. COLLINS:** Absolutely.

**MR. CLARKE:** And whether you can find replacement contractors and, et cetera, so there is a lot more to it than that. That's just one factor.

**MR. COLLINS:** So if we go to the – back to P-01964, binder 1, tab 14, could still be open –

**MR. CLARKE:** Binder 1, tab 14.

**MR. COLLINS:** On page 7, we see Nalcor's creditworthiness analysis list and in the –

**MR. CLARKE:** Sorry, I think I am in the wrong – which is the section again?

**MR. COLLINS:** It's P-01964.

**MR. CLARKE:** Okay.

**MR. COLLINS:** Tab 14.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** Page 7.

**MR. CLARKE:** Okay. Sorry, I am looking at the wrong pages, 'cause the pages on the bottom are different than the pages on the top, my apologies.

**MR. COLLINS:** Oh yes. The page are always the red pages.

**MR. CLARKE:** Okay.

**MR. COLLINS:** So under Creditworthiness Evaluation it's says: "The proponent is credit worth based on our established criteria and has posted an acceptable performance security package, and we will be recommending acceptance from a creditworthiness perspective. However, in reaching this decision, decision makers should be 'eyes open' to any of the risks noted below in the key findings."

So why should decision makers be eye open – eyes open to creditworthiness risks if Astaldi has a passing score on creditworthiness?

**MR. CLARKE:** This is just an awareness point. I mean – yeah, it was just awareness of things to be conscious of.

**MR. COLLINS:** And –

**MR. CLARKE:** So that if things start to occur that you are prepared to deal with it.

**MR. COLLINS:** And is that something to be conscious of not only of in – not just for down the road, but also for negotiating the commercial terms of the contract?

**MR. CLARKE:** No – sorry, I'm not sure what the intent was or what the eyes open means. I have no idea who wrote this or what their intention was.

**MR. COLLINS:** So if we look down under point 2, we see on the next page, they say "exposure is highest at the beginning of the contract period, and is eliminated towards the end of the construction period." The spreadsheet has been reviewed with LCP and they are in agreement with the methodology used.

Now, the spreadsheet – as – my understanding is that nowhere in this bid evaluation package is the spreadsheet that's referred to actually contained, but we have – we've heard from Derrick Sturge about the spreadsheet and Mr. Sturge has actually produced for us a slightly clearer version of the sheet that was originally in – meant.

Mr. Sturge's clarified version is found at P-02511, which is volume 3, tab 61. Before I begin, have you seen this sheet before? Are you familiar with it?

**MR. CLARKE:** No. Until you showed me last night, I had never seen it before that I can remember. I don't –

**MR. COLLINS:** That's fair.

So my understanding of Mr. Sturge's evidence is that this sheet shows – it is meant to show that Nalcor's cost exposure if Astaldi were to default at various points of contract completion. And so, in the leftmost column, we see the percentage of the contract complete, and by following each row you can see how much Nalcor would end up being on the hook for, setting aside knock-on effects and claims and other costs that are not included in the analysis.

And so, for example, if we follow the 0.5 per cent line, you see, if Nalcor – if Astaldi were to default on the contract with the contract 50 per cent complete, the analysis suggests in the second column that there's about \$550 million of billings remaining under the contract. It's a \$1.1-billion contract.

In the third column we see if you assume that Nalcor found a replacement contractor at a cost of \$1.7 billion, then to do the second half of the work would cost about \$850 million. In the fourth column we see – we assume that Nalcor defaults so – Astaldi defaults so Nalcor seizes Astaldi's security, so Nalcor gets \$250 million.

In the fifth column we see that the net, \$850 million to the new contractor minus \$250 million of Astaldi's security money, Nalcor's going to have to pay \$600 million to finish the job. In the sixth column we see \$550 million. That's what Nalcor has already paid Astaldi.

And so, in the seventh column, the total cost: \$600 million to the new contractor net; \$550 million Nalcor has already paid Astaldi; total cost to completion will be \$1.15 billion. Compared to the original contract value of \$1.1 billion, it's – the difference would be zero point – would be \$50 million, but if you add \$100 million of re-mobilization costs, it's \$150 million.

Does that generally make sense to you, Mr. Clarke?

**MR. CLARKE:** It makes sense to me, yeah.

**MR. COLLINS:** So a number – we heard from Mr. Sturge about a number of simplifying

assumptions that are necessary to do this analysis. And one of the simplifying assumptions Mr. Sturge identified is that this analysis assumes that the buildings that – the amount that Astaldi billed for the work it did is broadly proportional to the amount of work Astaldi had done. Did the commercial terms of Astaldi's eventual contract ensure that buildings and performance would be proportional?

**MR. CLARKE:** On the materials portion it was and on the labour it was an LMax with a cap.

**MR. COLLINS:** And so my understanding is that under the labour portion, Nalcor was entitled to bill – sorry, Astaldi was entitled to bill, essentially, all of the reimbursable craft hours regardless of how much concrete was placed.

**MR. CLARKE:** It was done on a reimbursable to a cap, essentially, yeah, is the methodology. So it was about the payment mechanism, not about the contract structure.

**MR. COLLINS:** So if Astaldi worked all the hours, the whole LMax in the first year without placing any concrete, under the terms of the contract Nalcor would have to pay Astaldi the full LMax.

**MR. CLARKE:** That's an over exaggeration but, yeah, because that would never happen because it wouldn't be allowed to happen, but understood.

**MR. COLLINS:** That's an extreme case but –

**MR. CLARKE:** Yeah.

**MR. COLLINS:** – to take a more factual case, if Astaldi were to work 25 per cent of the hours and place only 3 per cent of the concrete, that –

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** – that's the kind of thing that Nalcor could end up on –

**MR. CLARKE:** Situation, right.

**MR. COLLINS:** So that's simplifying – the creditworthiness team looked at Astaldi's creditworthiness and they put together this

analysis that shows our exposure to a default from Astaldi is quite limited based on a number of simplifying assumptions. And one of the key assumptions is that buildings and performance are going to stay not broadly in line.

**MR. CLARKE:** I would expect that's typical for you to assume that you're going to progress. So the general analysis of your risk going down, as the work progresses –

**MR. COLLINS:** Yeah.

**MR. CLARKE:** – is correct.

**MR. COLLINS:** But, in many ways, under the Astaldi contract as written, the more Astaldi builds without performing, the more your risk goes up.

**MR. CLARKE:** The more they – their cost to complete would go up, right? And then the question comes in to be the – having to be able to go and check in on the parent guarantee. This only covers off your letters of credit and your bond. So you get a parent guarantee from a parent, which people believed they were solid but – so that's a part of your security package as well.

**MR. COLLINS:** The more Astaldi's buildings get ahead of their performance, the greater strain is placed on Astaldi's creditworthiness. The more you're relying on the idea that the parent company can always come through.

**MR. CLARKE:** In theory.

**MR. COLLINS:** Do you recall any discussion about how the creditworthiness analysis and the contract terms, as they were eventually negotiated, don't necessarily a hundred per cent line up?

**MR. CLARKE:** No, I don't recall a conversation around that. And, like I said, typically you'd look at overall risk because you wouldn't sit there and assume that they're not going to perform. You'd assume that you're going to pay out and performance is going to occur as you go along. And as work gets done, risk goes down.

**MR. COLLINS:** So, if we go to P-01680, which is volume 3 and tab 60, we have – this is another –

**MR. CLARKE:** Sorry, 60?

**MR. COLLINS:** Tab 60.

**MR. CLARKE:** Six-zero, okay.

**MR. COLLINS:** Six-zero.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** This is another memo from R. W. Block Consulting. And at the bottom of the page it says: "The CH0007 contract did not link payment of reimbursable labour to the percentage of completion of the concrete work, which was how the labour profit was paid. Replicating the labour profit approach, the contract could have capped the cumulative labour payments to the percentage of completion of the concrete work times the LMAX value. An approach such as this would have required Astaldi to fund its proportionate share of any LMAX over-run as the costs were being incurred. While in our experience, we have not observed instances where payment on cost reimbursable contracts are linked to work put in place, we deemed it appropriate to mention" given "the contractual approach to paying the labour profit, which is an indication" that "there were concerns about the costs being incurred faster than the work was put in place."

Do you recall these concerns about the costs being incurred faster than the work being put in place?

**MR. COLLINS:** No, I don't. I mean the model was talked about. There were questions. I actually asked a question of the SNC lead on it about the LMax concept. The market at the time – as was said during the bid, there was some sort of an adjustment, I don't remember the timing, where the Kiewits of the world and that were a little sensitive to hard dollar and they wanted to get – go to more a target price or – I don't remember the exact. They wanted to go to a different model.

So, as a result, we knew there was going to be a discussion and negotiations around what the model was, and so there was an adjustment made to allow for different versions to be submitted by the bidders. As for the – how that evolved with Astaldi and as for how the profit was paid out versus how the actual labour cost was paid out, it assumes got to do with more cash flow than anything else in the negotiations of the contract.

And I was in those negotiations because we have a closed process. As I said, I was at the top for the recommendations where we asked the questions after and inquired. So the team would have done that. So Ed Over would have been the commercial lead, we had Ron Adamcyk in there, Aiden Meade was heavily involved. And so the evolution of that, I can't answer the question.

**MR. CLARKE:** So I remember you indicating that when the Astaldi contract – when you signed the \$1.1-billion Astaldi contract, based on your \$800-million estimate, you were concerned about the possibility that this contract would come in for way less than Astaldi was estimating.

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** And that Astaldi would, essentially, have a windfall profit. And you pushed to have a – to adopt this target labour hours model that would allow Nalcor to pick up the upside –

**MR. CLARKE:** Right.

**MR. COLLINS:** – if the contract came in cheaper than expected.

In retrospect, what happened, of course, the work was far more expensive than Astaldi estimated. And Astaldi becomes insolvent and there's the question of this – the downside risk of buildings running ahead of performance is, in hindsight, much more of the story we're looking at.

**MR. CLARKE:** So there's a point of clarity here because the way you're stating and relating Astaldi's insolvency to the Muskrat Falls contract, that's not why Astaldi went insolvent.

**MR. COLLINS:** So the –

**MR. CLARKE:** The two – their performance and the productivity issue is one factor, and then their insolvency is another factor with two things occurring mutually exclusive of one another, at the same time.

**MR. COLLINS:** That's just independent?

**MR. CLARKE:** Yes, independent.

**MR. COLLINS:** There are two independent causes for Astaldi's situation: One of which is this contract cost far more than expected; and the second is the parent company, for unrelated reasons, ran into difficulties.

**MR. CLARKE:** Right, to which the Muskrat Falls situation would exacerbate that. But, globally, they had a much bigger problem; therefore, the parent guarantee couldn't really be called upon.

**MR. COLLINS:** But going into this negotiation, you had confidence in the SNC estimate for this package.

**MR. CLARKE:** I wasn't the estimator. I just took the estimate for what it was. We had to use the data we had available to us.

**MR. COLLINS:** And if the original estimate here had been significantly higher, is it reasonable to assume that there would've been more focus on the downside cases?

**MR. CLARKE:** No, not necessarily – maybe, but not necessarily. There's a lot of different factors that would've come into play on it.

**MR. COLLINS:** Is it possible that it would've shifted the negotiating priorities?

**MR. CLARKE:** Again, you're presupposing. I don't know. It depends, because there's not just one factor.

**MR. COLLINS:** Nalcor eventually did succeed in obtaining this target price approach, which would have allowed it to share in any upside if there had been any. That comes at a cost to Astaldi. If that had not been a priority, might it have been possible that – to extend in the

contract. You – there's already a deviation from the ordinary LMax approach. The labour profit is paid out proportionate to work and not (inaudible) per hour.

**MR. CLARKE:** That's a cash flow thing. Yeah.

**MR. COLLINS:** So is it possible that that deviation, which mitigates to a small extent the risk of buildings running ahead of performance, would've been extended to cover the whole – is that something that Nalcor could've achieved in the negotiation if that had been the priority?

**MR. CLARKE:** Anything is possible. Again, you're presupposing and I wasn't in the detail of the LMax piece. I did get into detail of the target piece at the end when the recommendation came and we said whoa, this price is high. We need – there's all upside here, we need to go after that upside.

**MR. COLLINS:** Very good.

If we go to P-02139, which is tab 12 in the first binder.

**MR. CLARKE:** First binder?

**MR. COLLINS:** First binder.

This is the Limited Notice to Proceed that was issued to Astaldi. Can you tell me the – what was the purpose of this document?

**MR. CLARKE:** This was to try and get them started on some very early preliminary work because we were waiting for the financing green light to come through.

**MR. COLLINS:** And if we go to Schedule 1 of the document at page 6, you see a description of the initial work Astaldi was required to commence.

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** And it includes detailed design of the Integrated Cover system and a construction schedule and selection, approval contract agreement and mobilization of subcontractors for the power house Integrated Cover system. Do you know if Astaldi accomplished that work?

**MR. CLARKE:** Specifically, I can't speak to the intricacies. I know in general that they – there seemed to be a reluctance for them to proceed like we would've liked them to.

**MR. COLLINS:** Do you know if Astaldi paid any penalty for their failure to deliver under the LNTP?

**MR. CLARKE:** No, I don't think so. Not that I'm aware of.

**MR. COLLINS:** And –

**MR. CLARKE:** It doesn't mean there wasn't. I'm just – I'm not aware.

**MR. COLLINS:** Do you remember how Nalcor responded to Astaldi's failure to deliver under the LNTP?

**MR. CLARKE:** Specifically, no. I would say in terms of the individual actions, there's what we were looking to get done. You would have to have the conversations with Scott and Ron, more about that.

**MR. COLLINS:** So after the contract is signed in November, December of 2013 –

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** – how did Astaldi perform in its first few months?

**MR. CLARKE:** Not well. Yeah, not well. So it became clear in January, February they weren't doing well; very well-known fact. Unfortunately, not atypical for large contractors trying to get big machines in place and get things going.

So we – I know the guys – Ron, and the guys in the field and that were all over them and not happy with those folks. And we were having conversations at a management level, to the point that in late February or early March or something, we actually went to Rome to meet with their CEO and said: Okay, you guys have to get moving here. You're not going at the pace that's necessary and you're falling behind already. It's not a good start. Anyway so, yeah, so it was very well known.

**MR. COLLINS:** And was the – what was the objective going into that meeting? Maybe it would be worth going to volume 1, tab 25.

**MR. CLARKE:** Twenty-five?

**MR. COLLINS:** That doesn't make sense. Volume – must be volume 2.

**MR. CLARKE:** Volume 2?

**MR. COLLINS:** Yes.

**THE COMMISSIONER:** So P-03793.

**MR. COLLINS:** P-03793, thank you.

This is an email from you to Paul Harrington May 2014. And attached is this presentation. And –

**MR. CLARKE:** Okay.

**MR. COLLINS:** And it's the Astaldi Action Plan. On page 6 we see: "Astaldi acknowledges the gaps; Astaldi has desire to fix the issues; Astaldi are taking steps to rectify."

Then, I think this is more of what you are referring to here. On page 14 we can see your, Key Messaging for Cerri. Do you know who Cerri is?

**MR. CLARKE:** Stefano Cerri was the –

**MR. COLLINS:** Cerri.

**MR. CLARKE:** – he was the CEO of Astaldi at the time.

**MR. COLLINS:** (Inaudible.)

**MR. CLARKE:** So this would have been a presentation, obviously, to give to Ed to prepare him for a conversation with their CEO.

**MR. COLLINS:** And is this representative of the – Nalcor's earlier response to the Astaldi situation?

**MR. CLARKE:** Yes. I would say this is the high level. This is a preparation for the senior-level executive discussions and pressured down. So whenever you're having challenges with a

contractor – and from a relationship period with contractors anyway, we have the working-level relationships and the work that goes on in the field and up through. And then, at the same time, you have a relationship at the top to ensure that there's alignment in terms of what needs to get done and to deal with any strategic risk.

So this would've been specifically about the top and down, and there were conversations and that, I would say, long before this. This is just one representative sample.

**MR. COLLINS:** If we go to page 22 of this, there's a chart there. Are you familiar with this chart? Can you explain it?

**MR. CLARKE:** So, yeah, this would've just been talking about the potential exposure, because at this point in May, obviously, we would've been very concerned that we had not seen through the winter the production that we were expecting, and we need to consider what our possible options are. Let's start having a conversation about it.

But our goal, to be very clear – and it was very clear – was to get these guys moving so we could save the summer season of 2014, because the summer seasons were absolutely critical. We knew in the winter of 2014 – my year is off – we knew in the winter of 2014, at that point, you have to work with these guys to get this going because you can't switch out for the summer of 2014, you don't have time. And so there was some positive signs and some abilities, but there was a lot of work that needed to be done, so we were attacking it on all fronts.

And, in general, per the – one of the slides you pointed out earlier, to put it in a very simplistic manner, contractors – there are performing contractors and there's a scale and there are co-operative contractors. And if you can get a performing, co-operative contractor, just go with them. That's amazing, a wonderful place to be and we had some of those. And if you get a contractor who is performing but not co-operative, you deal with them. To be quite honest, that's the typical in the industry from a commercial perspective.

Astaldi was in the: I'm not performing but I'm willing to work with you, so they were in that

co-operative space. So, we had the best – they were the best option at that point to enable some work to get done in 2014. And they were willing to work with us, so that was the focus; however, this chart shows what the possible considerations would be and where our risk exposures would be.

**MR. COLLINS:** And my understanding, the logic of this chart is that, no, given that they're not performing, if you stay as is, there's a very high risk.

**MR. CLARKE:** Yeah, if we did nothing.

**MR. COLLINS:** If you start helping them more, your risks fall. But then if you get too involved then –

**MR. CLARKE:** You can't take over the job. It's a hard-dollar contract. Either way, they're capped. So we're very conscious of that. We had to facilitate their improvements, which is where our focus was at around this time and we got into – which I would assume Mr. Power got into yesterday – we got into our work teams and our facilitation efforts where Astaldi was co-operating with us, to be able to get things moving in a better manner.

**MR. COLLINS:** And you can see from this chart that there's already – the idea of replacing the contractors already present. But what I took from what you were just saying is that, ultimately, drastic actions like this would have to happen in the fall.

**MR. CLARKE:** Yeah, they have to happen – well, yes, ideally, and they'd have to happen for the right reasons, you know, so – yeah. That's – it's a big undertaking to do anything like that.

**MR. COLLINS:** And so you worked with Astaldi throughout 2014. Did – my understanding is things did begin to improve? Is that fair?

**MR. CLARKE:** Yes, things did begin to improve. They started to become more typical challenges. It's not that there were no challenges, because there were.

**MR. COLLINS:** When did you first become aware that Astaldi was possibly preparing the groundwork for a claim?

**MR. CLARKE:** So you would – the first time it was actually requested of something from them, to say we want to talk to you about our commercial situation, was in the spring of 2015. But, obviously, given their start and the challenges that were going on there, we knew there was going to likely be an issue that would come up, that they were capped – we were capped, sorry, in the contract and they were going to have to finish.

Their bad start was not going to be favourable to them from a commercial perspective, so I'm not in denial as the reason I was there from a – my career perspective is to understand, commercially, that there could be an exposure coming. So, you know, I was conscious of it, but not asked about it until spring of 2015.

**MR. COLLINS:** So I'd like to touch on now another part of Nalcor's early response to Astaldi's poor performance. And if we go to –

**THE COMMISSIONER:** Just before we do, is this an appropriate time, maybe, to break for –

**MR. COLLINS:** Yeah. Thank you, Commissioner, yes.

**THE COMMISSIONER:** So let's take our 10 minutes here now and then we'll get back and continue on.

**CLERK:** All rise.

### Recess

**CLERK:** All rise.

Please be seated.

**THE COMMISSIONER:** Okay, when you're ready, Mr. Collins.

**MR. COLLINS:** Thank you.

**MR. COFFEY:** Commissioner, could – just before you begin – sorry, Commissioner, just before you begin, during the break, counsel were – some of the counsel outside were speaking,



and it is difficult, at times, to hear clearly what Mr. Collins is saying and what Mr. Clarke are saying. Just to let to know. I mean –

**THE COMMISSIONER:** Okay.

**MR. COFFEY:** – we are –

**THE COMMISSIONER:** So, our –

**MR. COFFEY:** And I don't know if it's because of the way that their voices – or the positioning of the mics or the volume, but I did indicate that I'd bring it to your attention.

**THE COMMISSIONER:** Thank you very much.

I think our technical people outside will be hearing this, and –

**MR. COFFEY:** Thank you.

**THE COMMISSIONER:** – no doubt will turn up the volume or whatever they do. I don't know too much about it, myself. I'm going to ask them. And if you continue to have problems, can you let me know?

Okay.

Go ahead, Mr. Collins.

**MR. COLLINS:** So, I'm going to touch on another early response to Astaldi's performance, and if we go to P-03741, volume 2, tab 21.

**MR. CLARKE:** Twenty-one?

**MR. COLLINS:** Twenty-one.

**MR. CLARKE:** Okay.

**MR. COLLINS:** And this is the CH0007 contract.

**MR. CLARKE:** Okay.

**MR. COLLINS:** And at page 204, we have exhibit two, which outlines compensation.

And if we scroll down a little, we see 2.8: Reduction in the Target Cost of Labour.

And in – if I can summarize, in 2.8.1, Astaldi agrees to reduce its labour compensation by \$40 million supposing everything else works out. In 2.8.2, Nalcor agrees to give Astaldi the work for the North and South Dams, CH0009, and also the North Spur stabilization, CH0008, and on a – and the two – and Astaldi and Nalcor will work out the price on a – in an open-book negotiation. And then in 2.8.4, on the next page, the parties agree that if the negotiations don't work out, then the \$40-million reduction in the bid price will be revoked.

**MR. CLARKE:** Yup.

**MR. COLLINS:** Does that match your recollection?

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And if we now go to P-03794, same binder, tab 26. At the very bottom of page 1, we see an email from Paul Harrington to you among other people that says: "CH0009; Lance is to contact Astaldi and inform them as follows: 1 The exclusive arrangement for this work to Astaldi is off the table." And then if we see – if we go back to the top of page 1, we see an email from Mark Turpin that says: "Lance has indicated that he has closed the loop with Astaldi wrt the below mentioned items."

So if I understand this correctly it looks like Nalcor turned down the \$40 million.

**MR. CLARKE:** Yes, based on the performance that we had seen and some – there was some preliminary work with Astaldi's teams to look at pricing and options, but obviously the combination of their performance and that was a very clear, okay, this can't happen. You need to focus on the main scope because you're struggling. And so I had conversations with their senior people – I believe it was Jennifer Hoffman at the time or Mario – yeah, it was one of them – and explained the situation. They understood and we pulled it back.

This was put in the contract as an option during the bid negotiations with them to try and take advantage of economies of scale. If things were working really well and they were doing well, this would be a good natural fit. Obviously, things weren't working well and – we pulled it

back out because we had to mitigate the risk exposure that we had.

**MR. COLLINS:** You've already indicated that in the 2015 construction season, Astaldi's performance started improving but also they started indicating that they were coming to you for more money.

**MR. CLARKE:** Yes.

**MR. COLLINS:** Can you – what kind of reasons were they giving about – at this time?

**MR. CLARKE:** I mean, it varied through that year. As this was a very dynamic discussion or process that evolved, but it was just that we wanna have discussions about the contract, about the commercial aspects of the contract. It was that generic in the early stages but (inaudible) knew where it was heading, obviously.

**MR. COLLINS:** If we go to P-03743, volume 2, tab 34. We see at the bottom of the page, an email from Pete Oppenheim, who I believe is from Westney, to you.

**MR. CLARKE:** Okay.

**MR. COLLINS:** And he says: "Attached are two sets of curves based on the data ... that Steve sent ... Jack ran them with two different probability distributions...."

And if we look at the attachment on page 3, we see at the top: Projected Astaldi Loss on LMAX using Ibbs Labour Data. And I interpret this to mean that Westney is forecasting Astaldi will lose between 420 million and 520 million on the contract –

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** – assuming that the Ibbs projections are right. On the bottom of the page using a slightly different Nalcor data, the numbers are even higher, 634 to 732.

So at this point, is it fair to say you're already projecting how much money Astaldi is going to lose on this contract?

**MR. CLARKE:** We were, obviously – given the fact that they were wanting discussions and we were into discussions over the summer in terms of trying to understand their concerns and the situation, we had started to do our own analysis, as this shows, because we needed to understand what the potential risk exposure they had was and is it gonna be beyond something that they can handle?

**MR. COLLINS:** And somewhere in this period, my understanding is Nalcor decided it that was worth at least negotiating with Astaldi to see it was possible to give them a payment to continue working on the contract.

**MR. CLARKE:** Yes.

So we had some goals that were set, obviously. We want – we needed the work to continue to progress. We understood their slow start had some big issues and we also knew where the market was if we were gonna try to turn this over to somebody else. We had good indications based on some of the initial bids, so we said: We got to get you turned around.

And we knew that we need to understand what their ask might be, right? We knew there was an ask, but we needed to understand what that really could be so we can make a decision as to whether taking an alternative approach, right, and going down what they referred to as "the nuclear option" was the right way to go or would it be the right way to go to work with them.

**MR. COLLINS:** And one of the big things I'm hoping you'll be able to help explain to the Commissioner and to the public is why Nalcor ended up paying Astaldi \$1.8 billion to do work that they'd already promised they could do for \$1.1 billion? And, you've already touched on some of the issues there. And, Commissioner, this decision is very well documented, and I'd refer particularly to P-03803, which is volume 3, tab 47, and P-03804, which is volume 3, tab 48.

So if we start on P-03804 –

**THE COMMISSIONER:** That's tab 48.

**MR. COLLINS:** – on the first page –

**MR. CLARKE:** Which one is that, sorry?  
Where is it?

**THE COMMISSIONER:** Oh, that's tab 38 in –

**MR. COLLINS:** Tab 48.

**THE COMMISSIONER:** – book 3.

**MR. CLARKE:** Thirty – hmm, that's a different one.

**UNIDENTIFIED MALE SPEAKER:** Okay.

**MR. CLARKE:** Yeah.

**THE COMMISSIONER:** 03804, book 3, tab 48.

**MR. CLARKE:** Okay.

**MR. COLLINS:** We see – if we scroll down a little: “In preparing a recommendation, Nalcor and its advisors considered the following:

“1. The strength of a potential claim by the contractor;

“2. The value of the time and impact of the distraction of a disgruntled contractor;

“3. The cost to complete outstanding work;

“4. Astaldi's liquidity position on a go forward basis; and

“5. Alternative execution options and the cost/time consequences.

“The outcome of this process was a recommendation to retain Astaldi as the contractor and negotiate with them a financial contribution which would provide enough financial incentive to complete the job, but at the same time maximize their losses and minimize Nalcor's contribution.”

Is that a – is that, generally, a fair summary of the decision?

**MR. CLARKE:** Yes.

**MR. COLLINS:** And if we go – so if we look at the first – focus in on the first factor: The

strength of a potential claim by the contractor, and if we go – in this same document to page 104, we see – mm-hmm.

“The contract with Astaldi is solid.

“From a pure contractual perspective, the issues that have occurred are the result of Astaldi's actions and are the responsibility of Astaldi.”

Does that match your understanding at the time?

**MR. CLARKE:** That was our position, yes, obviously, yeah, and we felt very comfortable with it.

**MR. COLLINS:** And so, even though Astaldi ended up – Nalcor ended up paying Astaldi \$700 million, but that's not necessarily because you thought Astaldi's claim was any good.

**MR. CLARKE:** No, I mean this wasn't a traditional claim situation where you have the – the specific smaller items usually have an entitlement, a cause and effect, and a quantum calculation. This became very clear that we were solid, we had not – there were typical construction owner/contractor-type things in there, there'd been no big change to the scope of work or anything that could've created this. The contract was awarded, the drawings were 100 per cent approved for construction, which I had never seen before, to have that amount of definition.

So – and we had been very careful not to interfere and take over the job, okay. So we were very comfortable, and there's a lot of different analysis we had done. And Astaldi knew as well, they did, they understood that the ability to do that traditional claim was gonna be limiting for them.

So, put that aside, that's fine, we could stand there and say: Well, great, it's not our problem, you finish it. Well, as the good Newfoundland saying says, you can't get blood out of a turnip. So, there was no way – once we got into it and understood the quantum of the potential issue here to be able to complete the work, and we had done analysis on modelling what Astaldi's corporate situation was, it became very clear they were not going to be able to finish this

work. And if we just took the blank, cold position to say our contract is solid, yay for us, we were going to be in denial and we were going to create a big risk for the project. So we took the decision and said, no, we have to figure out what it would take for them to complete and what we can negotiate with them. And if that's better than what we believe the alternative analysis is, then we will have to go with them and we'll figure this out.

So, in a nutshell, that's how we arrived at the conclusion.

**MR. COLLINS:** So the second factor on that list was the value of time and the impact of the distraction caused by a disgruntled contractor. So if we go to page 74 of the same exhibit we see an assessment of schedule delay on CH0007 on the company's other contractors.

**MR. CLARKE:** Hmm.

**MR. COLLINS:** And so what I take from this document is that one of the factors in this decision is that if you – if something goes wrong on the Astaldi contract, if you spend a season looking for a replacement or if you – if Astaldi runs into cash flow difficulties that slow the job down, there are going to be knock-on effects for CH0009 – if we look at the second – if we look even just at the table of contents – for CH0030, CH0031, CH0032, CH0033, et cetera. And that –

**MR. CLARKE:** Correct. There would've been – yeah, there would've been larger consequences as what the assessment was.

**MR. COLLINS:** And so Nalcor did some work to understand what those consequences would be.

**MR. CLARKE:** Absolutely, yes.

**MR. COLLINS:** And the third factor we have is: "The cost to complete outstanding work ...." Can you explain that factor?

**MR. CLARKE:** So that was looking at the position that the work completion was at – and coming up with, based on the historical norms that we now had experience on, obviously, what we think it would cost to complete the work. So

there was multiple, multiple approaches used trying to attain numbers.

At one point, finally, in the discussions, we did get the Astaldi numbers from them that they had, their real ones; otherwise, we had to piece things together to try and understand, do more of a top-down approach, and use any numbers we could from other sources as the Pete Oppenheim chart shows, which used the Bill Ibbs productivity numbers from other parts of industry.

So we had to assess the cost to complete because we knew that the cost to complete with Astaldi, versus the cost to complete to actually do the work with somebody else, there wasn't going to be a big difference because the site and – was there and the hours were known. Productivity was pretty much known and the opportunity to improve would be limited.

**MR. COLLINS:** Yeah.

**MR. CLARKE:** So we used the best data we had to come up with our assessment of cost to complete.

**MR. COLLINS:** And you were referring there – those charts we saw earlier with Astaldi's projected losses. That's part of this work here.

**MR. CLARKE:** Yeah, that would've been one of the top-down, sort of, approaches taken to say, okay, well, what's your guy's estimate on what it would take to finish this.

**MR. COLLINS:** And the fourth factor is connected to this. This is Astaldi's liquidity position. And my understanding is that there was quite a bit of publicly available data about how – where Astaldi was.

**MR. CLARKE:** Yeah, there was a lot of publicly available data and we worked with our consultants to do a model as to what we believed Astaldi could handle in terms of losses, once the LMax was tapped out and they were then contractually obligated to finish. And it became very clear there was a – because of their corporate situation, there was a window in – unfortunately, just after when our – their LMax was due to tap out in 2016, where they were not going to be able to handle a lot of cash flow. And so they'd be in the middle of our 2016

construction season and they would've hit a corporate liquidity crisis, and so our project was going to – our execution was going to get put at risk.

That was clear. And it was clear that they would, in theory, come through a better period into 2017, but that in 2018, again, they would have struggled if they didn't be able to remove certain assets from their books in Turkey and places like that. So we had done a lot of work and had a lot of knowledge about what was going on globally with them.

As it turned out, that was exactly what occurred to them last year in 2018, as we had projected, actually, so ...

**MR. COLLINS:** So – and if we look at the final factor, which was: “Alternative execution options ...” and if we go to page 43 of the same document, we see a long list of options that were considered; status quo, which I understand – sorry. So status quo, I believe, is insist on the – that Astaldi perform the contract as written, which could result in Astaldi's insolvency or not.

**MR. CLARKE:** Right.

**MR. COLLINS:** And then option 2 is give Astaldi more money to finish the job, essentially. Option 4, we have Integrated Team: “Under this option, it is assumed that Nalcor will provide management” to support “Astaldi and form an integrated management team to oversee completion ....”

So, this was an option that was considered at some point in the –

**MR. CLARKE:** It was an option that was put down in a brainstorm. So, you – essentially, for this one, so you could eliminate it – to let people know we thought about this. We're not structured to do this, right?

**MR. COLLINS:** So, we heard testimony – the Commission's heard testimony from John Mulcahy, who indicated that, at some point, he was asked to comment on whether Nalcor's management team was competent to essentially run the 0007 contract. And his opinion was no. Does that align with what we have –?

**MR. CLARKE:** Yeah, that would line up, yeah. That's not surprising, the – you know, the owner's team is not built up to manage direct-hire workforce, right? So, I didn't know John was asked that. I would assume it was for a period. I remember some conversations about what if they just disappear and we have to keep the work going for a month or two before someone comes in – how would we do that? So, that's the difference between a cold start and a warm start? What if you get caught in (inaudible) –?

**MR. COLLINS:** We'll come to that. We'll come to that.

**MR. CLARKE:** Okay.

**MR. COLLINS:** So, option 3, on the next page, terminate for cause, which leads somewhere. Option 5, Astaldi Defaults, and option 6, you also considered a mutual termination.

**MR. CLARKE:** It was – yes, it was on there because it was something that they had alluded to a few times, to say, you know: This is really bad for us, really bad for you. How about we all just walk away and shake hands? Well, obviously that wasn't gonna happen. We couldn't do that.

**MR. COLLINS:** And if we go to the previous document, page – P-03803, which is tab 47, they start off, Nalcor – there's a draft analysis from Westney here on the potential costs of changing contractors.

And, on page 3, it – you have a chart with various types of costs and how much it would cost in a warm turnover and how much it would cost in a cold turnover. And so, mobilizing a new contractor would cost \$180 million with a warm turnover, but \$300 million with a cold turnover.

What's the difference between those?

**MR. CLARKE:** So, a warm turnover is essentially where you have a co-operative situation, and the team is able to come in and work with the other folks, transition equipment. Maybe you're able to keep most of the team that the contractor has in place, okay?

So – and, a cold turnover is you're in, sort of, contractual fisticuffs and you're in a much harsher situation. You have to shut down, push people out, everyone leaves, you can't get people back. So, there's a big range there because the other side – there's a lot of unknowns that could occur.

**MR. COLLINS:** And so –

**MR. CLARKE:** This would have been based on – at the point in time and considering how much work was left to do and what was going on.

**MR. COLLINS:** Absolutely.

And if we go farther on in this document, at page 8, we see a presentation from Nalcor outlining their strategy to find a replacement contractor.

And if we go to –

**MR. CLARKE:** Yeah.

**MR. COLLINS:** – page 28, we see that Nalcor actually solicited bids.

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** And if we go to page 38, there was actually a recommendation to go with Pennecon.

**MR. CLARKE:** Yes. Correct. This was our contingency plan while we were in discussions and working through with them to ensure that we were not caught out if at all possible.

**MR. COLLINS:** So, Nalcor's contingency plan, by the time you come to the table with Astaldi, and your sense of the cost of the various options, how would you evaluate Nalcor's understanding of its options?

**MR. CLARKE:** We understood them very well, yeah.

**MR. COLLINS:** So – right. The last question I have is – here, is about – about this topic – is about the negotiation style Nalcor was planning. Can you describe how Nalcor was planning to conduct the negotiation?

**MR. CLARKE:** Well, our desire was a principle-based negotiation. So, we were very clear from the start what our goals were and we laid those out – and I know they're in there somewhere, I would assume – that work must continue while we're in discussion, that there very clearly is a challenge here for all parties, so that the pain must be shared, and Astaldi must take accountability for some of the losses there to the degree that they can handle it.

And the third thing was that we needed to maintain our contractual strengths that we had in the original agreement and be able to account for the fact that we now understood that Astaldi's corporate situation had changed, so we needed appropriate protections against that.

So, we took that principle-based approach, and it was about trying to work to a solution, not about going in and necessarily fighting on individual smaller details, because that wasn't going to get us to the solution.

**MR. COLLINS:** Did the 2015 election and the election of a new government have any effect on the negotiations with Astaldi?

**MR. CLARKE:** It affected timing. We – in fall of 2015, as this was coming clear, we had done a huge amount of work on leverage, understanding where our strength points were and how we could best possibly get to good numbers and get to the right position.

One of the key things for us was to ensure we didn't lose summer construction seasons. So, getting in the middle of a negotiation in the middle of the construction season in a hard way would clearly hand leverage over to Astaldi, because they could use the work. They could slow down, they could do different things. It's done; it's not supposed to be, but it's done; it's natural. That was the biggest lever we felt they would have.

So, we were entering heavy into the fall, late fall of '15, saying, okay, we got to figure out what these guys – what their expectations are commercially? And, of course, that's when the election was going on.

So, we were fairly limited in terms of what our remit could be, because it was clear that if we

were going to come to some sort of resolution, it would be new money to go onto an AFE and it would have to be go – someone would have to go and have a conversation with government and get approvals. So, all we could do was explore in the fall of 2015. And – but there were discussions about possible numbers, back and forth, right in through to January.

And then, the government was going through the transition. And so, we had good intel, we put together a package, and we went and met with government. And at that point, we were told to stop – stop discussion with Astaldi; don't go any further.

Then, the EY reviews were going on; they had occurred at the same time. EY ended up in the middle of the process at one point. Slowed things down again, to be quite honest. They seemed to struggle with the fact that this was an imminent issue because we did not want the work in summer of 2016 held for ransom. Either way, I understood that there was a desire for people to understand what was going on. So, that happened. We finally – I remember an EY acknowledgement that, yes, it appears that Nalcor needs to be having this discussion.

So, it seemed we were finally getting back through that phase, and that was in – I'm sorry, I'm not great with dates – but that was in the spring, and Ed was still there. But then, very shortly after that, Ed left and – so we had leadership change. So, we were still left in limbo. And Mr. Marshall came in. We presented the project, went through everything with him, explained where we were. And after that explanation, he asked me – I went to his office and I said – he said, so, how are things going with Astaldi, then, from what you've explained then. I said, they're not. Said we've been told to stop and we haven't gotten back. He said, well, go. He said go now. He said, I'll deal with this. He said, you need to get back to the table.

So, he agreed with our – with the approach and where we were. By that point in time, however, we were now into the middle of spring – late spring – and construction season was starting. And Astaldi was imminently heading towards the wall, and we knew we were going to struggle to get a full-term, long deal to finish the whole work in a very short period. We did not want to

be under that kind of pressure and allow them to leverage the work and we also did not want to risk the work getting done. Because if you lose two, three months in the summer, you've essentially lost a year.

And we just – we couldn't allow that to occur. So, we came with the concept of a bridge agreement to enable the summer season of 2016 to get done. So, that's how the government transition affected our approach.

**MR. COLLINS:** The Commission has heard that Ernst & Young was doing a significant review of Nalcor's operations at this time –

**MR. CLARKE:** Yes.

**MR. COLLINS:** – you've mentioned them already. Did they express any views about Nalcor's approach to the Astaldi negotiations?

**MR. CLARKE:** They expressed views about the situation. Yeah, they seemed to not get the fact that we were heading into a situation in that summer that was going to be extremely risky for us if we did not resolve this. We were at the risk of losing the summer. They did make statements. We went through a lot of reviews with them. I spent days in a room with them. And they seemed to be down in the weeds and wanted to talk about a million dollars for this – \$2 million for that.

Like, some of the documents you pointed out here about impacts on the contractors, that's not what the ultimate driver was here. The ultimate driver was the fact that the cost to complete was going to be unachievable by Astaldi because their liquidity wasn't allowing them to put the money in. They disagreed with that. I don't know how they got their numbers. They were clearly – they were wrong. That was clear. And after some days, weeks of going through this, they did acknowledge that, yeah, it appears you need to talk to these guys.

So – yeah, so, there was interaction, and they didn't necessarily align with our approach but they weren't listening, from my perspective. They did not get the situation.

**MR. COLLINS:** Is this a case where they never got it? Or did they eventually get (inaudible) –?

**MR. CLARKE:** No, they did get it – in the end, they said: Yeah, we agree. You got to go talk to these guys. I think it was begrudgingly, but they did say we have to go do it. So, then – and then Stan – like, I said, there was a – leadership changes. And Stan came in and said go and we did.

**MR. COLLINS:** So, you mentioned the Bridge Agreement. We see it at P-016 – 01868, I apologize. Volume 3, tab 45.

**MR. CLARKE:** Forty-five?

**MR. COLLINS:** Tab 45.

**MR. CLARKE:** Okay. Yeah.

**MR. COLLINS:** And if we turn to page 2 of the Bridge Agreement, the first section says, essentially, Nalcor agrees to give Astaldi \$150 million?

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** Is that the price of getting Astaldi to work an extra summer?

**MR. CLARKE:** Yeah, so, the analysis would've been done to look at what was required in terms of expenditures to get through the summer, compared to what the money was that we were already going to pay under the contract, right? And then would've considered what possible cash they could've involved in this as well, and the number – we came up with that number to get through.

I don't remember the exact details in the end of how that would've been done. Obviously, there would've been a negotiated point in the end, but that would've been the basis of it. It would've had a basis.

**MR. COLLINS:** And if we go to P-01869, which is volume 2, tab 37, we see the final completion contract.

And on page 3 of this document, section 4, the contract price is increased to \$1.83 billion.

**MR. CLARKE:** Yes.

**MR. COLLINS:** And the other significant feature of this contract – on page 12, bottom of the page, section 46 – there's a mutual release.

Subject – "Contractor and Company mutually and irrevocably and unconditionally release, waive and forever discharge each other, their respective affiliates," et cetera, "from ... all claims, demands, actions, causes of actions," et cetera, "of any kind ... whether known or unknown or ought to have been known, that arise out of or relate to the Agreement and Contractor's performance of the Work up to and including November 30, 2016, including but not limited to the claims set out in Contractor's 'justification for incremental compensation' ...."

That's – despite that clause, Nalcor and Astaldi are currently in arbitration.

**MR. CLARKE:** Correct.

**MR. COLLINS:** And without going too far into the terms of that arbitration, some of the grounds overlap with the grounds of the original justification for incremental compensation?

**MR. CLARKE:** Yes.

**MR. COLLINS:** In retrospect, was the completion agreement the least cost method to finish the work?

**MR. CLARKE:** I would believe so, yes.

**MR. COLLINS:** Could Nalcor have done any better?

**MR. CLARKE:** Based on the information available at the time, no, a switch-out would've come with a lot of unknown risk and exposures.

**MR. COLLINS:** I have a few questions about the SNC risk report, but, first, to put them in a little bit of context, why, from your perspective, did Nalcor switch from an EPCM relationship with SNC-Lavalin to having them as part of an integrated management team?

**MR. CLARKE:** So, it was a performance issue. However, unlike what I described earlier with Astaldi, where you had someone who's



struggling but wants to work with you to get there, SNC just got more and more difficult to deal with.

And SNC's role on the project, unlike someone who's in a construction contract with us where they have a very – there's a defined wall between us and them, and they have something to do that we've been very prescribed about it, and they've come to a hard dollar on that to say that's what you have to do – to get done for us. SNC was in a contract where – put the engineering aside for a second – where they were representing us.

They were meant to be working with us; they were meant to be executing the project on behalf – and bring in their expertise, their systems, their people, and they're meant to be supporting what needs to get done. And they weren't performing; it wasn't happening; the systems weren't there. And our team could understand that because that is expertise that the team had.

So, that's fine, though. Again, you work with people. So, we did a lot of work trying to get clarity, trying to get the roles right, trying to have them perform. There were reviews. We brought in Deloitte together, mutually, to try and get team building and look at where some of the goals were, get initiatives going; not unlike the facilitation work we did with Astaldi, but more collaborative.

But it still wasn't happening. They were still being very – I don't know the right word to use, I'm going to say – territorial and their approach on it. And there was a lot of information that we should've had and decisions being made that were past us and things weren't getting done and they were becoming, in their statements, more contractual.

So when you have someone who's not getting it done and they're taking contractual positions and they're supposed to be supporting and doing what you need done, you have no choice, you have to make some adjustments. So we did. We left the engineering with them. They were performing there and they have performed. In general, that engineering has gone well, but the procurement construction management side of it,

it wasn't going well. So we adjusted the model, got the system set up, worked with them and it got done.

**MR. COLLINS:** Is that switch from an EPCM relationship to an integrated management team relationship uncommon in your experience?

**MR. CLARKE:** No. No, it's not, actually, at all. I – White Rose is a local example that happened. Maersk had come in; they were in the managing contractor role. There was challenges there in – with Husky and them and in terms of information and other managing the contractors and they had to be switched out. That's one local example, so this is not uncommon in the industry at all.

**MR. COLLINS:** Is it a structurally difficult relationship, an EPCM relationship?

**MR. CLARKE:** How so? Sorry, I don't understand your question.

**MR. COLLINS:** Are there any tensions inherent in the relationship?

**MR. CLARKE:** There's always tensions in contractual relationships, but they should be a lot less with an EPCM –

**MR. COLLINS:** With it.

**MR. CLARKE:** – yeah, because they're – again, they're working for you, they're representing you. They're supposed to be managing others on your behalf. So, you know, that is very different. And they don't have – they have limited liability by definition, EPCMs do. So the risk of overall project delivery, we'll say, of that, holistically, still sits with the owner at the end of the day.

So the EPCM is in a position where they're supposed to help. I don't know if that answers your question, sorry.

**MR. COLLINS:** How did the switch from an EPCM relationship to an integrated management team relationship affect the practical working relationship between Nalcor and SNC-Lavalin?

**MR. CLARKE:** Obviously, it was tense at different stages for a while because, as you can

imagine, people would've wanted more control on things. Now, we are seeing some of their fiefdom removed.

But, in general – and that's typical. I would expect to see that occur; I've been through it before. But you work through that and the teams come back together under the systems. And one thing I have seen is no one likes change in any company or anything that's happening, but once the change starts to take place and go, people roll with it, especially if they see things are performing. And things did turn around in terms of overall knowledge, reporting and our ability to get the procurement systems in place, to get the contracts in place, because this was early days, right?

So there was a change and, in general, like, people came on board. There were a few people at the senior level who weren't happy, but they were the people who were not performing before and were now getting their roles adjusted, right? But we – because we never went in and said, all you guys are going home. That seemed to be some of the information that was out there. That's not what occurred.

**MR. COLLINS:** Was the switch a loss of business for SNC?

**MR. CLARKE:** Yes.

**MR. COLLINS:** Did that affect their behaviour?

**MR. CLARKE:** Didn't make them happy and, of course, they kept doing certain things, then, to try and get their business back. You know, there was different communications, obviously, with Gilbert and Ed and different guys trying to say that you're going down the wrong path, you really need to do it our way and you need to let us have it back in our control, because they wanted to get their revenue back, obviously.

**MR. COLLINS:** So if we go to P-02587, which is volume 1, tab 8.

There's an email from Wendy Darcy to Scott Thon. Okay? And it says: "Scott please see the note below informing us that Lance Clarke will be joining the meeting and dinner tomorrow

with Nalcor. Do you need anyone else to attend due to this?

"Right now the attendees are: Scott, Bob, Gilbert, Ed & Lance."

And this email is from April 24, 2013.

**MR. CLARKE:** Okay.

**MR. COLLINS:** Do you – first, do you know who Scott, Bob, Gilbert, Ed and Lance are?

**MR. CLARKE:** Scott Thon, obviously, so, yes. Gilbert, Ed, I know, and Lance. And Bob, I would assume, is Bob Card.

**MR. COLLINS:** Do you remember this meeting and dinner?

**MR. CLARKE:** I remember going to dinner with these guys. I do remember going to dinner because I remember – I'd only met Bob Card once or twice I believe, and this was one of the times. I do remember going to dinner with them.

**MR. COLLINS:** Do you remember the topics of conversation at dinner?

**MR. CLARKE:** Most of it was generic and general. I don't remember. If you're specifically asking about the risk, as I'd stated in my interview in February, I remember that there was conversation around overall project risk and how we approach things and what we're doing, but I don't remember specifics.

**MR. COLLINS:** Do you – what about the meeting? Do you remember attending the meeting?

**MR. CLARKE:** I do not remember attending the meeting. And I know it was brought to my attention that I was asked to the meeting and I was on the list. Quite honestly, I do not remembering attending a meeting. I remember dinner, I do not remember attending a meeting though, so –

**MR. COLLINS:** Would you be likely to remember attending?

**MR. CLARKE:** Sorry?

**MR. COLLINS:** Would you be likely to remember attending? Is attending a meeting with the CEO of SNC-Lavalin something you'd be likely to remember?

**MR. CLARKE:** Depends on what the topic was and depends on what was happening, right? So I quite honestly don't – I mean I attended with most of the contractors, SNC included. I attended a lot of the meetings with the CEOs because I was brought in to deal with, not necessarily them, but the notch below them from a relationship perspective. And so I was in a lot of those meetings, so I wouldn't necessarily – this wouldn't have been a special thing, shall we say.

**MR. COLLINS:** Okay. And so you don't remember any conversation about the risk report in particular?

**MR. CLARKE:** No, I do not. No, I don't.

**MR. COLLINS:** Do you remember overhearing or participating in any other conversations around this time that might cast some light on the issue?

**MR. CLARKE:** So as I made the statement in February when I was interviewed, that I offered up when I was asked about do you know anything about this? I remember – which is funny because a lot of times I don't remember the details on a lot of stuff. But I remember one of the meetings we had with Deloitte where we were still trying to work through the issues with SNC.

And I remember that meeting fairly well, it was at Pippy Park, about the discussions, because it was fairly heated in terms of where we were going. And I remember that I just felt that SNC were not listening and sort of undermining what we were trying to do. And I remember a conversation that I don't think I was directly involved with the thing, but I remember a conversation where Scott Thon was asking I believe it was Paul about the risk. I remember Paul telling him that, well, we have a risk team, Scott, and we have – your folks are involved, we have risk advisors, we have a risk process. And Scott sort of going, oh, acknowledging almost in a way, like, he didn't realize we had all that.

And I remember a few things like that from that meeting because my headspace was that here we go again. It's SNC again, not listening, focusing on other things instead of doing what they're supposed to do, so ...

**MR. COLLINS:** If we go to P-03740, which is volume 1, tab 11, there's an email from Paul Harrington to Gilbert Bennett and you.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** It says: "I met with Normand and JD Tremblay ... yesterday and asked for clarification on the" SNC-Lavalin "risk analysis that was carried out on the project."

"The status is" – skipping a paragraph – "that a draft is with B Gagne and Scott Thon and they may be thinking about providing it to us. I would respectfully decline that offer," and then he gives some reasons. And he says: "So I recommend we talk to Scott and reassure him that we realize there was no mal intent here however given the above we would prefer if this remained as a draft internal document and not presented to us."

Do you remember any – this email, any conversation about this –?

**MR. CLARKE:** I actually don't. It got brought to my attention in February that I was copied on this. I just – I didn't remember it. It doesn't surprise me I was copied because, again, we would've interpreted it as another attempt by SNC to just not be focused on what they were supposed to be focused on, to be quite honest.

But I wasn't into this whole risk situation and conversations that had been going on. I just – I think the whole thing is a red herring, but I know my opinion doesn't necessarily matter.

**MR. COLLINS:** If we go to volume 3, tab 49, P-03805.

**MR. CLARKE:** Three?

**MR. COLLINS:** So tab 49, P-03805.

At the very bottom of the page, we see – a little farther down – we see, essentially, Jason Kean’s resignation letter.

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** It continues on the next page.

And you forward this to James Meaney with the text, if you scroll up a bit: “The house of cards is shaking bad....”

**MR. CLARKE:** Yes.

**MR. COLLINS:** Can you explain what you meant by that?

**MR. CLARKE:** At this point, we had been under – well, yeah, in ’17. Through the fall of 2016 was – through the 2016 period was very trying. With the changes that occurred, obviously, with government and that, the project was publicly under attack and very, very challenging, beyond anything I had seen in my career in terms of, you know, going from – it’s fine on a big project to not have support, shall we say, it’s another thing to be completely under attack. So as we got in through ’16 there was just – continued to be challenging.

And one of the big risks that we felt was always there was that this wasn’t sustainable and people would start to depart. And it’s well known that one of the big risks you have is that your management team dissolves or leaves. That adds a big risk in terms of completion of a project.

So my reference here was very clear that after some of the organization changes and that that had occurred, on top of all of the strain we had on us, Jason leaving was what I feared was going to be the start of a lot of people leaving. So that’s my reference, that’s what it’s about.

**MR. COLLINS:** If we go to P-03180, volume 3, tab 42, we have an email from you to Paul Harrington and Brian Crawley. And you say – you write: “My thoughts on top of Brian’s.” And attached is a letter – a draft letter to Stan Marshall from Paul Harrington.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** Do you know – this letter is marked up with blue and red text. Do you know which text is whose?

**MR. CLARKE:** I don’t. I don’t remember. I’d have to read through and sort of make an assessment, I guess, shall we say.

**MR. COLLINS:** The – there are a few comments in here that we discussed with other witnesses. In particular, the text in the letter writes, “the direction that was provided to the Project Team with the full consent of the Board and Government was to set a very aggressive schedule with a Target that was recognized as being in the P5 to P10 range.”

I’m sorry, that’s on page 3. Do you recall whether that comment was accurate?

**MR. CLARKE:** In terms of the statement being made in the letter, I wasn’t responding as to all of the accuracies or inaccuracies in it, I was adding my comments to it.

So I knew, though, that the schedule – we knew the schedule was aggressive. And that was known, that the schedule was aggressive. As to what the P-value is, I can’t speak to that.

**MR. COLLINS:** The Commission has received a number of briefing notes and slide presentations prepared by the project team. Do you know – what role did you play in assembling those briefing notes and slide presentations?

**MR. CLARKE:** Are you referring to what was done for Grant – the Grant Thornton reviews last year and in –

**MR. COLLINS:** Yes, there were five binders of materials –

**MR. CLARKE:** Okay.

**MR. COLLINS:** – and a series of slide presentations.

**MR. CLARKE:** All right, sorry, I just needed clarity.

So the binders – I reviewed the binders to see if there was anything from a content perspective

that needed adjustment. I had very few comments. I couldn't – a lot of it I couldn't comment to, it was very detailed.

And the presentations, I was a part of the team that put the presentations together. Yes, so I had a lot more input into the presentations versus the actual binders.

**MR. COLLINS:** Are those presentations accurate to the best of your knowledge?

**MR. CLARKE:** Yeah, to the best of my knowledge. Yes. There's some areas in those presentations that I couldn't personally speak to, specifically, all right?

**MR. COLLINS:** Did you perceive any significant changes in management style between Ed Martin and Stan Marshall?

**MR. CLARKE:** Their styles are different from a leadership perspective, no question about that. Ed's style is less direct than Stan's style. Stan is very to the point, but very polite about it, but very to the point. Ed's style is more to try and get your input a little more – not that Stan doesn't. But, anyway, the two have very different approaches to things.

Ed's view on things is very much outward looking. Twenty years sort of vision-type fellow is the way he sees the world. Stan's vision and view of the world is, in a shorter duration, more like a – as the successful businessman that he has been and that five-year business cycle-type view of the world.

I have a lot of respect for both of them; they're different people with different experiences. But they have different histories on big projects and that, obviously, Ed has actually more megaproject experience and knowledge than Stan would directly. But Stan understands it, no question whatsoever.

They're both very supportive of the project team and the work we did, and that showed when Stan came in. And through all of the turmoil and sort of attacks on the team, Stan's always been very supportive.

**MR. COLLINS:** Did the shift in CEOs lead to any other changes in the organization's culture and operation?

**MR. CLARKE:** The projects, you mean?

**MR. COLLINS:** Yeah. The projects.

**MR. CLARKE:** The project – the bifurcation as they call it, the split of the project in 2016, some point – that was the only real adjustment that I guess got made. On the generation side, we carried on as normal, but you know, the project got split so that was an adjustment.

**MR. COLLINS:** That contributed to the 'house of cards' sense that you described earlier?

**MR. CLARKE:** To – well to Jason it did, yes. Yeah. No question, to guys like Jason and Darren DeBourke and, yeah. 'Cause they were – the changeover at that point in time also resulted in leadership changes that was very different approach, so one that didn't quite align with the way that we had been doing things, and essentially wanted to say that everything we were doing was wrong.

So, obviously, the guys had a limited desire to deal with that, and unfortunately they left.

**MR. COLLINS:** The briefing note to the presentations assembled by the project team attribute a significant part of the cost overruns to a concept of turbulence. Is turbulence the same thing that you're describing when you say the house of cards is shaking bad?

**MR. CLARKE:** So, turbulence – yeah. So, turbulence is a known – there's papers written on it, and it's a known factor in megaprojects; that would be one aspect of it. And the cost – it's not so much that the cost overruns are directly attributed to the turbulence, I guess. The cost overruns are known factors that are outlined in there, where it's obviously the Astaldi unproductivity is a big factor.

The reliabilities stuff on the transmission line was a big factor. Then, if you took the standard, normal construction contingency approach, and you differentiate between a P50 and a P75 – which neither is wrong, neither is right; it's a risk decision – that would account for some

money. And, once you – so – then – so those things are fairly typical project issues, and they would account for cost issues.

When you take normal project challenges and you put them in a megaproject, they get exacerbated. And the difference with Muskrat Falls was that, more than anything I had seen, those additional external challenges, the degree to which they came about and the loss of control that resulted – in many cases – made the situation way worse.

So, a few examples would be Astaldi's situation. Having a contractor not perform well, not start well, that's not abnormal; this stuff happens in construction. It happened on a lot of projects I was on, but the public doesn't understand it because it's not made public. But, when you take that and you combine it with the fact that Astaldi was having corporate liquidity issues – a 100-year-old company – because of problems in Venezuela with the government, because of issues in Turkey, and you can't account for that stuff; and it makes your situation much worse.

We had a similar thing then with SNC. We had challenges. That's not atypical. When you take that and you combine it with the fact that they had all their corruption challenges going on at the same time and a lot of their VPs and the CEO – everybody was getting switched out in front of us, and you couldn't get their attention. It makes it worse – way worse. You still have to manage it, but it makes it way worse.

GE took over Alstom, right in the middle of the project. Again, some of these things can occur, but to have this number of them occur – and that turns contractors upside down. But on jobs where this has occurred but not to that extent – and, when you take those things and you combine the public effect, where this project is obviously very political, it's a given. Understandably so, it's public money. But, when you go then with all those challenges that the team and company has to deal with, and on top of that you're under daily attack and it starts to get personal, we're not politicians. I'm not a politician; I'm not a media person. I didn't sign up for that sort of thing. And what happens is it becomes a massive distraction.

So, the combination of all of those things just make typical issues extremely challenging to get through. Doesn't mean you can't, but it makes it very, very hard to get through, and exacerbates the issue; exacerbates your regular cost challenges and your schedule issues. Makes them very difficult to get through.

**MR. COLLINS:** Why did you leave the Muskrat Falls project?

**MR. CLARKE:** I had other opportunities that I was thinking about. To me, I had dealt with Astaldi, ANDRITZ from a commercial perspective, and for the reasons that I basically just explained. It was – the external attacks and challenges were not sustainable, and I felt that we were set up for failure to be able to complete, and I just wasn't interested in continuing on a day-to-day basis in that world. So, I have continued to help to support them for issues around Astaldi, at the request of Mr. Marshall and others, so – but I'm not involved day-to-day.

**MR. COLLINS:** Can we go to P-03782, which is volume 3, tab 63.

**MR. CLARKE:** Sixty-three, yeah.

**MR. COLLINS:** So, this is a letter from your counsel to the Commission. If we scroll down a little, it says: "Further to the above noted Summons issued to Mr. Lance Clarke, Mr. Clarke advises that he has no documents and/or communications of which the said Summons requires production and advises that,

"He was never issued a 'Nalcor cellular phone' but has used a personal cellular phone throughout his" employment "with Nalcor. Mr. Power has searched the data contained on that phone in compliance with the said Summons ...."

I assume that means you?

**MR. CLARKE:** I assume that's a typo.

**MR. COLLINS:** You did search the data?

**MR. CLARKE:** On my phone? Yeah, there's –

**MR. COLLINS:** Yeah.

**MR. CLARKE:** Yeah, there's nothing there, it was easy to search. Everything is deleted after 30 days, so ...

**MR. COLLINS:** "He has no text messages on his cellular phone because he deletes all messages every 30 days to free up space on his cellular phone; and

"He would not have used the medium of Facebook, Twitter, Instagram or LinkedIn to communicate matters relating ...."

Did you use your cellphone – your personal cellphone – to correspond to members of the team –

**MR. CLARKE:** Texts.

**MR. COLLINS:** – about Muskrat Falls?

**MR. CLARKE:** With texts I did, yes.

**MR. COLLINS:** You did.

Are you aware that other members of the Muskrat Falls Project team also delete their texts every 30 days?

**MR. CLARKE:** Yeah, I understand they do, based on what I've been hearing here and in conversation, but it's pretty standard.

**MR. COLLINS:** Do you know why that it would be?

**MR. CLARKE:** I do it – like I said, there's memory and having these massive chains of text on your phone – I just don't need it there and don't want it there. I'm sorry; I don't have any other answer.

**MR. COLLINS:** Absolutely.

**MR. CLARKE:** It's a setting on the phone.

**MR. COLLINS:** So, it's a – is it a coincidence that some members of the – many members of the project team have this data-retentive, sort of, this approach of deleting text messages to save space?

**MR. CLARKE:** I can't speak for other people. I don't – you know, I would assume so. It's a

standard setting on an iPhone or anything else, I guess.

**MR. COLLINS:** Did you ever discuss deleting text messages, emails or other records with people you knew from Nalcor?

**MR. CLARKE:** No, other than someone saying: Do you have your phone setting deleted – to delete text messages? Yeah, I do. Oh yeah. Okay, yeah, you know, looks funny because they're asking about this. Other than that – that was only in the last few weeks when we got summons but, no, I don't –

**MR. COLLINS:** So you had the – you had those conversations after the summons? After you received the summons?

**MR. CLARKE:** Yeah, to say this was strange, I can't believe I got a request for this, other than that.

**MR. COLLINS:** And – but your settings had been changed. When did you first set your phone to delete every 30 days?

**MR. CLARKE:** I don't remember. I'm sorry, I don't know.

**MR. COLLINS:** Could you give me a –?

**MR. CLARKE:** My phone is a new phone, so if the old phone had it on it, I don't know. I – it would – I can tell you that it would not have been since I got a summons. That's 100 per cent certainty. It was long before that and I may not even have actually done it. You buy the phone. You switch out. There's a setting. I don't know.

**MR. COLLINS:** I have one other question arising out of Mr. Power's evidence. Do you know who paid for the Integrated Cover Structure and its removal?

**MR. CLARKE:** Who paid for the Integrated Cover Structure? It was part of the Astaldi contract bid price.

**MR. COLLINS:** So, Nalcor paid for it – sorry, Astaldi paid for it.

**MR. CLARKE:** Astaldi paid for it as a part of what we would've paid through, I guess, or part of what their losses were.

**MR. COLLINS:** Those are my questions, Commissioner.

**THE COMMISSIONER:** All right, so it's about noontime – or noon break time. So we'll take our break now and we'll come back this afternoon for questions from other counsel.

**MR. CLARKE:** Okay.

**THE COMMISSIONER:** So we'll adjourn 'til 2.

**CLERK:** All rise.

### Recess

**CLERK:** All rise.

This Commission of Inquiry is now in session.

Please be seated.

**THE COMMISSIONER:** All right.

All right, Province of Newfoundland and Labrador.

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

**THE COMMISSIONER:** Thank you.

Concerned Citizens Coalition.

**MR. HISCOCK:** Good afternoon. Will Hiscock, on behalf of the Concerned Citizens Coalition.

A few questions and most of these will touch on subject matter that was discussed this morning. I'm wondering, I guess, to start off: In your position as the business manager or the business lead on the project, did you give the project management team any particular advice in advance of Astaldi's acceptance of the contract on Nalcor's terms? Especially weighed against—sorry, Astaldi's inexperience, any suggestion to the project management team that they might be engaged in self-delusion regarding what might

be achieved. And I'm thinking specifically in terms of the schedule here, as well as the bid.

**MR. CLARKE:** No, so from a scheduling perspective that's not my expertise. I'm not a construction expert. Obviously, the schedule was done by SNC. We understood what it was supposed to mean and the bids came in. And the construction contractors are the experts in that they commented in their bids and said what they could achieve. So we took that for what it was. So I would not have provided advice on scheduling, no.

**MR. HISCOCK:** Were you aware that at the time when the contract was being awarded, that the schedule – that the internal information in Nalcor was that the schedule was not likely to be met? I think a P1 to P3, kind of, chance of success.

**MR. CLARKE:** So we – people knew that the schedule was aggressive and, typically, construction schedules are aggressive. As to what exactly that was, I can't speak to it specifically but we knew it was aggressive. But the construction bids and the contractor said, yeah, we can do this.

So I'm not someone to go and challenge whether or not they can achieve that. That's not –

**MR. HISCOCK:** Okay. And the advice you were getting from people on your own team was that the contractors, believing they could make this, was reasonable.

**MR. CLARKE:** Yeah. They're the ones who said they could do it so, yes. Yeah.

**MR. HISCOCK:** Okay, but who on your team accepted that that was realistic and wasn't delusional, I guess? You know, who, on your team, would have been the central person to say, look, we – internally, we know that the schedule is not likely to be met. And that was before the significant delay, right? I mean, it was basically impossible by the time they took over that that would – the schedule was going to get met.

Who on your team was advising that we shouldn't be concerned that this contractor is willing to sign on to what our own data suggests are impossible timelines?



**MR. CLARKE:** So I don't think there's a who. There's a contract evaluation process. The evaluation process comes out and says here's who we recommend, here's the schedule, here's where we are. There's multiple people on that evaluation team, so it's all well documented. So whoever was on that, that's where it would've been. There wouldn't have been a who specifically.

**MR. HISCOCK:** Well, in most organizations the buck stops somewhere. So, on that front, in the project management team, there would've been somebody, I put it to you or I ask you – there ought to have been somebody that would be the person who had their head around the schedule, understood the schedule, understood the construction aspects of that schedule, and would be able to competently review a claim by a contractor and see if this is reasonable, is this not.

**MR. CLARKE:** So –

**MR. HISCOCK:** Who would that have been on the field?

**MR. CLARKE:** So claim is something completely different than what you're talking about. That's a different aspect than analysis altogether. Construction knowledge, in terms of being able to execute; there were various members on the evaluation team who had that construction knowledge. There were some SNC people there.

And then when it came up the line for a sign-off within our organization, there would've been people on the team like Ron Power and Paul Harrington. And, you know, those folks would have knowledge about those things as well. Jason Kean was probably there. We had a full approval authorization process that it went through to get the appropriate reviews.

**MR. HISCOCK:** All right, so to your knowledge anyways, there was no red flag, either in the contract price – and you've explained the estimates and why – the fact that this was very low compared to the other contract price – bids, we'll say, wasn't – didn't raise a red flag for you. And you weren't aware enough of the schedule for that to raise a red flag. Is that what I'm understanding?

**MR. CLARKE:** Yeah, in terms of the detail of the schedule. Yes, it's not what my role was.

Everyone says it can – it's aggressive, it can be achieved. We would've asked Astaldi: Can you do this? Are you sure where we're to? Because there was a conversation about that due to the delay to say: Are your dates still good? The answer was: Yes, our dates are still good. So off we go.

**MR. HISCOCK:** Okay.

So I take it that you wouldn't have made any suggestions to the executive or to the other members of the project management team that the Astaldi bid should be reconsidered?

**MR. CLARKE:** No.

**MR. HISCOCK:** Okay.

I mean, obviously, with the benefit of hindsight, everyone can see that the Astaldi selection was not a wise choice.

**MR. CLARKE:** (Inaudible.)

**MR. HISCOCK:** But, you know, you were a member of the project management team and you were there to bring certain project management and megaproject skills to that team.

I'm failing to understand, I guess – do you consider yourself to have been party and part of this debacle of hiring Astaldi in the collapse of that contract? And do you see that were efforts you could've made along the way or suggestions you might've made that could've improved that or avoided that?

**MR. CLARKE:** So the contract was awarded based on a practice that was in place that was used to award all the other contracts on the project. So it's the same process, as I went through this morning and outlined the logic that was there, in terms of the Astaldi award and what the thinking was. I do believe it was a sound process, based on the best information available at the time.

Hindsight – I'm not here for hindsight. I work based on the facts that were there and that was the best decision, based on that information and

my expertise and experience. I – there's no way you couldn't have awarded to them.

**MR. HISCOCK:** Okay.

I can understand that it is with the benefit of hindsight, and so that has to be taken into consideration, obviously, but we are here for the benefit of hindsight. That's what this Inquiry is about. And I assume that a person in your position would want to learn from their past experiences.

So, I guess, what I'm asking is if you were put in that situation again today would you do anything different? And, if so, what would you do different?

**MR. CLARKE:** No. Based on that information that's in front of you, that's what I'd do.

**MR. HISCOCK:** But we know how poorly that worked out, right?

**MR. CLARKE:** Yeah.

**MR. HISCOCK:** So surely there's something –

**MR. CLARKE:** You're assuming the award –

**MR. HISCOCK:** – that we have the benefit of hindsight.

**MR. CLARKE:** You're assuming the award of the contract is what caused the problem. The award of the contract is not what caused the problem.

**MR. HISCOCK:** Okay, but the structuring of the contract, the failure to anticipate problems that did, in fact, arise is why we have a problem. Like, Astaldi is an issue here. That contract is an issue.

**MR. CLARKE:** Well, yeah.

**MR. HISCOCK:** Do you concede that?

**MR. CLARKE:** Oh, yeah, that contract was a problem, yes, and we took it past and sorted it out.

To say that there will never be problems in construction is an impossibility, that's not how it

works. So there were issues. I outlined them. We had an approach. I said we're going to deal with those issues. Once they occur, you can't go back in time, you have to deal with them the best way possible and I firmly believe that we did. We used the information we had and we came out with what was the best result. I couldn't go backwards.

**MR. HISCOCK:** And I very much understand that when you're in the moment, look, there's no benefit to looking backwards and second-guessing. You simply got to come up with the best approach to move this forward to get the best result that you can. You play the hand you're dealt.

But what I'm saying is in hindsight now, which you – this Commission does have – this is the whole point of this Commission, to a fair degree, is to look back with the benefit of hindsight and say what went wrong, why did it go wrong and what could we do differently?

What I'm saying is you were a central player in the project management team. You brought a lot of experience and you were a key player. You were involved in the awarding of the Astaldi contract, development of the collective agreements and so on.

**MR. CLARKE:** Mm-hmm.

**MR. HISCOCK:** With that hindsight, using that hindsight now, what could have been done differently to avoid some of the problems that did materialize on that contract?

**MR. CLARKE:** I think everything – so the problems on the contract had to do with the productivity issues that occurred. That's what drove the fundamental issue. I outlined that this morning.

**MR. HISCOCK:** Yes.

**MR. CLARKE:** And what added to that problem was the fact that Astaldi, outside of the Muskrat Falls issue, had a massive liquidity problem so they could not cover the issue. It was so material that they did not have the funds to be able to do it. So that's an outlier, that's outside of what you can control.

So the only other thing that you could do is if you said, okay, fine, I believe all contracts are going fail so I'm going to put contingency in my pocket for a hundred per cent, which no one does. You can't do it; it's not how it works.

**MR. HISCOCK:** Okay, so could things have been done to address the productivity issue?

**MR. CLARKE:** And things were done to turn them around and get them working. And Astaldi could have done some things to address their actual productivity internally, yes. And there was a lot of effort put into that to try and get an improvement on it.

**MR. HISCOCK:** Okay.

So the productivity is something that there is a failure that in hindsight you think could've been worked on and improved before the contract was awarded or in the awarding of that contract. Yes or no.

**MR. CLARKE:** Not in the award, productivity all came after.

**MR. HISCOCK:** Okay. So could the collective agreements that were structured beforehand, or in the awarding of that contract, could productivity been improved in either of those regards?

**MR. CLARKE:** There is always an opportunity for improvement – always, so ...

**MR. HISCOCK:** Okay.

We have a major productivity issue and it's going to cost the province hundreds of millions of dollars, right? So what I'm asking is: Were you in that same situation again would you sign same the contract, sign the same collective agreements? Or now, with the benefit of hindsight, do you see places where significant improvements could have been made that could have saved the province significant chunks of money?

**MR. CLARKE:** So the contract wasn't the issue, so I would sign the contract. It wasn't the issue. The issue was in the performance thereafter.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** Okay? So (inaudible) –

**MR. HISCOCK:** So what could have been done to address that?

**MR. CLARKE:** – and other issues, as I went through this morning of that. So I'm not going to sit here and pretend to be a productivity expert because I am not, but there's a lot of different things that can be done, and this is an industry problem.

Now, Astaldi had issues themselves though, as I'm sure others have talked about, and is well documented. They had different problems that we had to work with them on, in terms of their structure, their labour management, a whole sort of different things to ensure that they could get their work for us to be as efficient as possible.

Everyone seems to have this mindset that productivity is all about labour agreements and the guy on the tools. That's only one part of it. There is a much broader picture there that affects productivity and there's a lot – it's not a simple concept and, again, I don't pretend to be an expert in the area.

**MR. HISCOCK:** But you were central to the collective agreement process, is that correct, your role?

**MR. CLARKE:** So there was a negotiation team that I put in place for the collective agreements and made sure that those folks were people with extensive experience in that field who had done collective agreements for megaprojects in Newfoundland and elsewhere.

**MR. HISCOCK:** And one of the chief considerations in that would've been – I mean, really, the chief consideration in that would've been ensuring that labour productivity. That would've been the goal –

**MR. CLARKE:** It would've been –

**MR. HISCOCK:** – of the company?

**MR. CLARKE:** – one of them. We had labour – ensuring labour productivity but ensuring labour – there's no labour unrest, shall we say,

that there's an ability to be able to work with the unions. Yeah, you do the best that you can; however, you do have the issue that there's a lot of precedent in that world and there's a lot of things that have to be dealt with and considered.

It's not a matter of us walking in and saying: We're going to change 200 years of construction. That's not how it works.

**MR. HISCOCK:** Okay. I mean – but do you see failures in the collective agreement process that, with the benefit of hindsight again, that that collective agreement could've been structured differently to address some of the productivity concerns ahead of time, before they arose on the site?

**MR. CLARKE:** Relative to what is achievable in the market – and I don't – I think that the agreement at the time was based on what you could best able do. Again, you'd need to talk to others to get details on where specific opportunities are within that. I'm not the best to speak to it.

So, yeah, I'm not sure if that answers your question but ...

**MR. HISCOCK:** I guess I'm surprised to hear which – then, you know, correct me if you think I'm putting words in your mouth or rephrasing, but I'm surprised to hear, given the fact that, you know, many hundreds of millions of dollars over budget, significant labour productivity issues, you know, a failure of the parent company: all the stuff that went on with the Astaldi contract, you know, from day one.

My understanding from you now is that you would've awarded the contract, would've awarded the same contract and would've developed the same collective agreements, even with the benefit of hindsight.

**MR. CLARKE:** Yeah because they weren't – those documents aren't the issue.

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

**MR. CLARKE:** The issue is the actual management of the field and the productivity that goes along with it. As we've talked about – and I know some of the previous reviews that

were done with Grant Thornton and others – the contract was sound, the contract was solid. The company, through the evaluation process, is the same process that used to award other contracts. So that's not where the issue lies, the issue lies in the execution.

**MR. HISCOCK:** Okay but wouldn't the idea behind – I mean, look, the issue is always going to lie, to some degree, in the execution, but that's what you're trying to plan for and build in contingencies in your contract. You're trying to use a contract to ensure that the execution goes as planned, right? That's the idea behind the bid contract in a lot of ways, isn't it?

**MR. CLARKE:** Mm-hmm.

**MR. HISCOCK:** Is to ensure that the owner has some control over the cost of what the contractor is gonna do, that they're able to ensure that they get the productivity and the product at the end of it for the cost that they want.

And that didn't happen here, right? So it is a failure of the contract and the execution in that any failure in the execution looks bad on the contract, in that it wasn't anticipated and it wasn't dealt with ahead of time in the contract. Wouldn't you agree?

**MR. CLARKE:** No, I wouldn't agree with that. So, kind of – again, you're confusing the contract. The execution of the contract itself was solid. So, unless you're saying that we should've covered off somehow the potential that Astaldi was gonna have corporate liquidity challenges due to government issues in Venezuela and Turkey, and the fact that this was gonna bring them down so that they could cover off potential productivity problems, I don't know how to cover that off in a contract. I'm sorry. I don't.

The productivity challenge itself was covered in the contract. They owned it; it was their risk, okay? But, because of the liquidity challenge, we had to step in, because the alternatives would've been worse.

**MR. HISCOCK:** Right.

And that would be for a couple of reasons; one was the faulty evaluation of their liquidity based on a poor risk assessment, I'd say, of strategic

risk in Venezuela and Turkey operations. But then you add the secondary thing, I guess, which is that there weren't enough contingencies; there wasn't enough holdback securities to actually cover the real costs of having to drop them as a contractor, that the factual costs of having to switch contracts wasn't compensated for in the contract.

**MR. CLARKE:** No – yeah, I wouldn't agree with that statement. The security that was in the contract was pretty standard, okay? And, the process that was used to do it was very logical and structured, and I do believe that one of the Grant Thornton reviews aligned with that and said this is standard.

It's not typical to have full security. It can occur in some cases, but to have full security in place on a contract, a large one like that, it comes at an expense, and there's only so much that every contractor is able to put in place for it, so you have to find the right blend. And, in our case, we had the letter of credit –

**MR. HISCOCK:** Mm-hmm.

**MR. CLARKE:** – which is meant to cover off any quick turnaround costs you have for switch out or anything like that if it occurs. It gets you quick cash, so it would cover if you're doing switch. A bond is meant to help you in the event the contractor can't do their work to be able to complete. Then there's a gap of risks, of course, that exists there that the bond companies and liquidity, which is through the bank, can't necessarily cover, so you give yourself a parent guarantee. And, subsequently, the owner, if the parent guarantee can't cover you, is going to have to be prepared to help with that. That's just finding a balance in the full profile of who takes what risk.

**MR. HISCOCK:** Yeah, and, as it worked out – I mean, again, with the benefit of hindsight – I am saying with the benefit of hindsight for a reason, because a lot of this is hard to judge in advance – but with the benefit of hindsight, there ought to have been higher securities there and less reliance on the parent guarantee, because we now realize that Astaldi had significant strategic risks because of the various international territories it was working in: Turkey, Venezuela, right? So, that needed to have been higher not to

rely on the head company guarantee; you needed more securities.

**MR. CLARKE:** Sorry, are you asking me a question or ...?

**MR. HISCOCK:** Yeah. I mean, would you agree? I mean, that's the failure that seems obvious in hindsight.

**MR. CLARKE:** But I just explained to you why that's not really achievable, so that's not the failure.

**MR. HISCOCK:** So, would you say there were no failures on the Astaldi contract from Nalcor's perspective? That that's –

**MR. CLARKE:** No, that's not what I said.

**MR. HISCOCK:** But what were the failures?

**MR. CLARKE:** It was a productivity challenge.

**MR. HISCOCK:** Okay. From Nalcor – on Nalcor, what did – what failures were there of Nalcor on the Astaldi contract?

**MR. CLARKE:** I don't know. The contract itself was solid and was reviewed by multiple parties and said that.

**MR. HISCOCK:** So, you don't see any failures. I just want to make certain.

**MR. CLARKE:** I mean, is the contract perfect? No. But, you're asking me about a question about analysis down inside. I don't have an answer for you.

**MR. HISCOCK:** Okay.

During your interview you noted that Nalcor was very careful about inserting management people with Astaldi in an attempt to compensate for their lack of supervisory skills. I'm wondering if – did you have Astaldi sign a waiver to protect Nalcor from liability from this intrusion on their management and any suggestion that Nalcor was taking over the job? Was there a waiver as part of that?

**MR. CLARKE:** As part of what?

**MR. HISCOCK:** As when you started inserting  
—

**MR. CLARKE:** As part of us facilitating with them?

**MR. HISCOCK:** Yes.

**MR. CLARKE:** No, because we never inserted people. We had meetings, and we worked with them and gave them ideas and were very clear. And there is letter correspondence that would have, as well, made it clear, but we never inserted.

This is a natural part of the construction industry. And you're always — as the owner, you always have to be very careful not to insert yourself to a point where you take over and have owner interference. And it's a natural part of how you have to manage the work, and we didn't. There has been no claim that we were interfering (inaudible) —

**MR. HISCOCK:** Had — there has been no claim in relation to that.

**MR. CLARKE:** There's no — there's been no claim that says, yeah, that we — no successful claim early on or anything. And Astaldi has not made that a big part of their efforts to say that we took over their work, even in their current arbitration.

**MR. HISCOCK:** Okay.

So just to clarify on that point, there was no waiver sought, there was no waiver given and it's your opinion no waiver was needed because it hasn't resulted in an issue.

**MR. CLARKE:** No. And it's a normal part (inaudible) operate, yes.

**MR. HISCOCK:** Okay.

In the winter of 2015 you note that Paul Harrington, Ron Power and some others went to Rome in an effort to get them to pick up the pace of work. I'm wondering why Astaldi wasn't ordered to come to either St. John's or Goose Bay for the purposes of that meeting; why the owner went to Rome rather than have the contractor come to the owner.

**MR. CLARKE:** So there were a lot of different meetings. This wasn't one-off situations; there were multiple meetings that occurred. I have no idea of the number, but there's dozens of meeting that occurred. And in most cases those meetings were in St. John's or in Goose Bay. Sometimes for logistical reasons where we really wanted to make sure that this occurred and they couldn't come to us, we would go to them.

**MR. HISCOCK:** Okay.

As a project — I guess, were there multiple times that you went to — that the project management team or members thereof went to Rome, back and forth? Was that —?

**MR. CLARKE:** There was multiple times over the five years or whatever that that occurred.

**MR. HISCOCK:** As a project manager, did you support the decision to drop SNC as the EPCM contractor and go with the integrated management team?

**MR. CLARKE:** I did.

**MR. HISCOCK:** Okay. Did you have any concerns with that decision being taken after sanction?

**MR. CLARKE:** No.

**MR. HISCOCK:** Did you consider there to be any risk associated with doing this post-sanction? Or that it could cause a peril for the project?

**MR. CLARKE:** There's a disruption effect, yes. That's why we tried so hard to work with them. We didn't want to have to do it, but when you weighed the outcomes — potential outcomes off, it made sense at the time.

**MR. HISCOCK:** Had Nalcor not proceeded on the basis of IMT, what role would you have played in the project?

**MR. CLARKE:** I would have the same role.

**MR. HISCOCK:** So would your role have changed any upon it becoming an integrated management team than it was beforehand?

**MR. CLARKE:** No, not really. No. I would have been more dependent on SNC people than I was on – with the change after they weren't necessarily all SNC people. My role really hadn't – wouldn't have changed.

**MR. HISCOCK:** So, really the only difference would have been that there were fewer SNC contractors under you afterwards. Is that ...?

**MR. CLARKE:** There was fewer SNC staff.

**MR. HISCOCK:** Yeah.

**MR. CLARKE:** Yeah.

**MR. HISCOCK:** Okay.

Do you think it took you from more of a judging role or a dispassionate role of viewing the contractor to be more hands-on, more – brought you into the project and made it a little less dispassionate in terms of your view of the project, being able to judge the contractor from a distance perhaps?

**MR. CLARKE:** No. Were we more involved? Yes –

**MR. HISCOCK:** Mm-hmm.

**MR. CLARKE:** – as a natural part of that. But dispassionate? I'm sorry, I don't quite understand what you're –

**MR. HISCOCK:** Well, I mean, I guess you were – at one point, you were very much working from the owner's perspective, and, you know, the owner was sitting back, I guess, on – from the execution, wasn't deeply involved in the execution part of it – that was the contractor's role, and it became – obviously, under the integrated approach, that you were all involved much more in the execution side of it.

**MR. CLARKE:** Well, it's not really that simple.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** You're involved anyway –

**MR. HISCOCK:** Yeah.

**MR. CLARKE:** – okay? So, it just means now you have to get into more – a few more of the details. You're going to be involved anyway, right, with your main contractors – that's a part of working within SNC or you're gonna be doing it in that integrated team piece. So, a minor difference, to be honest with you. And I worked both models.

**MR. HISCOCK:** Okay. And, as a member of the project management team, you would have been aware, I assume, that there was no comprehensive review of the estimate –

**MR. CLARKE:** Hmm.

**MR. HISCOCK:** – done at a detailed level. Is that correct?

**MR. CLARKE:** No, I'm not aware of what you're –

**MR. HISCOCK:** Okay.

**MR. CLARKE:** – speaking. My understanding was that the estimate was done by SNC and that it was checked by multiple independent parties. So, that's – that's all of my awareness, I mean.

**MR. HISCOCK:** Okay. 'Cause evidence has been provided of this Inquiry, that Nalcor's strenuously opposed the deep dive into the estimates and deprived the consulting – consultants, including MHI, Validation Estimating, and Westney, access to estimates, except at a summary level. You weren't part of those discussions?

**MR. CLARKE:** No, no.

**MR. HISCOCK:** The Inquiry has heard evidence that reports that certain consultant, including MHI, which the government especially relied heavily upon to sanction the project, that they were altered or suppressed at Nalcor's request and that Nalcor requested the consultants to alter their findings to a more favourable tone supporting the project.

**MR. SIMMONS:** Commissioner, I'm going to object to that questions. Characterizations of evidence that's much more complex and detailed doesn't necessarily come to conclusions in the way they're being expressed to this witness. So,

I'm going to object to the way that question is put.

**THE COMMISSIONER:** Mr. Hiscock?

**MR. HISCOCK:** I don't think that there's much question that the MHI report, in particular, was altered at the request of Nalcor. I would like to know if the witness –

**THE COMMISSIONER:** I think –

**MR. HISCOCK:** – knew about that or –

**THE COMMISSIONER:** – I think there's sufficient evidence before the Commission to make a suggestion that as a result of Nalcor's commentary or whatever, there were changes made to the MHI report. So, I have no problem with you putting that to him. I think where your question went a little astray was that you took it farther than that when you initially asked the question. And I think I would have had problems with regards to the conclusions you were drawing from the evidence, based upon the way you asked that question, but I've no problem with the question being asked about – of this witness, whether or not he was aware that there were – there was involvement by Nalcor – the project management team members to alter the MHI report.

**MR. HISCOCK:** And I guess that's my question to you, which is in relation to MHI report: Were you aware that those discussions were ongoing between MHI and Nalcor, that Nalcor had – was influencing the supposedly independent report?

**MR. CLARKE:** So, I don't specifically remember the MHI report. I can just tell you that I know that we commented on reports as we were asked to comment on reports where they're put to us, and it was very common. And every project I've been on third party reports, they'd ask you to comment from a factual perspective and provide input.

**MR. HISCOCK:** Okay, so –

**MR. CLARKE:** So.

**MR. HISCOCK:** – you can't say in relation to MHI, which reports, specifically, are you thinking on that you made the commentary on?

**MR. CLARKE:** I'm not thinking of any specific – I'm just saying that at times, there were reports and we'd be asked to do checks or do a review. I really can't think of any specific one right now, but I just know it's common, it's what we do in the industry when there's a third party review.

**MR. HISCOCK:** Okay, do –?

**MR. CLARKE:** Typically, the third parties will ask you as well, right, to do a check on their report.

**MR. HISCOCK:** So, do you have any memory of having made any comment whatsoever in relation to the MHI report?

**MR. CLARKE:** I don't. That doesn't mean I didn't, but I don't remember.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** Sorry.

**MR. HISCOCK:** Do you remember reviewing the MHI report prior to its final version?

**MR. CLARKE:** I don't.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** Sorry.

**MR. HISCOCK:** Validation Estimating – do you remember interacting – or Westney – do you remember commenting, specifically, on those reports prior to Westney, in particular – I guess prior to the final version of it?

**MR. CLARKE:** Which Westney – I'm sorry. So, Validation Estimating, no, I don't.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** I wasn't apart of the estimate. We did a lot of work with Westney –

**MR. HISCOCK:** Yeah.



**MR. CLARKE:** – right, on different functions and areas. And I worked with them on the Astaldi files, a lot, as a part of that and with the team, and giving them the information, working with them to understand so they can –

**MR. HISCOCK:** Okay, 'cause –

**MR. CLARKE:** – (inaudible).

**MR. HISCOCK:** – there would've been fair involvement with Westney on the Astaldi piece.

**MR. CLARKE:** Yeah.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** There – there, we were looking for advice, direct advice as to how – what do we think; where do we think this could go. But in the end, obviously, the decisions were ours.

**MR. HISCOCK:** When you reviewed the final reports of the either – all – MHI, 'cause I think Westney rejected the suggestion of Nalcor's – Nalcor's suggestion. So, let's look at MHI, which does appear – anyways, to some of us – to have been altered, based on suggestions by Nalcor.

Was there anything – were you ever directly – when you saw that final report, do you recognize any of your commentary or your suggestions having made its way in there?

**MR. CLARKE:** I don't even remember if I commented on it. As I've told you before, I do not remember the MHI report work. It doesn't mean I didn't, but I honestly do not remember. I don't, sorry.

**MR. HISCOCK:** What was your – do you remember when you first realized that MHI had altered the reports, based on Nalcor's suggestions?

**MR. CLARKE:** I really don't –

**MR. SIMMONS:** Commissioner?

**MR. CLARKE:** – I don't remember the –

**MR. SIMMONS:** Commissioner, the –

**MR. CLARKE:** – MHI reports.

**THE COMMISSIONER:** (Inaudible.)

**MR. CLARKE:** I'm sorry, Sir.

**MR. SIMMONS:** Commissioner, the question presumes that Mr. Clarke remembers realizing that there had been the alterations to the report. Now, he said he doesn't remember any involvement in it, so this – I think that point should be established first, before we could move on to the conclusory question.

**THE COMMISSIONER:** Now I think, maybe, we should do that. I think there's a way to – I think I understand where you're going, Mr. Hiscock, with this. And so, you know, you might – without making too many suggestions about how you ask your questions, but you might even want to refer to him as is he aware of the evidence before the Commission, related to the MHI report; and when he heard that, did he have any view on it.

**MR. HISCOCK:** That was – that – where I was going next if it was – if – did you realize prior – I mean, have you heard the evidence in this Inquiry, that suggested that the reports were altered or were you aware of that before today?

**MR. CLARKE:** No.

**MR. HISCOCK:** That's okay.

**MR. CLARKE:** Sorry. I'm – I'm not a part of the project much anymore and I – quite honestly, I'm busy at other things and I'm not aware. Sorry.

**MR. HISCOCK:** Mr. Clarke, the project sanction estimate of \$6.2 billion excluding the financing cost, was an executive decision, but it was one that the project management team supported. Is that correct?

**MR. CLARKE:** In general? Sorry, I don't understand, really, the question.

**MR. HISCOCK:** The project sanction had an estimated cost associated with it that was put forward and it was a \$6.2-billion figure. My understanding is that arriving at that figure and that the number to be presented would be 6.2

billion was – even though that was basically – as decision, it was an executive-level decision. My understanding, as well, is that it is a decision of the executive that was fully supported by the project management team. You being on the project management team, I wanna know if that's your understanding as well.

**MR. CLARKE:** Again, I'm not sure exactly – I mean you're asking support – 'cause you have to understand how everything works in there, I had nothing to do with the estimate. So, did I support the decision in the end to say, let's do the project? That's not my call.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** So ...

**MR. HISCOCK:** You had spoke about the problems with morale and, I guess, that became especially significant following the 2015 election and during that period in 2015, and especially 2016, I think you note it as a particularly bad year for it.

Do you feel that the criticism was justified, that the team was receiving at that period?

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

**MR. HISCOCK:** Okay.

**MR. CLARKE:** There were challenges with the project. That's – no one is in denial on that and no one is happy where the project has ended up, obviously, including the project team. But as I stated before, the bulk of the things that occurred are not abnormal in construction, and the key is do not panic; the key is for everyone to work together and be able to work through what, in many cases, are outlier material issues that project management team can't control. You need support for it. So I don't feel that the approach that was taken in many cases and the statements that were taken without consultation and understanding of what occurred – I don't feel that they were appropriate.

**MR. HISCOCK:** Was it the criticism of the public towards the project that was most bothersome? Or was it the criticism from the shareholder of the project that was most bothersome?

**MR. CLARKE:** The public you could understand to some degree, I guess, but it is probably the nature, overall, of the way that the media portrayed certain things, and then when it got specific and sort of personal comments, shall we say, about the team and how things were going, and then there was a lot misinformation getting thrown out there. That resulted in a lot attacks and challenges that were – as it turned out were not founded and – but it just made the job incredible difficult to do.

**MR. HISCOCK:** Who do you think the source of that misinformation that you are pointing out was?

**MR. CLARKE:** I don't know to be quite honest with you. I think it just a lot of conjecture by people and a lot of assumptions and so –

**MR. HISCOCK:** Can you be specific about some of the misinformation that you are talking about that was upsetting to the projected management team at the time? What were – what was the public understanding that was false?

**MR. CLARKE:** So, there were also of generalities about the project team's capabilities. There was another run gone back in by SNC, and there was – you know, that was the cause of the project issues. I mean, there was a whole gamut of different things. I can't think of them all of the top of my head, but it was ongoing and non-stop for quite a period.

**MR. HISCOCK:** In your interview, you note that government, at one time, wanted to dismiss the entire project manager team. Is that correct?

**MR. CLARKE:** That is what we were told.

**MR. HISCOCK:** Okay. And your position would have been one of those, obviously, as part of the project management team, that they were talking about.

**MR. CLARKE:** Mm-hmm.

**MR. HISCOCK:** Did that cause disruption in your work and the team's work at the time.

**MR. CLARKE:** It was just one of the example of what you just asked me about, of – that

creates a problem obviously. You know, some people say: Okay, I've had enough. I'll just leave. And – but it is very difficult to execute and do a job for, I guess, an owner who is essentially attacking you. So, it makes it very challenging. And Mr. Marshall – I was around at that time, and he held everybody together, which was very good – kept things calm and said: You know what? I support you. We've got your back. Let's keep it going.

**MR. HISCOCK:** All right.

**MR. CLARKE:** So, we – I did for a while. Some didn't. And eventually I had enough of it and decided it was time to go do something else.

**MR. HISCOCK:** Yeah. I had a few other questions and they're not – just a couple left but they're going to be a little bit random in terms of the jumping around a bit. Was Astaldi pre-qualified to bid on the Site C work? Do you know?

**MR. CLARKE:** I know they were interested in it, but I don't know if they were – in the end – I don't know – I know they – I know that they were interested because they had talked about it.

**MR. HISCOCK:** But you don't know if they were pre-qualified?

**MR. CLARKE:** I don't – I can't say if they were, no.

**MR. HISCOCK:** And you don't know when they made their bid or if they made a bid. Is that correct?

**MR. CLARKE:** No, I don't remember. Something tells – I know there was conversations because they had talked about the fact they were interested. We had referenced it, that we knew the guys at BC Hydro – so, you know, this – you need to get your performance up here if you're hoping to have any type of reference or knowledge. And I did have a couple of calls from BC Hydro at one point about them but I don't know where they ended up after. I don't.

**MR. HISCOCK:** And the – the question of references arose during that discussion of the Site C work, correct?

**MR. CLARKE:** Yeah. There was. Yeah.

**MR. HISCOCK:** Okay. And what was that discussion around references for Astaldi?

**MR. CLARKE:** It was very typical. Construction companies consistently look for references from different clients – say, look, we want to go do this. Can you please – can we use you as a reference? They have a conversation. So, I don't remember if they specifically asked for one. I don't – I really can't remember. I remember there was a conversation about the fact that they were looking at Site C.

**MR. HISCOCK:** What – what was your opinion on that or what was the discussion about the references and Nalcor's position on that?

**MR. CLARKE:** I would have said to them, for sure, we got to make sure that things are going well here or, you know, there's no way I'm going to be able to give you the reference, obviously, so let's get things moving at the time.

**MR. HISCOCK:** Okay. But you did say you spoke to the people at BC Hydro.

**MR. CLARKE:** They had called a couple of times asking questions about Astaldi and how things were going, and we did it regularly with the other large projects in the country as well. And we'd explained where things were and what was going on. I actually have no idea if they ever got on a list or if they – I don't know. I have no idea.

**MR. HISCOCK:** Was a reference ever given to the best of your knowledge?

**MR. CLARKE:** Not by me.

**MR. HISCOCK:** To the best of your knowledge, did Nalcor ever give a reference to Astaldi for (inaudible)?

**MR. CLARKE:** No. Not to my knowledge. No.

**MR. HISCOCK:** Okay.

Can I ask who is David Clark and what his role was?

**MR. CLARKE:** David Clark was the labour relations person who was assigned – he was underneath me and he negotiated the agreements and still works with the project now –

**MR. HISCOCK:** Okay.

**MR. CLARKE:** – administering the labour agreements as a labour lawyer.

**MR. HISCOCK:** And how long has he been with the project, sorry?

**MR. CLARKE:** I don't remember when he came on, sorry. It would have been late 2000s, I guess.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** I don't remember the exact time, probably '08 or '09 or something.

**MR. HISCOCK:** Do you think that the contractors for Muskrat Falls – and Astaldi would jump out as the main one. Do you think they were given sufficient information from Nalcor? And I am thinking specifically about the estimates and the assumptions that Nalcor had in terms of grounding its own estimates internally.

**MR. CLARKE:** You'd never – for hard-dollar contracts and what you were working, you would never share your estimate information with the contractor, just like they won't give you the nuts and bolts of their makeup.

**MR. HISCOCK:** My understanding is one of the reasons that it was understood that Astaldi was so much lower than the two North American or Canadian bidders on this project was that there was a very tight labour market, a very tight megaprojects market at that time in North America. And then this issue of a tight labour market for the trades crops up with a lot of the witnesses we have heard from in the Inquiry. To your knowledge, was there every any consideration to delaying the project by a couple of years to, kind of, hit a slump in that labour market where you might have saved that half billion or whatever on some of these contracts that the markup seems to be because of?

**MR. CLARKE:** Not to my knowledge, and that would have been driven by – a decision like that

would have to be driven by a full financial model, not just by just a decision on where labour sits.

**MR. HISCOCK:** To the best of your knowledge, there was no discussion amongst –

**MR. CLARKE:** Not to my knowledge.

**MR. HISCOCK:** – the project team about a delay for labour purposes?

**MR. CLARKE:** That wouldn't have been our call.

**MR. HISCOCK:** Okay.

**MR. CLARKE:** To delay the project, that wouldn't have been our call.

**MR. HISCOCK:** Okay. How many grievances have been – have there been under the collective agreements that you negotiated or that you were – that your team negotiated?

**MR. CLARKE:** I have no idea. I handed that all over to people years back. I have no idea.

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

**THE COMMISSIONER:** Thank you very much.

Edmund Martin.

**MR. SMITH:** Good day, Mr. Clarke, Harold Smith for Edmund Martin. I only have a few clarification questions, or at least clarification in my mind. And I'll try and be brief. With respect to the collective agreements that were negotiated, you put a team in place; I think you described the team as Mr. Clark, Ms. Rowsell and a few others.

**MR. CLARKE:** Yeah.

**MR. SMITH:** In order for them to negotiate three collective agreements, was there any legislative changes necessary?

**MR. CLARKE:** I believe there was, but sorry my recollection is not totally clear on it. But there may have been – I don't know if it was a

necessary legislative change, but there was a lot of discussion with the Labour Relations office, in this very building, about the approach we were going to take and to make sure it could be fit in. I can't remember in the end if there actually had to be a change, sorry.

**MR. SMITH:** In relation to those collective agreements, were they all done under the special project legislation?

**MR. CLARKE:** Yes, they were.

**MR. SMITH:** Okay.

So if the special project legislation prior to June of 2012 only allowed for a special project legislation for the project, you'd have to have a change in legislation in order to have special projects for the clearing contracts and the wall-to-wall clearing, which is the labourers, and the wall-to-wall IBEW, which are the – which is the transmission facilities.

**MR. CLARKE:** So, in theory, yes.

**MR. SMITH:** Okay.

**MR. CLARKE:** But there was a lot of discussion around how that could be done –

**MR. SMITH:** Yeah.

**MR. CLARKE:** – and whether the geographic areas could be carved out within the legislation, and I just – I can't remember if there was an adjustment made after or not.

**MR. SMITH:** I suggest to you that the legislation was changed in June of 2012 –

**MR. CLARKE:** Okay.

**MR. SMITH:** – to facilitate, I assume, your project.

**MR. CLARKE:** It would've been and yes, because there was discussion around it, like I said.

**MR. SMITH:** Now, when negotiating those collective agreements, were you a part of the policy group that sort of set the policy for the negotiators to do their work?

**MR. CLARKE:** The principles, yes.

**MR. SMITH:** Yeah.

**MR. CLARKE:** So they would've laid out – they did all the work. They laid out what our main goals were based on the expertise, we – the team worked together, they did the effort. We aligned, we had – even the estimators would've had a look to see that things were – what we were going for. And so those main principles we would've gotten aligned with, presented to management and they would've been presented to me, to be quite honest. And we would've said: Okay, great. Here we go. Let's go for this.

Then in terms of how the agreements were negotiated, yes, it was a part of thinking about that strategy and taking a principle-based approach, as I referenced this morning.

**MR. SMITH:** And we heard from Commission counsel this morning – or reviewed a number of the goals and objectives and I think that you said that some were achieved and some were not.

**MR. CLARKE:** Yeah, and I just – I don't remember the specifics. It would take someone else to be able to really outline what the deltas were.

**MR. SMITH:** Okay. And in specifics, there was a discussion about what's referred to as a composite crew.

**MR. CLARKE:** Mm-hmm.

**MR. SMITH:** And I believe we came to the conclusion, reading the documents that was produced by Commission counsel, that a composite crew was in fact created, or allowed to be created under –

**MR. CLARKE:** Allowed to be created, yes.

**MR. SMITH:** – under the collective agreement.

**MR. CLARKE:** Yeah.

**MR. SMITH:** Do you have any knowledge as to whether or not the composite crews were used? And, if so, what success they had?

**MR. CLARKE:** So they were used by some of the contractors. I can't tell you exactly which ones. Again, Scott O'Brien would have a better idea of that, Ron – David Clark would know exactly who did what and when. And I know for some of the contractors it took a bit more time. I know Astaldi got using them, but they were a little slow getting off the mark with it.

**MR. SMITH:** Okay. So what was the success of those who did use?

**MR. CLARKE:** I can't really –

**MR. SMITH:** You don't know?

**MR. CLARKE:** In terms of, yeah, what the true value is, I don't know. I know that the composite crewing, in general, when you get it in place, it's good, it works well.

**MR. SMITH:** But that was an attempt, at least, to improve productivity –

**MR. CLARKE:** Yeah, absolutely, it was an attempt to do so, yeah, within the remits of the system that you're having to work in.

**MR. SMITH:** Well, that gives me pause to think that perhaps when you said to counsel here today that execution was the issue, not necessarily what the contract said.

**MR. CLARKE:** Mm-hmm.

**MR. SMITH:** The execution is whether or not a contractor actually used that to improve productivity.

**MR. CLARKE:** Yeah, we're not down into that with them. We monitor work and try to support them, but it's up to them to use it, it really is. It has to be. And in most of the contracts, as was referenced, if you're in unit rate and lump sums, we're not in the middle of their business.

**MR. SMITH:** I don't think it was mentioned, but when did you specifically leave the project?

**MR. CLARKE:** So in the fall of – I sort of transitioned out. So in the fall, late fall of 2017 I went to sort of part-time. And then going into '18 by May, probably by about a year ago I was really out, to be quite honest, at that point, and –

**MR. SMITH:** Okay.

Now, you mentioned that you suspected that SNC were attempting to get or regain the work to the detriment of the project management team after they were, essentially, evolved out through the integrated team.

**MR. CLARKE:** Mm-hmm.

**MR. SMITH:** Okay.

Could you identify any particular milestones that we could investigate to see SNC – or whether SNC were in fact trying to undermine the project management team?

**MR. CLARKE:** Well, of course, as we are talking through it was – (inaudible) efforts of them it was still going on, as I referenced this morning, in different meetings we could see and that they were still attempting to do this. In my pre-interview there was a reference made to an email that Scott Thon had sent to Gilbert at the time. So I'm not sure the exact point, but it was after we had made the decision to try and get back in and they were referencing their project management team and different exposures, and so I remember that.

As well, obviously, the – when the government change had occurred, SNC came back very hard. They saw it as an opportunity, obviously. And I think they were probably a part of the messaging about the quality of the project management team, but I can't prove that, naturally. But they did come in and meet with Stan and put a proposal – asked about a proposal in to take the project back over, which Stan heard and rejected.

So that was just more examples, and at that time, of course, they're still working with us on the project, but behind the scenes the same people I was dealing with at a VP level were over talking to whoever. I have no idea if they met with government or anything, to be honest with you. I've heard different things, but I can't speak to it personally, so ...

**MR. SMITH:** Would these be generally known only to you, or would they be known generally amongst the members of the project team?

**MR. CLARKE:** No, it's known, yeah, yeah, yeah. No, it's known fully, yeah, yeah.

**MR. SMITH:** And would you say that had a positive effect on the morale of the project team?

**MR. CLARKE:** Naturally not, 'cause it's another distraction. It's something else you got to go deal with, right? When the people, yet again, who are trying – they're supposed to be supporting you, even though they're in a different role, they're still a very – you're a very large client of theirs. They're your designer of record. And they see the opportunity with a government change, so they decide they're going to have another end run. And it's just not atypical, I guess, in some cases, but very challenging.

**MR. SMITH:** Thank you, Sir.

That's all the questions I have.

**THE COMMISSIONER:** Thank you.

Kathy Dunderdale is not present.

Former Provincial Government Officials.

**MR. J. KING:** No questions, Commissioner.

**THE COMMISSIONER:** Julia Mullaley, Charles Bown, not present.

Robert Thompson.

Consumer Advocate.

**MR. HOGAN:** Afternoon, Mr. Clarke. My name is John Hogan; I'm counsel for the Consumer Advocate.

**MR. CLARKE:** Mm-hmm.

**MR. HOGAN:** Mr. Clarke, I just want to refer to you something Mr. Ron Power said yesterday. He said that you were – maybe not yesterday, but during his evidence over the last couple of days – that you were heavily involved with the financial close. Is that correct?

**MR. CLARKE:** That'd be an overstatement. I would –

**MR. HOGAN:** Okay, maybe he didn't say heavily, he said you were involved. So what was your involvement with financial close?

**MR. CLARKE:** I would have – it was minimal, to be quite honest with you, in my perspective. I'm surprised Ron said that. It was probably relative, because Ron wouldn't have been involved in it at all. I would've had ties to the finance folks with Jim Meaney and them from the perspective if there was something they needed from the project to be able to explain we were executing, I would've been feeding that over, especially on things like contracting approaches and stuff like that.

**MR. HOGAN:** Providing information to the finance team?

**MR. CLARKE:** Yeah and predominantly, though, my involvement was very early in the exercises when they were doing the reviews with the likes of Dun & Bradstreet and so the rating agencies, I would've been involved with those presentations. But, yeah, I personally had no direct involvement in financial close.

**MR. HOGAN:** The issue I want to ask you about or get a little, talk a little bit further about is that there's obviously delays in awarding the Astaldi contract, due to the fact that financial close had not taken place, correct? That's fair to say?

**MR. CLARKE:** Yes.

**MR. HOGAN:** And sanction had taken place a year prior, correct?

**MR. CLARKE:** Approximate, oh yeah.

**MR. HOGAN:** Okay, approximate.

**MR. CLARKE:** I don't remember the exact dates, I'm sorry.

**MR. HOGAN:** Sanction took place well ahead of –

**MR. CLARKE:** Yeah.

**MR. HOGAN:** – financial close?

**MR. CLARKE:** Yeah, yeah, yeah, which is standard. That's typical.

**MR. HOGAN:** Well, that's what I want to ask you about. Is that typical?

**MR. CLARKE:** Yeah, that is. That's fairly typical. Financial close – it depends on each company, I guess, but financial close comes at a point when you have all of your agreements that they'd want, the material agreements, being business agreements, contracts, everything – you have all those in place before they'll give you a full release.

A lot of times a project decision is taken earlier than that coming at a feed where you have enough definition, you know where you're going, and people are comfortable with the estimates and they'll take a decision to go with the project. And there's another stopgap is if financial close doesn't happen for some reason then, obviously, that's where things stop. So it is common. I'm involved with other, something else right now, that that's the exact thing that we're actually going to do.

**MR. HOGAN:** Okay, so financial close is another – it's a stopgap. It's another opportunity. It's common for that to be considered a time when people can say: Do we proceed or not proceed?

**MR. CLARKE:** Well, the decision is about do you have your financing. If you don't get your financing you don't proceed. If you get your financing, typically, you proceed.

**MR. HOGAN:** Okay, well, was it was discussed at all – obviously, Astaldi is supposed to be further ahead in work in November in 2013. Is that fair to say?

**MR. CLARKE:** Yeah, the original intent would've been the contract was awarded earlier but –

**MR. HOGAN:** Okay, and the contract was not awarded because there –

**MR. CLARKE:** – it wasn't awarded.

**MR. HOGAN:** – was no financial close.

**MR. CLARKE:** Right. So, obviously, things did not progress naturally. That was known.

**MR. HOGAN:** So was there any discussion that – well, I'll put it this way: Was there any discussion that there should be a delay in putting Astaldi on site prior to September, October 2013 because the contract hadn't been awarded, because financial close hadn't taken place yet?

**MR. CLARKE:** Sorry, I – repeat the question. Sorry, I didn't exactly understand what you were asking.

**MR. HOGAN:** Any discussion about delaying Astaldi getting on site to start work? It seems –

**MR. CLARKE:** Yes. Yes.

**MR. HOGAN:** Okay, what's the discussion?

**MR. CLARKE:** That's why where there was a Limited Notice to Proceed, to just get them to do some sort of preparatory things.

**MR. HOGAN:** Okay, but then they were –

**MR. CLARKE:** Yeah.

**MR. HOGAN:** – full on expected to have everything going by November, December 2013.

**MR. CLARKE:** When we awarded the contract, at that point they were expected to go and go hard (inaudible).

**MR. HOGAN:** We've heard some evidence that starting the ICS at that point of the year was really what sort of created the downward spiral to the ICS not being successful.

**MR. CLARKE:** I'm not a construction expert. I've heard similar statements made by people, right – but, yeah.

**MR. HOGAN:** Well, what's your opinion on that –

**MR. CLARKE:** Again, I'm not a –

**MR. HOGAN:** – statement?

**MR. CLARKE:** I'm not the construction expert, but doing –



**MR. HOGAN:** No, but you were charged – you were –

**MR. CLARKE:** – it in the winter, versus doing it in the summer is going to be harder. That’s fact.

**MR. HOGAN:** Okay.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** So how much of a concern was it to you starting that project, that contract in the winter as opposed to the spring or summer?

**MR. CLARKE:** No, because they had to do the design of the ICS structure first was my assumption, and they had to order the materials and get in and build. So I’m dependent – from my perspective I’m looking at the commercial aspects, the contract and I’m dependent on looking to the construction and technical folks. I’m not the person –

**MR. HOGAN:** Whether they could do it or not do it.

**MR. CLARKE:** I’m not in a position to call that out as to whether it can or can’t be done, right, so ...

**MR. HOGAN:** Okay.

Were you aware of any discussions about whether it could or could not be done, or was that – were you not involved at all?

**MR. CLARKE:** There were a lot of general discussions at the time about where they were and how are things going to work. And so there were questions about making sure that Astaldi were comfortable that they were going to be able to achieve this. And I was in those discussions with Astaldi at a very high level and asked the questions right to their CEO of Astaldi Canada.

You know, so are these dates still good – are we still good because, you know, we’re a couple of months off where we talked about. And their response back in the end was, yes, we’re good. And I said, well, if you’re sure, because we delayed where we said we’re going to be, then we need a waiver from you to make sure that there’s no contractual issue here in the future. To

which they agreed and they signed off on the waiver and off everybody went.

So from my perspective it was all good. The paper covered us and the construction guys; it was their job to deliver –

**MR. HOGAN:** Yeah, well, it’s the last question I have, then I’ll move on from that. Did you feel or was there any discussion that there was a rush to get Astaldi going and start, rather than wait? Or was everybody satisfied that they could get the job done on time because of when they were going on, regardless of when they were going on.

**MR. CLARKE:** Sorry, I don’t quite understand the question. Is there a rush to get them going or – I don’t understand the question.

**MR. HOGAN:** Was there any discussion –

**MR. CLARKE:** Yeah.

**MR. HOGAN:** – that there was a rush to have Astaldi start work?

**MR. CLARKE:** There was a general urgency to push, to get going, obviously, but that’s construction. That’s the – you know, let’s go, let’s go and everyone knew that we would love to have been starting earlier, so the key was get them moving.

**MR. HOGAN:** But did that urgency create risk or was it just urgent to get started? You see the difference, right?

**MR. CLARKE:** I don’t think the urgency created risk, no. That’s good; to get the push on and make sure everyone’s focused to get finished.

**MR. HOGAN:** Okay.

During your interview you talked about comparing the costs of Muskrat Falls to other projects.

**MR. CLARKE:** Mm-hmm.

**MR. HOGAN:** Do you recall being asked about that or giving evidence about that?

**MR. CLARKE:** Mm-hmm.

**MR. HOGAN:** So I'm not going to be able to necessarily say all these names, but you said you had compared it to other – done analysis on other projects, Keeyask, Site C, La Romaine.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** Do you know the other ones? I'm going to say them wrong.

**MR. CLARKE:** It was Keeyask, Site C, La Romaine, Mactaquac and Lower Mattagami. I think that was it.

**MR. HOGAN:** Wuskwatim?

**MR. CLARKE:** Wuskwatim. Okay, yeah.

**MR. HOGAN:** Yeah.

And did you do that analysis?

**MR. CLARKE:** I, with others. I collected the information from the other utilities and it was just, it's a simple calculation of – I didn't do the spreadsheet, but I got the information through my contacts. And I had the guys –

**MR. HOGAN:** And what was the simple –

**MR. CLARKE:** – do the spreadsheet.

**MR. HOGAN:** – calculation, just so the Commissioner is aware?

**MR. CLARKE:** So, essentially, take the capital cost of the generation site and essentially look at how many terawatt hours they're producing – or it might've been just straight megawatts, I think, on that sheet. And, based on that, you look at a cost per megawatt for capital cost.

**MR. HOGAN:** And when was this done?

**MR. CLARKE:** This was done – I think it was done for the Grant Thornton presentations, but I can't say for certain.

**MR. HOGAN:** For the presentation?

**MR. CLARKE:** Yeah.

**MR. HOGAN:** Okay, so this wasn't part of an analysis going into the project. This was done after.

**MR. CLARKE:** No, this was way – yeah, this was way after in terms of – yeah –

**MR. HOGAN:** Okay, and what did you –

**MR. CLARKE:** – by the outcomes.

**MR. HOGAN:** What did the analysis show?

**MR. CLARKE:** It showed that for generation, specifically – because that's all it was done on, generation – that Muskrat Falls is in the middle of the pack with those projects in terms of what your cost per – dollars per megawatt from a capital efficiency perspective would be.

**MR. HOGAN:** Middle of the pack of those six?

**MR. CLARKE:** Yeah, it was in the middle of the pack, yeah.

**MR. HOGAN:** And what capital cost would you have used at that point in time? Do you recall?

**MR. CLARKE:** Well, if it – last year we would've used 10.1 – sorry, would've used the portion of the 10.1 for the generation.

**MR. HOGAN:** Yeah.

**MR. CLARKE:** Yeah, 'cause it's purely – it's a purely a generation comparison.

**MR. HOGAN:** Okay, thank you.

Just back to the SNC estimate for the hours.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** And you mentioned earlier this morning, one of the reasons that you were seeing that the North American bids were higher than the Astaldi bid, for example, was because of the hot North American market. Is that – that's correct? That's what you said?

**MR. CLARKE:** Yeah, and things, the feedback we had from the market at the time was that

things were busy so they weren't necessarily hungry.

**MR. HOGAN:** That's what I'm asking, the feedback. So what actual analysis did you do to say, okay, look, these are – this is the reason that the North American bids are higher? Was it anecdotal? Or was there actual reports or documents or any analysis done?

**MR. CLARKE:** No, because we wouldn't have been able to tell why their bids were higher, 'cause we didn't have the way their numbers were put together in extreme detail in the way these things come in, right? We're looking for prices. We're not getting the detail to be able to analyze where their (inaudible) –

**MR. HOGAN:** No, but I understood that you –

**MR. CLARKE:** – costs.

**MR. HOGAN:** – your thinking was that the bids were higher because of the hot North American market, as opposed to –

**MR. CLARKE:** Exactly.

**MR. HOGAN:** – the European bids.

**MR. CLARKE:** Yeah, yeah.

**MR. HOGAN:** So my question is, where did that information come from? Was it anecdotal or were there (inaudible) –?

**MR. CLARKE:** It was based on industry experience and where we were and the feedback from some of those North American contractors.

**MR. HOGAN:** Okay.

**MR. CLARKE:** Right?

**MR. HOGAN:** So anecdotal.

**MR. CLARKE:** So we understood.

**MR. HOGAN:** Talking to people.

**MR. CLARKE:** If that's purely what anecdotal is. It was in discussions and based on experience.

**MR. HOGAN:** Okay.

And when you did get the bids in and – you were comfortable that Astaldi could do it because the SNC estimate was lower, right?

**MR. CLARKE:** Yes, that was one of the factors I discussed this morning, yes.

**MR. HOGAN:** Yeah, exactly. So my question is, though, was it ever discussed that even though you were comfortable with it, maybe you should get another estimate because there was such a gap? I know you said you were comfortable with SNC's estimate, but my question is, was there a discussion about getting another estimate?

**MR. CLARKE:** Not, no, not –

**MR. HOGAN:** No.

**MR. CLARKE:** – not by me. There was no discussion with another estimates, and there was other reasons why we were comfortable, so.

**MR. HOGAN:** Okay. What other reasons?

**MR. CLARKE:** All right. So I went through this morning in that it wasn't just that that estimate was at \$800 million and their bid was at 1.1; it was the fact that that same estimate was used (inaudible) across the project and the initial bids coming in on the bulk excavation came in at or below. So right away that tells you the estimate is in a good place, right? So that's one –

**MR. HOGAN:** Nothing in addition to what you said –

**MR. CLARKE:** – that's one example.

**MR. HOGAN:** – this morning, no?

**MR. CLARKE:** I don't think so. I'm not sure. Yeah, I don't think so.

The hours on the bids, right? So we – 'cause it wasn't just one bid. Salini was in the same position, the hours on those bids – the initial hours submitted by Aecon were the same, which told us that they just built in a lot of risk on top of their pricing because they weren't overly hungry. So, there was a few points like that that

just confirmed and reaffirmed what we were seeing.

**MR. HOGAN:** Okay, and it came up this morning, too, that the lenders wanted large contract packages, correct?

**MR. CLARKE:** The lenders, the financing industry in general, that's their propensity.

**MR. HOGAN:** Okay.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** And we'd heard that a few times before, but no one actually knew – I've asked that a few times – nobody knew why. Can you say why?

**MR. CLARKE:** Why the lenders like it that way?

**MR. HOGAN:** Yeah.

**MR. CLARKE:** Yeah, okay, so they like – typically, they like to see or feel that everything is wrapped up into one package so they can get a full guarantee on production. And this is a headspace they have. And as well, there's a sense, a general sense, in folks who are not in the construction industry that interfaces are a bad thing.

**MR. HOGAN:** Less people –

**MR. CLARKE:** Okay.

**MR. HOGAN:** – is less complicated.

**MR. CLARKE:** It's just – yeah, well less interfaces in between contracts. There's a belief that that creates a lot of turmoil and strife. And to some degree, that is correct. If you have too many packages, the answer is you need the right size and you need to do the proper analyses I talked about this morning, which is covered off in one of the Grant Thornton decks, in order to understand what appropriate interfaces are to help you arrive at the appropriate-size contracts.

**MR. HOGAN:** Now, I think you said this morning you don't necessarily agree that large packages are a good idea, so you don't necessarily agree with the lenders.

**MR. CLARKE:** No, I – 'cause – that's oversimplified.

**MR. HOGAN:** Okay.

**MR. CLARKE:** So, okay, sometimes they are; sometimes they work, they're the best way to go for a whole bunch of reasons, and other times you need to go down to smaller packages and you need to go to different commercial structures, et cetera, and there's a whole analysis that you do around that for each package, which we did. Our package dictionaries cover this stuff off; our Overarching Contracting Strategy documentation that's all been submitted covers this off, and the Grant Thornton decks, again, reference that and summarize it pretty crunchy as to the process thinking and how we go about this –

**MR. HOGAN:** Okay.

**MR. CLARKE:** – in terms of what best practice is.

**MR. HOGAN:** So it's not a simple one rule for ...?

**MR. CLARKE:** No.

**MR. HOGAN:** Okay.

**MR. CLARKE:** If it was, we wouldn't be sitting here, because every contract would've been done perfectly and – because there's only one way to do it. That's just not how it works, unfortunately.

**MR. HOGAN:** Well, can you give an opinion in this project whether large contract packages were the right idea or the wrong idea?

**MR. CLARKE:** You'd have to look at every contract separately.

**MR. HOGAN:** Okay.

If we could just bring up P-01964, please.

**THE COMMISSIONER:** Tab 14? Tab –

**MR. HOGAN:** Book 1, tab 14.

**THE COMMISSIONER:** Tab 14.

**MR. HOGAN:** If we could just scroll down to the names there, please. So these are people who either prepared, reviewed or approved of this award.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** Your name is not on that, correct?

**MR. CLARKE:** My name is on it, yeah.

**MR. HOGAN:** Your name is on it, sorry, okay. I'm just wondering if anybody else was involved in this that hadn't signed off on this? And I guess I'll be more specific: was Gilbert Bennett or Ed Martin involved as VP and CEO in the –?

**MR. CLARKE:** In the evaluation and selection of Astaldi?

**MR. HOGAN:** Sure, let's start there.

**MR. CLARKE:** No.

**MR. HOGAN:** Not at all?

**MR. CLARKE:** No, that, 'cause the process – SNC would've come up with a list of potentials. There would have been a pre-qualification. They would've come to us. Then there would've been evaluation processes. They would've been aware of bidders and stuff, I guess – I'd have to go back and look at documentation – but they wouldn't have been involved in the detailed selection of the contractor. I wasn't into the details 'cause our process didn't work that way, and it couldn't – I couldn't – you couldn't be in there interfering in the middle of the evaluation.

**MR. HOGAN:** So were they involved in the final approval, though, even though their signatures aren't on it?

**MR. CLARKE:** In the approval of the contract? Yeah, they would have to sign the contract.

**MR. HOGAN:** The approval of the award decision, I guess.

**MR. CLARKE:** Well, yes, because subsequently you have to get to the contract, so they would've had to sign off and approve that

that's where we're going. So they would've been aware of –

**MR. HOGAN:** I guess prior to everyone signing off on this –

**MR. CLARKE:** – (inaudible) selection and why we selected it.

**MR. HOGAN:** – did everybody – did the group go to Mr. Martin and/or Mr. Bennett and say: Look, we're okay with it. We're about to –

**MR. CLARKE:** Everyone would've signed off on this –

**MR. HOGAN:** Yeah.

**MR. CLARKE:** – first.

**MR. HOGAN:** Yeah.

**MR. CLARKE:** I'm sure there was some general awareness, obviously, where we were to and going, and they would've signed off on this. And it's a timing question. I don't know when exactly when Ed and Gilbert would've been brought in the loop on this, but it wouldn't have been far off when these dates are.

**MR. HOGAN:** It would've been somewhat contemporaneous with the signatures?

**MR. CLARKE:** Yeah, it's – yeah, (inaudible) yes.

**MR. HOGAN:** If we could just turn to page 14 of this document, please. We can just scroll down a little bit to the bottom.

So this is a summary of the bids. So \$1.8 billion, \$1 billion, \$1.5 billion and \$1.1 billion. So, correct me if I'm wrong, the estimate for this was \$800 million-ish?

**MR. CLARKE:** I don't know the exact, but it was – your-ish is right.

**MR. HOGAN:** Okay. So well, I think – yeah, it was said this morning that the Astaldi was about \$300 million over, which makes sense, right?

**MR. CLARKE:** Yeah.

**MR. HOGAN:** My question is when – was any analysis done on the effect that this would have on the CPW analysis to compare the Isolated Option and the Interconnected Option? Are you aware of that?

**MR. CLARKE:** I have no idea.

**MR. HOGAN:** Okay. Were you involved or did you hear of any discussions if – you know, if we go with IKC or Aecon, it's really going to affect the CPW?

**MR. CLARKE:** No, I wasn't involved –

**MR. HOGAN:** You weren't aware?

**MR. CLARKE:** – with the CPW, so no idea.

**MR. HOGAN:** No, but I'm asking –

**MR. CLARKE:** Sorry.

**MR. HOGAN:** – you if that was discussed, if you heard anything about that?

**MR. CLARKE:** No, (inaudible) no, I haven't heard anything about – yeah, no.

**MR. HOGAN:** Okay.

I just want to turn to SNC again. You mentioned this morning that they did things wrong as the EPCM contractor. So I'm wondering if you can give some more specifics on what things they did wrong. And I guess things they did wrong that you felt were necessary and moving them into the integrated team.

**MR. CLARKE:** Okay.

So, from a procurement perspective, in general, they were slow to get their systems in place, their team in place, the procedures in place. The recruitment and the people they were supposed to bring was not happening; people in general was an issue across the board in terms of getting the right qualified people. Ron and Jason and others were working feverishly with them in terms of helping sign off on personnel authorizations so they could get people in.

They had, you know, a fair bit of turnover at their project management level before it finally

arrived at Normand Béchard, which is never a helpful thing. The systems overall in terms of how you're getting in place and how it was going to be implemented for document control was a challenge. The engineering support and coordination systems were a challenge. We had to get some people inserted into that –

**MR. HOGAN:** Mm-hmm.

**MR. CLARKE:** – to help coordinate. So there was a multitude of specific challenges, as the stuff comes to the top of mind. There's – a lot of it is well documented in different reports. So I don't remember everything.

The largest challenge to me was the fact that these things do occur, unfortunately, but their lack of willingness, desire or co-operation to work with us to get through it was getting in the way of actually getting through it. It was a problem that was really what tipped the scales, to be quite honest, so that in the end we had to start taking certain pieces over to ensure that the critical path to award agreements wouldn't get affected by this.

**MR. HOGAN:** So that was my next question. Nalcor individuals took things over. All those things that you mentioned, did Nalcor take them – take responsibility for all of those?

**MR. CLARKE:** No.

**MR. HOGAN:** Okay. So what did Nalcor –

**MR. CLARKE:** No, not necessarily.

**MR. HOGAN:** – take over? What did Nalcor become responsible for?

**MR. CLARKE:** So engineering remained and still does remain today with SNC, okay? So they're the engineer of record.

The PCM portion of the project, shall we say, is procurement and construction management. So the procurement portion, Pat Hussey stepped in with the existing SNC people and the existing SNC system and got it going. And we just built the team around – which were a lot of SNC people, to be honest – around their system, their people, and got the packages, getting them together and followed what I think a lot of the

reviews has shown is best practice to get the interface between engineering and procurement going so we could get the project ready to get the contracts awarded. That was the big part that was a concern at the time because that was the stage we were at.

**MR. HOGAN:** What about on site? Did – was SNC on site, at all, as the EPCM contractor?

**MR. CLARKE:** It would've been very early. Building of the road, I'm guessing, in some early stages that they were. And there were issues there. I know Ron and Scott had challenges there, but I quite honestly – I can't remember who their guys were. But they were there, yes, early. And there were issues there as well with how information was getting reported, by how they were approaching things. Things weren't getting done. There were challenges there. But Ron Power and Scott would be much better off speaking to the specifics of that.

**MR. HOGAN:** Okay. We can ask Mr. O'Brien, we can't ask Mr. Power now.

But – so do you know when Nalcor would've taken management of the site over from SNC?

**MR. CLARKE:** I don't remember exactly. I know that went down and we worked through it. So – because it wasn't like a date; this is not a situation where you're in like with a construction contractor where you're saying you're gone today, like happened unfortunately a few months ago with Astaldi. This is a situation where we had a contract in place where SNC was the engineer. Very clearly that's cut off. They – we do not interfere with that. That's very important to maintain that record.

But as for procurement and construction management, the service is about them helping us and working through so we can get this done. We had the ability in the agreement to be able to insert and adjust and change how we were going to execute that with them. And the way the agreement was written, it's written fairly fluid and that's common in the industry because the EPCM contractor is not on a hard-dollar contract. They're not taking responsibility and risk for the full project itself. So we transitioned through periods in different parts from procurement to document control and other

pieces so that we could get things moving based on a priority.

**MR. HOGAN:** Okay.

So why was there a comfort level with SNC remaining in charge of engineering? I mean, if they're not –

**MR. CLARKE:** That was working. They were doing a good job at engineering, some coordination efforts were required, but they were a good – they were good an engineer and it turned out to be a good engineer.

**MR. HOGAN:** Maybe say that again. Put the glass down.

**MR. CLARKE:** Sorry.

**MR. HOGAN:** Okay.

**MR. CLARKE:** That part was working relative to the procurement and construction management piece, right? There were challenges but they were typical and they were generally working with the team from what I could see. But not only that, Nalcor wasn't in the position – you have to have an engineer of record. So they're not in a position to be able to go in and just like with another contractor and take that piece over. It's a different skill set and teams and systems, all right? With the –

**MR. HOGAN:** You need an engineer of record to proceed with an engineering project.

**MR. CLARKE:** Yeah.

**MR. HOGAN:** That's pretty –

**MR. CLARKE:** Naturally, yeah. You got to have that and that was working, they were doing fine with that. It wasn't our desire to throw everyone out and everything out. That's not what the goal was. The goal was to make it work.

And the degree to which SNC cooperated and came in and supported – and if they had taken a mindset of: We want to make this work, too, what do we need to do? Let's work together. They would've ended up with more people and more money out of that project. There's no

question whatsoever, because we wouldn't have had to use other services. It was up to them. You know, the opportunity was there and I consistently had that type of discussion with their VP levels and I couldn't just seem to make it happen for various reasons.

**MR. HOGAN:** Were they trying?

**MR. CLARKE:** At different levels they were trying. I think at the most senior levels at first they were and then, you know, their corporate turmoil didn't help the cost, obviously, where there was change outs with the VP levels. We were first working with guys like Joe Salim and others and there was some early push-back, but they were working with us and then they had their corporate challenges and corruption issues, and everyone – some people left, some people got fired and some people went to jail – or went to court, whatever it was that happened in the end. So there was turmoil in the whole situation that, of course, didn't help, right?

**MR. HOGAN:** Okay.

We can turn to P-03804, please.

**THE COMMISSIONER:** That would be tab 48 in book 3.

**MR. HOGAN:** I just want to look at page 43, please. I think it's at the bottom of that page.

So this – you were brought to this this morning. This is options, I guess, to deal with Astaldi. You're familiar with this?

**MR. CLARKE:** Yeah.

**MR. HOGAN:** Number four talks about Integrated Team: "Under this option, it is assumed that Nalcor will provide management support to Astaldi and form an integrated management team to oversee completion of the CG0007 work scope. Under this scenario, Nalcor assumes much of the completion cost of the project."

So you were asked about that this morning, what was your thought on this option?

**MR. CLARKE:** In terms with getting involved with the direct construction, we weren't set up to be able to do that.

**MR. HOGAN:** So I guess I'm – that's what I want to talk about a little bit more. Why – what's the difference between integrating with Astaldi that you weren't – that Nalcor wasn't able to do, but integrating with SNC and taking over the entire project, it did feel it was able to do?

**MR. CLARKE:** Massive difference.

**MR. HOGAN:** Okay –

**MR. CLARKE:** Massive difference.

**MR. HOGAN:** – go ahead, explain it.

**MR. CLARKE:** So, from a construction perspective, you'd have to have everything from supervision and be able to access your senior foremen. You'd have to have a full team of just construction people on top of that. You'd have to have all your systems for hiring –

**MR. HOGAN:** You're talking about if you integrated with Astaldi, right?

**MR. CLARKE:** For in the field, right.

**MR. HOGAN:** Yeah.

**MR. CLARKE:** All the systems for hiring. You have to have a full team – it was a hands-on with Labour Relations, not doing agreements and helping manage grievances with people. But down in the field, you'd have to have a full safety team that's responsible for that actual execution. I mean, the list goes on –

**MR. HOGAN:** Aren't you doing that anyways?

**MR. CLARKE:** – it's completely different – completely different (inaudible) –

**MR. HOGAN:** Isn't Nalcor doing that anyways?

**MR. CLARKE:** No, we weren't doing that. No, no, that's –



**MR. HOGAN:** PCM – part of the PCM contract?

**MR. CLARKE:** No, that's –

**MR. HOGAN:** Don't you have individuals doing that?

**MR. CLARKE:** – a different level, we're above – we're a level above that, okay? So, we're doing managing, awarding kind – the bigger contracts and that, but we weren't down building, we never hired anyone with a hammer. I mean this is a totally different approach, being able to actually manage – so don't confuse construction management with construction. The two are, sort of, different things.

And I actually don't like the term EPCM, it was put there. It's really project management, overall. It involves procurement, it involves managing construction, it involves managing contracts, you know, and it's at a higher level. In some cases, people refer to it as a managing contractor approach. There's a lot of different terminology in the industry, that's used for it.

We were in a position, not that we wanted to take the role that we ended up with in the integrated team, but we had the capacity and the capability in the team and/or we had the capacity and capability to supplement with other sources, to be able to do that. We would've never been able to do that for pure construction, on a job that size. If it was something very small, you could probably pull it off but that's not the way we were structured.

**MR. HOGAN:** Okay. Mr. Hiscock asked you about David Clarke, I just want get a few more details. So he's retained on full-time basis by the – as part of the project?

**MR. CLARKE:** Yeah. He's as in a labour role in the project. Yes. So he's –

**MR. HOGAN:** So he's a lawyer?

**MR. CLARKE:** – he's a lawyer. Yeah.

**MR. HOGAN:** So is he on contract? Is he paid on hourly basis for when he's needed?

**MR. CLARKE:** He's on contract there, yeah. I don't – I guess he's still on an hourly – I don't know, I haven't been there for an year, and he hasn't had direct involvement with me from a labour perspective, for years. So I don't know the current – but he would've been brought in initially on an hourly basis.

**MR. HOGAN:** Brought in when? Did you – sorry. He would've been brought in –

**MR. CLARKE:** It was in the late 2000s, like I said, that we engaged him first around labour strategy and –

**MR. HOGAN:** Okay. Just want to clarify, Mr. Collins asked you who paid for the ICS, to take it down. What was your answer?

**MR. CLARKE:** To take it down?

**MR. HOGAN:** Yeah.

**MR. CLARKE:** And so – the money that Astaldi used to execute the work, okay, was a part of the money that we would've paid them. And obviously, as well, they had losses. Okay? So there would've been – you can divide that out however you want, but that's not how it was done. I don't know what their losses were used for or what our cash was used for.

**MR. HOGAN:** But they took some losses –

**MR. CLARKE:** They took some losses.

**MR. HOGAN:** – on the labour, taking it down?

**MR. CLARKE:** They took some – no, they took some losses on the contract.

**MR. HOGAN:** Okay. And you paid more than you initially planned to, on the contract?

**MR. CLARKE:** Yes, we did, unfortunately.

**MR. HOGAN:** Part of which would be attributed to taking down the ICS? It's hard to figure out which dollar goes where, I guess.

**MR. CLARKE:** Yeah. You're getting down – someone wants to go and do that analysis, that's fine. You're gonna need a team of forensic accountants and cost controllers.

**MR. HOGAN:** And this last question – last set of questions, I guess, I have. Mr. Hiscock was – you were going back and forth with him a little bit, on productivity. Who was responsible to monitor the productivity of Astaldi?

**MR. CLARKE:** Astaldi?

**MR. HOGAN:** Astaldi – the contractor –

**MR. CLARKE:** Naturally.

**MR. HOGAN:** – itself manages its own productivity –

**MR. CLARKE:** Yeah, absolutely –

**MR. HOGAN:** – up on the site.

**MR. CLARKE:** – they do. Absolutely they do.

**MR. HOGAN:** But then how does the project team – management team know if they're doing any work or not?

**MR. CLARKE:** Monitoring – you get a report, we know they're doing work because you have your – you do have construction management people and you're out, you're in the field, you have their schedule and you have the plans, you have your quality team who are looking at the work they're doing and you can – and they report back to you what's happening, right? And their reports – Astaldi's reports would show that they weren't progressing, which has been very clear, no one's denied any of that.

**MR. HOGAN:** So Astaldi monitors it and reports it to someone.

**MR. CLARKE:** No, Astaldi does it, they monitor as well, and we also would have been monitoring. We were very clear that, you know, this was a concern for us. It's why we were all over it very early, we could tell –

**MR. HOGAN:** Yeah, so that's two different views.

**MR. CLARKE:** – it would be an issue.

**MR. HOGAN:** You said Astaldi first, and now you're saying you were monitoring as well.

**MR. CLARKE:** We were monitoring, we'd had no view – if you interpreted that I said that they were monitoring. They were the ones doing it, they own the productivity, they own the work.

**MR. HOGAN:** And how often – so who on the project management team was monitoring Astaldi's productivity?

**MR. CLARKE:** There's a full team put in place underneath – with construction. You're best to ask Scott and you can ask Ron, but you're best to ask Scott and –

**MR. HOGAN:** Okay.

**MR. CLARKE:** – about how that was all structured.

**MR. HOGAN:** I can ask them. So do you know if there was anyone on site doing it or was it –?

**MR. CLARKE:** Oh, absolutely. Yeah, yeah, in terms of monitoring the progress and what was happening. But in terms of monitoring productivity, at times we started – once we realized they had a challenge, we started doing different checks so that we could – having people monitor certain things so that we could tell Astaldi: Look, you have opportunities here, you understand this, right, and here's where they are. And the teams would work together again. And, that happened with other contractors as well, as a general thing.

But they, to be clear, were responsible for their productivity. Clearly. Otherwise, we would be that integrated team, and we'd be the guys in doing the construction, which we weren't.

**MR. HOGAN:** All right. Thank you.

**THE COMMISSIONER:** All right, I think we'll take our break here and come back in 10 minutes.

**CLERK:** All rise.

### Recess

**CLERK:** All rise.

Please be seated.

**THE COMMISSIONER:** All right. Innu Nation is not present.

Astaldi Canada Inc.

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

**THE COMMISSIONER:** Okay.

Former Nalcor Board Members.

**MS. MORRIS:** No questions, Commissioner.

**THE COMMISSIONER:** Newfoundland and Labrador Building Trades and Construction Council.

**MS. QUINLAN:** Good afternoon, Mr. Clarke.

**MR. CLARKE:** Afternoon.

**MS. QUINLAN:** My name is Cathie Quinlan, and I'm on for the Building and Construction Trades and the RDTC – the unions.

So, I just want to clarify some of your evidence you spoke with Mr. Hiscock about. Who were the chief negotiators from the employer, Nalcor, side for the collective agreement, would you say?

**MR. CLARKE:** It was David Clark and Catherine Rowsell.

**MS. QUINLAN:** You wouldn't include yourself as the chief negotiator?

**MR. CLARKE:** No.

**MS. QUINLAN:** Okay.

It will be the evidence of the union that it was you and David Clark who were the chief negotiators at the table, so I just wanted to put that –

**MR. CLARKE:** That's fine.

**MS. QUINLAN:** – to you for your comment.

**MR. CLARKE:** They're wrong.

**MS. QUINLAN:** Okay.

**MR. CLARKE:** That's all I can say. I was behind the scenes helping drive –

**MS. QUINLAN:** Behind the scenes, not at the table?

**MR. CLARKE:** – helping drive policy and – so, for the principle discussions, I was in the room, but I wasn't the guy leading the thing. And then for the actual negotiations, yeah, no, David drove everything. At the very end, when we actually got the deal in Toronto –

**MS. QUINLAN:** Mm-hmm.

**MR. CLARKE:** – at the hotel, I was there in the hotel. And they called me down at the back end of it where Mr. Blakely and others were there as well. They had a national building trades to help try to close the last point or two –

**MS. QUINLAN:** Yeah. Okay.

**MR. CLARKE:** – because there was some concern. David wasn't quite sure where the remit was to go on some cost issues.

**MS. QUINLAN:** Okay.

**MR. CLARKE:** And we had the modeller there who did some stuff, and he gave the right answer, and I said, Dave, this look like we're meeting our needs so we're good.

**MS. QUINLAN:** So –

**MR. CLARKE:** That was my involvement.

**MS. QUINLAN:** Okay. So, you would say you were more involved in the initial stages when the unions weren't at the table, say, to plan before you met with the unions – when you talked about developing the principles and the goals and –

**MR. CLARKE:** Yeah. David would have done that stuff with the teams. I was involved; he would have made recommendations to myself and others and (inaudible) –

**MS. QUINLAN:** So, David was reporting to you?

**MR. CLARKE:** Yes.

**MS. QUINLAN:** Okay.

So, if he was the chief negotiator on that team and he was reporting to you, it's reasonable for the union to surmise that he may have been at the table but you were approving the decisions – the main decisions at the end of the day?

**MR. CLARKE:** I guess so but –

**MS. QUINLAN:** Okay. Thank you.

**MR. CLARKE:** – anyway, it depends what their –

**MS. QUINLAN:** What was your previous experience negotiating collective agreements?

**MR. CLARKE:** I have never negotiated a collective agreement, even these. As I just said, I wasn't a negotiator

**MS. QUINLAN:** Okay.

And do you know what David Clark's experience was prior to this one?

**MR. CLARKE:** Yes, David's a labour lawyer. I don't know all the details –

**MS. QUINLAN:** Mm-hmm.

**MR. CLARKE:** – of his experience. He was involved directly with Long Harbour; he was involved with other capital works elsewhere, but I don't know the direct details. People would have to check with him.

**MS. QUINLAN:** Okay. If I were to suggest to you that other than Long Harbour, this was the first collective agreement he had ever been involved in negotiating, would you have any comment on that?

**MR. CLARKE:** I would think that is wrong but I am not going to speak to –

**MS. QUINLAN:** Okay.

**MR. CLARKE:** – exactly what (inaudible) because I am pretty sure it is wrong.

**MS. QUINLAN:** You're pretty sure that's wrong, that he's had prior –

**MR. CLARKE:** Yeah. He has a full practice in labour law and he was the labour lead from McInnes Cooper at the time when he came in with us. So, I can't imagine that the concept of labour law was new to him when he came (inaudible) –

**MS. QUINLAN:** I am not suggesting that the concept of labour law was new to him, certainly, but him being the chief negotiator in a collective agreement.

**MR. CLARKE:** Okay, so, I can't speak to that.

**MS. QUINLAN:** Okay.

I think you would agree, based on your evidence that was given just a moment ago, that the collective agreement for this site was pretty standard – the core collective agreement not – leave alone the appendices with the individual trades, but the basic agreement was pretty standard across construction projects, hydroelectric projects, other projects. This is a pretty standard basic collective agreement.

**MR. CLARKE:** It was benchmarked against agreements in Newfoundland and right across the country, so, yeah, I can't imagine that it was that different.

**MS. QUINLAN:** So the one – the only unique provision, perhaps, would be the hiring priority

**MR. CLARKE:** That one would be probably unique, but I can't say that was the only unique one. I don't know that. 'Cause I don't know the other agreements. I have no idea.

**MS. QUINLAN:** Okay. But you couldn't point to another provision besides the hiring priority that would be unique to the Muskrat Falls agreement?

**MR. CLARKE:** I couldn't, no.

**MS. QUINLAN:** Okay. And with respect to the hiring priority, that was – Nalcor inserted that? It wasn't something the union brought to the table?

**MR. CLARKE:** The hiring priority was done as a result of the benefits agreement.

**MS. QUINLAN:** Right, thank you.

So it was you or Nalcor that chose the RDTC to be the union to bargain with for this project. Is that correct?

**MR. CLARKE:** For the Muskrat Falls site, yes.

**MS. QUINLAN:** So, you mentioned the meeting in Toronto – the final meeting to finalize the agreement. Who else was at that meeting from your perspective, from your side?

**MR. CLARKE:** David was there, obviously. Catherine was there. I believe John Mulcahy because he was one of the advisors in the negotiation –

**MS. QUINLAN:** Right.

**MR. CLARKE:** – details. Steve Goulding was there. He was a modeller doing work with us. Whether there was others, I can't remember. That was, what, seven years ago?

**MS. QUINLAN:** Okay.

Do you remember whose decision it was to restrict the RDTC to only have representation from five of the 16 unions?

**MR. CLARKE:** That was a decision that we collectively made in our discussions about how we would want to negotiate. And we looked at what the predominant unions, the predominant skill sets were that we needed to go the generation site. And those five we deemed would cover off 90-plus per cent of the workforce required. So our position was that that needed to be the people who were really leading and driving this.

**MS. QUINLAN:** Okay.

**MR. CLARKE:** And they needed to work with their partner unions because the work needed to really – the agreements and the work needed to revolve around them because that was going to drive the opportunities within the work execution, and, you know, there was some push-back. I don't remember by who exactly. But at the time, folks aligned and agreed, and for the most part, that's the people who were at the table.

**MS. QUINLAN:** Okay.

Were you aware at the time that every union would have to vote and ratify the agreements so –

**MR. CLARKE:** Yes, we were aware of that.

**MS. QUINLAN:** – no one union had more of a say?

**MR. CLARKE:** We were aware of that, yes.

**MS. QUINLAN:** Okay.

**MR. CLARKE:** Yeah.

**MS. QUINLAN:** Those are all my questions. Thank you very much.

**MR. CLARKE:** Thank you.

**THE COMMISSIONER:** Thank you.

Dwight Ball, Siobhan Coady I don't believe is here. ANDRITZ, Grid Solutions.

All right, Nalcor Energy.

**MR. SIMMONS:** Thank you, Commissioner. Good afternoon, Mr. Clarke.

**MR. CLARKE:** Good afternoon.

**MR. SIMMONS:** I have some questions, first related to the Astaldi contract. And you'd referred – in your evidence earlier, you'd been referred to performance security that was in place as part of that contract. You'd been taken to an exhibit which is P-02511. Can we bring that back up, please, Madam Clerk?

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

**MR. SIMMONS:** And this was a table that Mr. Collins had led you through.

**THE COMMISSIONER:** Tab 61.

**MR. SIMMONS:** And in one of the columns there where it says – just a little bit smaller – or a little bit down please. Thank you. Column 4, it describes, "Astaldi Security \$100M Letter of Credit + \$150M Perf. Bond."

Now, you were asked a question a moment ago and you described a little bit about what those things were, but maybe can you just explain a little more fully what the letter of credit is, how that forms part of the security package, maybe what the advantages of it are. And then the same thing for the performance bond.

**MR. CLARKE:** Yeah, so a letter of credit is a – they’re generally irrevocable from an approved financial institution. And I believe the Astaldi one, for example, was National Bank, I believe.

And so, it’s essentially the entity you’re doing the work with, they have to put up credit. The bank gives you – gives us the LOC and – I’ll oversimplify, but you essentially have the ability to call on that and walk into the bank and say: We’re calling default, or whatever, you know, to prove anything to them, and we want the money.

Again, oversimplified, but it works, essentially, like that. There’s opportunities to challenge, but they’re very few.

**MR. SIMMONS:** So, a letter of credit provides a very accessible means of getting access to cash in the event of the conditions being triggered under the contract that would allow the letter of credit to be –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** – (inaudible).

**MR. CLARKE:** LCs are – typically, you put them in place to cover off any instance where there’s an immediate issue, so you can access the cash quickly to enable you to do a quick turnaround or keep work all moving.

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

**MR. CLARKE:** If there’s a challenge until the company gets through their problem, or if you have to switch someone out, it enables you to be able to get the – keep things moving while you’re doing that.

**MR. SIMMONS:** And would you know whether there is – there are fees and costs to be paid in order to get a letter of credit?

**MR. CLARKE:** Absolutely, yeah, and it varies. It depends on the creditworthiness, obviously, of the entity that you’re dealing with. And, obviously, Astaldi had no issue getting their \$100 million LC at the time of award, so ....

**MR. SIMMONS:** So, the responsibility for getting the letter of credit, in this example, is Astaldi’s, and Astaldi would have to bear the cost upfront of getting that letter of credit.

**MR. CLARKE:** They would. Obviously, they build it into their price.

**MR. SIMMONS:** Okay. All right.

And the performance bond.

**MR. CLARKE:** So, performance bonds are out of the – they’re with a surety – so, in the insurance industry. And they, typically, are taken when you have failure. They’re very challenging to get unless you have a full default. Typically, it involves insolvency and such things. And the – you have to go and apply and go through a process, and the bond company, a lot of time, has a right to step in, okay, and they will try and help complete the work is the intention.

So, in this case, I can’t remember. There was a couple of the top surety companies that Astaldi did (inaudible) with.

**MR. SIMMONS:** And is it correct that, in either case, in the event of an insolvency of the contractor, such that the contractor as no means to complete the work, that both the letter of credit and the performance bond are still available, and they remain in place and –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** – accessible on those terms that you’ve described?

**MR. CLARKE:** Yes.

**MR. SIMMONS:** Okay.

Now, in this case, we have a total of \$250 million worth of security comprised of those two elements here against a contract value of, I think, \$1.1 billion.

**MR. CLARKE:** Yeah.

**MR. SIMMONS:** And, in your experience with the other projects you've been involved in, are these two types of security common, uncommon, standard, and how do the values of these compare to the values of large contracts you've seen elsewhere?

**MR. CLARKE:** They're common; having both of them: not as common. So this has, sort of, built some braces to some degree, and the amount against a contract this size, yeah, to me is fairly high, but I understood why we were taking the approach we were.

**MR. SIMMONS:** Now if someone were to suggest that the letter of credit and the performance bond should have had a value that was equal to the full value of the contract is that something that you have seen anywhere in your career?

**MR. CLARKE:** I haven't on large contracts, I guess; I haven't seen it, no.

**MR. SIMMONS:** Do you have any view or can you provide us any information on whether you think it would have been possible for any contractor to provide that level of security in the perform of letter of credit and performance bond?

**MR. CLARKE:** Well, I would suggest it would have been an incredibly challenging for them to do it, because if you're going to get a letter of credit for it, then you have – obviously, you have to deal with bank, and we know they're not necessarily going to be big risk takers, so you have to have something to back that up, so you're going to tie up your liquidity.

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

**MR. CLARKE:** And the bonding company, they're going to spread their risk across, and as bonds grow it's obviously going to get, you know, more expensive. So, it would be incredibly challenging and restrictive.

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

**MR. CLARKE:** I would suggest, if you tried to do that for something this large – not saying it's impossible; not saying it hasn't been done –

**MR. SIMMONS:** Yeah.

**MR. CLARKE:** – because I don't know, but it would be very difficult.

**MR. SIMMONS:** Now in this – for this contract there was a third element of security which was the parental guarantee because the contract itself was with Astaldi Canada, which put up the letter of credit and the performance bond –

**MR. CLARKE:** Mm-hmm.

**MR. SIMMONS:** – and then the parent company, Astaldi S.p.A. in Italy, provided a full – I understand it to be a full guarantee of Astaldi's performance of the contract?

**MR. CLARKE:** Correct.

**MR. SIMMONS:** That's correct? Okay.

And the real creditworthiness question then was to look at the creditworthiness of Astaldi S.p.A. to ensure that it was assessed as having the means to backup that guarantee that it gave.

**MR. CLARKE:** Correct, yes.

**MR. SIMMONS:** Okay. So this chart here – this table that Mr. Collins took you through, he used the 50 per cent complete line as an example to walk across and see how much value there was in the letter of credit and the performance bond if Astaldi failed and couldn't complete after 50 per cent. If you were to include the guarantee from the parent company in this analysis, how would that affect the analysis we would apply to this table, or would it?

**MR. CLARKE:** The – any extra costs over and above what it would cost Nalcor –

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

**MR. CLARKE:** – would – you would be able to go back to the parent and get that.

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

So if we were to look at either of these lines from 10 per cent complete up to 90 per cent complete, if you include the ability to recover under the guarantee, in either of those cases did Nalcor have the ability to be kept whole and not suffer a loss in the event that Astaldi failed at those points?

**MR. CLARKE:** Yes they did.

**MR. SIMMONS:** You were asked some questions as well about the payment structure under the Astaldi contract. And I heard you, I think, to say that the – aside from the labour, there were other elements of the contract that were paid on either lump sum or unit-price basis. Is –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** – that correct?

**MR. CLARKE:** The materials portions and some indirects, yeah, yeah.

**MR. SIMMONS:** Okay.

So for things like the materials portions and the indirects, payment of those – would that have been tied to or paid in proportion to the value of the work actually performed towards –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** – completion of the contract.

**MR. CLARKE:** In a sense, simplified, yes.

**MR. SIMMONS:** And for the labour, am I correct that with the LMax concept – and LMax stands for, I think, labour maximum, does it? It's an acronym.

**MR. CLARKE:** Mm-hmm.

**MR. SIMMONS:** With that concept, the terms of the contract provided that Nalcor would not pay more than the LMax amount of labour, regardless of what Astaldi's cost was in providing the labour to finish the work.

**MR. CLARKE:** That's correct. It was a hard-dollar price for labour.

**MR. SIMMONS:** So that would essentially be equivalent to a lump-sum price for labour, except that imposing the target labour concept on top meant that if Astaldi performed well, the price could actually be lower than that LMax –

**MR. CLARKE:** True.

**MR. SIMMONS:** – that would be paid.

**MR. CLARKE:** True.

**MR. SIMMONS:** Okay.

Now, it – you were asked some questions concerning the method of payment for labour and that it wasn't directly tied to the value of the progress of the work towards contract completion, but was tied to, I think, the amount of labour expended by Astaldi. Is –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** That's correct; that's way it works?

So – and you'd also, I think, told us that you saw the major contributors or causes of the problem that developed with the Astaldi contract as being, firstly, Astaldi's poor productivity at the outset of the contract.

**MR. CLARKE:** Performance in general, yes.

**MR. SIMMONS:** Performance in general.

And secondly, the liquidity problem that its parent developed as the project proceeded.

**MR. CLARKE:** Right, because they couldn't step in and take care of their issue.

**MR. SIMMONS:** Okay.

So my question, then, is if the payment for labour had actually been done differently, if it had been tied to the progress that Astaldi made towards completion of the work instead of tied to the labour it was expending as it moved up towards the LMax, in your view, would that have made any difference to the problem that eventually developed as a result of the productivity and liquidity issues?



**MR. CLARKE:** Materially? No. Because their challenge was in how they were managing the workforce, and there were issues to start up and organization and all that. And how that labour was paid out, the only thing it did was it meant that they didn't have a cash-flow issue early. So, it's the only difference it made. They still would've had the same problem.

So materially, it wouldn't have made a difference as to where things went. As a matter of fact, I believe that in my experience, if the contract had been hard dollar, in terms of paid true lump sum, and they were getting paid for progress milestones, they would've had cash-flow issues in '14 as well. And it would've meant that they would've been more focused on being commercially contractual in their behaviour and less co-operative, which meant we would've had the challenges to turn them around. Even the bit of work we got done in 2014 was useful, and that allowed us to close the river in the next year. So I believe there was a lot of risk if you had the other model. So it's six, half a dozen with it. There was going to be a material problem regardless.

**MR. SIMMONS:** Okay.

You'd been asked a question, I think, by Mr. Hiscock that involved a question about labour availability and the assessment of that. And my question is, as the project proceeded after work began, did any problem materialize about the availability of craft labour?

**MR. CLARKE:** Availability wasn't an issue. We had identified it as a potential risk, but we did a huge amount of work in terms of selling the project and we never had an issue in the end in attracting labour. And the market that was heated slowed as the project went and started getting going. So we really never had an issue getting labour.

**MR. SIMMONS:** Okay.

You had been shown the award recommendation document for the Astaldi contract, CH0007, and it's P-01964, so maybe we can just bring it up for a moment. And you'd been brought to the signature page on the front.

**THE COMMISSIONER:** Tab 14.

**MR. SIMMONS:** And I think it had been pointed out that Mr. Martin and Mr. Bennett were not – had not signed off on this. But – so first of all, my question is this document – this is not the award of the contract. This is only the –

**MR. CLARKE:** No.

**MR. SIMMONS:** – recommendation –

**MR. CLARKE:** Yes.

**MR. SIMMONS:** – that this is the recommended contractor.

**MR. CLARKE:** Yes.

**MR. SIMMONS:** Correct?

**MR. CLARKE:** And we had an approval-authorization matrix that outlines what – who needs to sign off on what and what stage of bringing up the line for –

**MR. SIMMONS:** Okay.

**MR. CLARKE:** – financial authority and approval.

**MR. SIMMONS:** Hmm.

**MR. CLARKE:** So, that would have been on a different –

**MR. SIMMONS:** Right. So, the actual authority to award the contract is determined according to the financial approval matrix, and it has to be a person in the organizational hierarchy who has sufficient financial approval to make the decision to award a contract depending on the value of the contract.

**MR. CLARKE:** Yes. That is correct. Yeah. That's correct.

**MR. SIMMONS:** So, the sign-offs we see here are the recommendation that it should be awarded to Astaldi.

**MR. CLARKE:** Based on the evaluation –

**MR. SIMMONS:** Right.

**MR. CLARKE:** – that was done, yes.

**MR. SIMMONS:** And in this case, knowing the value of this contract, can you tell me how high up it would have gone in order for this contract –

**MR. CLARKE:** To –

**MR. SIMMONS:** – to be awarded.

**MR. CLARKE:** To Mr. Martin, obviously. Yeah.

**MR. SIMMONS:** And the last question is, we’ve – the question has come up a number of times about who paid to put the ICS and take the ICS down, and you’ve answered that, I think, but let me see if I have this right.

So, the first point is if Astaldi had finished the work for the contract price, for the \$1.1 billion, Astaldi would have put the ICS up; they would have taken it down; they would have been paid the contract price and nothing more, nothing less.

**MR. CLARKE:** Correct.

**MR. SIMMONS:** Correct. So, it’s not – there wasn’t a specific payment that had to be made to them to get them to take the ICS down in addition to what had to be paid for them to perform the work in total?

**MR. CLARKE:** No. There was no change order or anything –

**MR. SIMMONS:** Right.

**MR. CLARKE:** – to – yeah. No.

**MR. SIMMONS:** Right. And –

**MR. CLARKE:** The ICS is not a permanent part of the work, right? It’s the part of the work methodology.

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

**MR. CLARKE:** It’s the largest tool they had –

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

**MR. CLARKE:** – in other words, so ...

**MR. SIMMONS:** And we know that there was extra payment made to Astaldi over and above the contract price –

**MR. CLARKE:** Hmm.

**MR. SIMMONS:** – and you’ve explained to us what the reason for that was. It was cheaper than – it boils down to it being cheaper than bringing in another contractor to finish the work, essentially.

**MR. CLARKE:** Essentially. Yes.

**MR. SIMMONS:** Essentially.

**MR. CLARKE:** It’s the best of two bad situations.

**MR. SIMMONS:** Right.

And so, do I understand you to be saying, in relation to the ICS, that because Astaldi was paid extra money, without that payment being tied to any particular claim made by Astaldi, maybe some of it went towards taking down the ICS; maybe it didn’t. But it wasn’t tagged or identified as being a payment for taking down the ICS?

**MR. CLARKE:** No. No. It’s not how it was done.

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

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

**THE COMMISSIONER:** Thank you. Ms. Hutchings.

**MS. HUTCHINGS:** Thank you, Commissioner. I only have a few questions for you, Mr. Clarke. And for those who don’t know me, my name is Deborah Hutchings. First of all, if we can have the witness be shown Exhibit P-00885.

**THE COMMISSIONER:** Okay, that’s not going to be in your book that will be on the screen.

**CLERK:** (Inaudible.)

**MS. HUTCHINGS:** Two eights and a five and a zero in the front.

**MR. CLARKE:** Maybe it's two zeroes.

**MS. HUTCHINGS:** Two zeroes, yes. 00885. There we are, okay. Thank you.

All right, you recognize this document, Mr. Clarke?

**MR. CLARKE:** This is a part of the presentations we did with Grant Thornton.

**MS. HUTCHINGS:** Okay.

All right, before we get in here, because you may want to refer to this particular document on this question, a lot of discussion has taken place about the different consultants and other third parties that were used by Nalcor throughout this project. Can you tell us about some of the third parties that – or experts that you were involved with in the project and why?

**MR. CLARKE:** Sure, I guess in general, we have good project experience and that on the team, but we never want to get caught up in to groupthink so we did avail of a lot of expertise to bring in.

Westney is one that's a name that has come up a lot obviously, and they're very well-known in the project management industry in terms of understanding risk, understanding certain issues that occur during project management. We use them on a bunch of different fronts. They have access to some incredibly experienced people, retired CEOs of large construction companies, retired executives from engineering firms, ex-Army Corps of Engineers generals, et cetera. So, we use those guys a fair bit, with respect to different issues.

We also – where we had some concerns around claims and different issues like that, we use companies like BRG, Berkeley Research Group, we pulled in, who are very well-known in the industry to be able to help with analysis. We used forensic accounting on certain issues, like with the Astaldi. We used Cleveland Shaw, who is very well-known in Canada for construction knowledge. Multiple law firms, of course, that we pulled on for advice in different places. In a

couple of cases, we used KPMG to come in and do sort of independent assessments of the status on certain contracts, to tell us where the status was and what some of our opportunities might be.

There were others, but in general, the list is in this presentation, and I –

**MS. HUTCHINGS:** And do you know where –

**MR. CLARKE:** I'm not sure which page.

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** Sorry.

**MS. HUTCHINGS:** Can we just scroll through a bit and see if we can ...

**UNIDENTIFIED MALE SPEAKER:** Page 14.

**MS. HUTCHINGS:** Page 14 probably. Thank you.

**MR. CLARKE:** Yes. So, yes, we used Deloitte, I reference them earlier, with respect to team effectiveness. We brought in their group with some folks – a couple local folks with folks out of Toronto were there – and Calgary, to help with the SNC issues.

PwC were involved from a financial advisory perspective, and now I see this, it does remind me that they were the ones who specifically kept reminding us of the need with respect to having large enough packages –

**MS. HUTCHINGS:** Mm-hmm.

**MR. CLARKE:** – for the financing and that if we weren't gonna have that, we were gonna have to explain our way through it, which we did.

IPA has been referenced a lot here with respect to the Inquiry, I understand. So we used them on a couple different instances to do reviews. They did a front-end-loading review, as it's called, to just check your preparedness when you're going through decision gates. That was at DG2, I believe, where we scored in the top end of their scoring.

They also did a check on the team at the point when we were well into the SNC changes and we wanted an assessment to understand where we to, if we had any gaps. So they did that assessment with us.

I referenced a couple of the other folks here – PowerAdvocate on transmission, AON was involved heavily with our insurance as a risk advisor and the – in the end, they were our broker into the market.

The point being, the things we did, we weren't doing them stand alone. We were – even though we had the experience and knowledge, in most cases, to understand what is the best thing to do, but we tested it off with others and allowed them to challenge us. And then, in many cases, we accepted some of their advice; and other cases, we would not have. But that's just the way advice works.

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** So.

**MS. HUTCHINGS:** All right. Thank you.

Now, the last document I want to refer to is P-01006.

**THE COMMISSIONER:** Again, this one will be on your screen.

**MR. CLARKE:** Probably on another page number, I guess.

**MS. HUTCHINGS:** Okay. You recognize this document?

**MR. CLARKE:** Yeah. It's part of –

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** – the Grant Thornton as well.

**MS. HUTCHINGS:** Okay.

I want to ask you: In your experience, are the day-to-day construction issues, which has been – which you've talked about today and others throughout the Inquiry thus far I've talked about – would those issues with Muskrat Fall, would they be abnormal issues that would arise?

**MR. CLARKE:** For the most part, no, I mean the things that occur that I have seen, that lead to claims, lead to different delays, contractual disputes, they are typical, they're reason that people like me exist. There is a whole industry around claims, there is a whole industry around construction law. So, no, they are very normal.

**MS. HUTCHINGS:** Okay. Now there's a chart in this particular Exhibit and unfortunately, I do not have the –

**MR. CLARKE:** Have the page number.

**MS. HUTCHINGS:** Yeah, it's the one –

**MR. CLARKE:** This one.

**MS. HUTCHINGS:** – high – okay, here we go.

**MR. CLARKE:** These two.

**MS. HUTCHINGS:** Back again, this one – no, the next one.

**MR. CLARKE:** Here we go.

**MS. HUTCHINGS:** Here we go. Okay.

So what is this chart here? What does it tell us and where does it come from?

**MR. CLARKE:** This – it's not very clear but a – so this was from – when we did the presentations to Grant Thornton, we had pulled out some various studies, because, at the time, there was a lot of – still continues – say, misinformation about how Muskrat Falls stands in the industry

**MS. HUTCHINGS:** Right.

**MR. CLARKE:** – in terms of how it's performing and where things are.

**MS. HUTCHINGS:** Mm-hmm.

**MR. CLARKE:** Again, no one's happy that the project is so over budget and where it was; however, it was being compared as if no one had ever seen anything like this, there was, you know, this, I would call it rhetoric being used. So what we did to try to and put things into context for people who weren't aware of the

industry, is, I took this Mackenzie report, and there are a lot of other reports out there, but we just took this sheet and we overlaid where Muskrat Falls sits from the perspective of this study that they had done on megaprojects.

And, so even with the challenges that we saw outside of the normal construction with all, as I referenced before, the turbulence, shall we say –

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** – contractors going insolvent with takeover with GE, with Alstom; SNC and their corruption challenges and us having to do removals; plus all of the political and public –

**MS. HUTCHINGS:** Right.

**MR. CLARKE:** – challenges that came, right – that, you know, went to the place of protest and everything else. Even with that, Muskrat Falls and – based on the P50 estimates and the low-probability schedule as people refer to it today, Muskrat Falls comes right smack in the middle as to what the average is from a performance perspective, despite all the challenges we had.

**MS. HUTCHINGS:** Okay. And –

**MR. CLARKE:** And if we had had a P75 – which we didn't, that's fine, that was a different decision – it would put us right down in top quartile, where there's only a few projects that would have performed better.

**MS. HUTCHINGS:** Okay. So – and Muskrat Falls would be – correct me if I'm wrong, would be the blue dot in the centre of the two –

**MR. CLARKE:** Yes.

**MS. HUTCHINGS:** – yellow circles there.

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

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** Yeah.

**MS. HUTCHINGS:** And that's it? Anything else to add there?

**MR. CLARKE:** No, that was –

**MS. HUTCHINGS:** Okay.

**MR. CLARKE:** – the general – yeah.

**MS. HUTCHINGS:** Okay.

All right. Thank you very much.

**THE COMMISSIONER:** Redirect.

**MR. COLLINS:** Mr. Clarke, you had a back-and-forth, to some extent, to a conversation with Mr. Hiscock, about the extent to which, in hindsight, the Astaldi award was right.

Can I suggest that the bid evaluation team for the Astaldi contract based its recommendation on a scoring of Astaldi's execution plan and commercial terms? And if the bid evaluation team had had a crystal ball with which they could see Astaldi's 2014 performance, their scoring of the execution plan might have been lower?

**MR. CLARKE:** Guaranteed.

**MR. COLLINS:** And if they had a crystal ball with which they could foresee the completion contract, the scoring of the commercial terms might also have been lower?

**MR. CLARKE:** Yes, if they understood, yes, that whole situation, what the productivity was gonna turn into. And that – it would have had to be.

**MR. COLLINS:** And if the – if those scores had been used in the original bid evaluation, Astaldi would not – would likely not have received the contract. It would have gone to Salini or Aecon.

**MR. CLARKE:** Yeah, it would have gone to someone else.

**MR. COLLINS:** And so, in that sense, in hindsight, a different decision might have been made, but we don't know how that would have worked out.

**MR. CLARKE:** I've no idea how that would have worked out. I've had big issues with North American contractors as well.

**MR. COLLINS:** So, you also mentioned that there – that Nalcor has a – was very careful in managing its contract and there's been no claim of contractor interference. And I understand that is very – that's very close to my understanding. But if we go to P-03672, which is volume 2, tab 40.

**THE COMMISSIONER:** What tab again? 03672. Tab 40.

**MR. COLLINS:** And if we go to page 9.

**MR. CLARKE:** Sorry, tab what?

**MR. COLLINS:** Tab 40.

**MR. CLARKE:** Forty?

**MR. COLLINS:** Volume 2, tab 40.

**MR. CLARKE:** Okay.

**MR. COLLINS:** On page 9.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** The bottom of the page. This is Astaldi's 2016 justification for incremental compensation.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And they write: "Muskrat Falls instructed Astaldi to employ several specific construction management personnel and agreed to reimburse Astaldi for all incremental costs."

**MR. CLARKE:** Okay.

**MR. COLLINS:** So would you agree that there has been a limited claim with that item?

**MR. CLARKE:** So this is different, okay? So this was the situation where when they were trying to turn themselves around and we were trying to help facilitate, at one point they got – it became very clear we had a couple of individuals in our team who would've been very strong and helpful for them.

And so they talked to us and we talked to them. We said: Look, you know, these guys understand what you need. They said: We agree. They said: Can we borrow them? And we said: No, you can't borrow them, but you can have them. We will let them go and release them so that you can hire them. And they said, okay, and that's what they did. And as a part of this, they – you know, they did try to lay the claim to get the money for it, but that's not us taking over their piece.

**MR. COLLINS:** And those individuals, that's Bill Knox and Roy Collier?

**MR. CLARKE:** Yes, that's correct. Yeah.

**MR. COLLINS:** If we go next to P-01964, which is, again, tab 14, binder 1. And if we go to page 16, you mentioned how Aecon's hours were almost identical to Astaldi's.

**MR. CLARKE:** Their original hours were –

**MR. COLLINS:** Yes.

**MR. CLARKE:** – yeah, close.

**MR. COLLINS:** And Salini's were even lower.

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And that's partly – it's partly accurate, in my understanding, and partly not quite.

Sorry, page 16 – page 16, sorry. So if we look under Astaldi and Aecon, and we look at the total person-hours, including the bid, I see \$6.8 million for Astaldi and 6.9 for Aecon. It's always –

**MR. CLARKE:** Yeah.

**MR. COLLINS:** – the same. But if we scroll down to total person-hours in evaluated cost, including the LMax, we see 7.6 for Astaldi and 14.3 for Aecon.

**MR. CLARKE:** Yes, there was an adjustment that, I understand, was done after in the clarifications.

**MR. COLLINS:** And, similarly, if you look at the LMax, Astaldi's LMax was only \$64 million above their bid, but Aecon's LMax was \$440 million above their bid. So in that sense –

**MR. CLARKE:** Right, that's their risk premium that they were looking for.

**MR. COLLINS:** Aecon, although their target hours were close to Astaldi's –

**MR. CLARKE:** Yeah.

**MR. COLLINS:** – they foresaw the possibility – you could interpret this to mean that they foresaw the possibility of a much larger increase.

**MR. CLARKE:** Well, their risk appetite wanted a much larger increase. So what they were willing to take the risk on for was a lot larger number.

**MR. COLLINS:** That's another interpretation.

You mentioned, I believe, an email from Scott Thon to Gilbert Bennett, which you interpreted as being an example of SNC's attempts to get their work back?

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And if we go to P-03706, which is binder 1, tab 6, if we go to page 4, at the bottom of the page there's an email from Scott Thon to Gilbert Bennett.

**MR. CLARKE:** Yeah.

**UNIDENTIFIED FEMALE SPEAKER:**  
(Inaudible.)

**MR. COLLINS:** Oh, sorry, I gave you the wrong exhibit – 03736, on page 4.

And he writes: "Further to our discussion and now that you have landed on the organization chart, it would be a good time to assess the risks of the new organization so we can build

mitigation plans ...." Is this the email you're referring to?

**MR. CLARKE:** Yeah.

**MR. COLLINS:** Thank you.

So you had a certain – there was a certain amount of discussion about the late signing of the Astaldi contract –

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** – and the extent to which that created an excess – a greater risk that the contract objectives couldn't be completed.

**MR. CLARKE:** Okay.

**MR. COLLINS:** If we go to P-03741, which is not in the – that is in the binder, but this page isn't, page 529. This is the Astaldi contract again. And if we scroll down a little this is described as Mutual Release and there's a – in short it appears that each party waives any claim based on the late signing of the contract. Is that your understanding?

**MR. CLARKE:** Yes. That is absolutely correct.

**MR. COLLINS:** Can you describe why this was part of the contract?

**MR. CLARKE:** Because we knew that we were a little delayed in terms of doing the award, okay? And Astaldi were still saying that, oh well, don't worry, our dates are good, sort of, trust us, But I knew, based on my experience, that this would be a set-up for an extension of time claim. It's just the natural part of the industry.

So I asked them, I said: Are your needs good? They said, yes. So, well, we need to do a waiver on this. And, of course, first they pushed back a little and I said: Well, if the dates aren't good and we have to have a conversation, that's fine. Let's discuss the dates. Let's discuss any implications.

And they said: No, you know what, we're good. And this was with a direct conversation I had with their CEO of Canada, Manny Triassi. And we said: Fine, well, here's – here we go. We'll

sign the waiver and let's get things moving. We're glad to hear that everything is going to get done.

**MR. COLLINS:** Was there a certain amount of discussion of whether Nalcor should have, at some point, got another estimate, a second estimate, of the powerhouse work?

**MR. CLARKE:** Mm-hmm.

**MR. COLLINS:** Was it your understanding that Nalcor had done check estimates?

**MR. CLARKE:** That was my understanding, yes, that there were check estimates done. Yes.

**MR. COLLINS:** And John Mulcahy and Paul Hewitt?

**MR. CLARKE:** Mulcahy and – yeah, I believe that's the two. I don't know if there were others. I remember that, oh yes.

**MR. COLLINS:** You had a certain discussion about who was monitoring productivity – Astaldi's productivity on site. Would the project controls team have been doing that?

**MR. CLARKE:** So actual productivity itself is – like you said, it's done by the contractor and they monitor and do their piece. And the project controls team, for us, would have taken data in reports to the degree that we get it, okay, to be able to assess what they thought productivity was. Yes, we would have – and people would have been able to – in a limited – more limited way than the contractor, be able to assess numbers.

**MR. COLLINS:** They would be able to tell you how much concrete was placed and for how many hours got worked and hence how many were hours per metre.

**MR. CLARKE:** They wouldn't necessarily be able to tell you the hours worked until they got certain reports and then you're dependent on what the contractor is telling you.

**MR. COLLINS:** Okay.

You mentioned that the estimators were involved in the collective agreement discussion at some point.

**MR. CLARKE:** The model, the part of the estimate, right?

**MR. COLLINS:** Hmm.

**MR. CLARKE:** We had that information as to what the assumptions were of certain costs and what it would mean.

**MR. COLLINS:** Was that the labour rates?

**MR. CLARKE:** Yeah, using the labour rates and what different assumptions were. So one of the guys who was helping do the modelling, he was involved – it was Steve Goulding. He was involved with the team to be able to take the assumptions from the negotiations and the costs that were put in there and roll those actual labour rates and costs into the model to see if we were gonna come out at or around what the estimate was showing.

That wouldn't have accounted for productivity.

**MR. COLLINS:** Would have been rates only, not –

**MR. CLARKE:** It's rates –

**MR. COLLINS:** – productivity.

**MR. CLARKE:** – only, yeah, I mean.

**MR. COLLINS:** Okay.

So you said that the bulk excavation came in on budget – under budget.

**MR. CLARKE:** The bids – I don't know the exact, but the bids came in at around the budget, I remember that. I don't remember the numbers, sorry. And I don't remember where it ended up.

**MR. COLLINS:** Mmm. That's fair.

If I suggested that it ended up a little over the estimate, would that – that wouldn't surprise you?

**MR. CLARKE:** That wouldn't surprise me, no.



**MR. COLLINS:** You had – you said in response to a question from Mr. Simmons that if the labour had been – if Astaldi’s payments to labour had been tied to performance, in some ways that could have made things more difficult because it would have – the liquidity problems would have arisen earlier, they might have become less co-operative.

**MR. CLARKE:** The liquidity challenges on the contract itself – I don’t know about corporately where they stood in ’14 – but on the contract, there would have been challenges ’cause they would have been asking for money from the parent, obviously. And that could quite possibly have created a more contentious relationship and put them in that non-performing, uncooperative bucket, which really starts to create a lot of challenges.

So I don’t know that would have happened, but it’s quite possible.

**MR. COLLINS:** And could I suggest that if the contract had been written in that way, the performance of the contract might have been different in many ways. Astaldi might have felt even more urgency to change or improve their performance if they were paying, with no reimbursement, all these hours out. Is that possible?

**MR. CLARKE:** There’s – it is possible that in ’14, okay, they might have turned things around a bit quicker. But it wouldn’t have changed what happened later in ’14 and going into ’15 because they were turning things around, and the completion agreement – at the end, they were getting paid under a bridge agreement and completion agreement based on production, and their productivity never really adjusted over what it was in ’16 or ’15.

So, materially, I think there might have been some advantage at the beginning from a cost perspective. But it’s not that this would have made this issue go away ’cause it’s not what the issue was.

**MR. COLLINS:** The course of Nalcor’s whole dealings with Astaldi might’ve been different if instead of Astaldi being able to recoup all of their losses in 2014, they had to pay all of this money out of pocket without getting reimbursed

by Nalcor. That would’ve changed the relationship between Nalcor and Astaldi significantly in 2014?

**MR. CLARKE:** It could’ve.

**MR. COLLINS:** And it could’ve led either to Astaldi improving their performance more rapidly or to a faster breakdown of the relationship.

**MR. CLARKE:** Either one.

**MR. COLLINS:** And either of those could have reduced – if either of those had happened, it could have reduced the ultimate cost of the contract.

**MR. CLARKE:** Or it could have increased it.

**MR. COLLINS:** My last question, can we go back to P-01006? Which is not in the binder. And could we go back to page 11?

You refer to this chart and you indicated that this chart is taken from the 2016 McKinsey report but that there’s a lot of –

**MR. CLARKE:** No. It’s – well, maybe it is, sorry it says it’s 2016. Sorry, I thought it was older than that. Apologies.

**MR. COLLINS:** There are – in any case, there are – there’s a lot of work with this theme. This is not a single – this is not the only study that shows this.

**MR. CLARKE:** No, there are different industry pieces of data that show that megaprojects, yes, have challenges. And the industry as a whole is constantly struggling with how to get through the issues and improve performance.

**MR. COLLINS:** And – so this wasn’t a discovery that happened after the sanction of the Muskrat Falls Project; this is something that people in the industry were aware of for a long time?

**MR. CLARKE:** Yeah.

**MR. COLLINS:** And something you encountered on previous projects?

**MR. CLARKE:** There's challenges on every project. Yes.

**MR. COLLINS:** Could we go to P-00130 at page 13? This is another – this page is also not in the binder.

This, again, is the DG3 QRA. And I don't know if you were – how familiar you were with this document at the time it was put together. But it – if we scroll down a little, it says: "Interpretation of these results indicates that the entire Base Estimate has an overall accuracy ... in the range of -12% to +13%, which is well within the expectations of the targeted Class 3 estimate ...."

If people in the industry were familiar with the idea that significant cost and schedule overruns were common on major projects, then how could Nalcor have held out that the estimate was accurate to within negative 12 to plus 13 per cent?

**MR. CLARKE:** That's an estimate methodology question. I am not an estimator. That's a whole – and the probabilistic analysis that goes behind it is a totally different thing. So, the estimate is also different than the contingency and the management reserves and all those things. And I don't know – I haven't been into the meat of this so I don't know the structure, sorry.

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

**THE COMMISSIONER:** I just have a couple question – oh, I'm sorry, go ahead, Mr. Simmons. Sorry.

**MR. SIMMONS:** Great. Hit your mic?

So, Commissioner, I know I'm out of turn, but there is one question I'd like to ask. I can ask it first, and you can rule if –

**THE COMMISSIONER:** No, you go right ahead.

**MR. SIMMONS:** – I should ask it or not. Okay. And I'll ask it from here if that is satisfactory.

So Mr. Collins gave you a hypothetical question where he said if a crystal ball had been available when the CH0007 bids were evaluated, and the evaluators could look into the future and see what actually developed with the Astaldi performance of this contract and the problems that came up, would the scoring have been lower and would that have resulted in Astaldi not having gotten the contract. And I think you agreed with that. So my question is, if we were to extend that hypothetical situation for a fair comparison, would we not also have to use the crystal ball and apply to each of the other three contractors and look into the future and see how – what unforeseen things would have developed if they had gotten the contract also?

**MR. CLARKE:** In order to have an equal comparison, you would.

**MR. SIMMONS:** Thank you.

**THE COMMISSIONER:** Thank you.

Just a couple of questions, Mr. Clarke, if I can. Aside from your work on the *Matthew* project, where I think you were then working with the Government of Newfoundland?

**MR. CLARKE:** Yes.

**THE COMMISSIONER:** Right.

Have you ever been a project manager – on the project management team at a level where you are at now, or where you were at, involved in a Crown corporation, publicly funded project?

**MR. CLARKE:** In a Crown corporation, publicly funded project? No.

**THE COMMISSIONER:** Right.

So the reason I ask that question is – I'd like to go back to Exhibit P-01006, page 11.

And this also goes to what you have referred to as misinformation on the part of the public with regards to this project. So, let me put this in perspective for you, and I'm not saying this is gospel, but what I've been hearing is this – is that when this project came up for sanction, the Government of Newfoundland and Labrador and Nalcor Energy basically told the public that the

cost of the project would be 6.2 billion plus financing.

In fairness, the government knew, according to some of the testimony that I've heard, that, you know, cost overruns do occur but they could be maybe \$300 million to \$500 million.

So can you understand why, when a project comes in at \$10.1 billion – far more than potentially \$6.7 billion – why, perhaps, people in the public might be a little bit concerned about the fact that they understood the project was going to be that particular cost and yet it costs \$3 billion more?

**MR. CLARKE:** Yes, Sir, the fact –

**THE COMMISSIONER:** Right.

**MR. CLARKE:** – that people understood, I completely understand.

**THE COMMISSIONER:** Right. So it's the misinformation – if we're referring to misinformation from the public, maybe the misinformation may have come from the perception of the public, related to what they were being told when this project was approved.

**MR. CLARKE:** That's quite possible – expectation management – it's quite possible –

**THE COMMISSIONER:** So you were –

**MR. CLARKE:** – (inaudible.)

**THE COMMISSIONER:** – you were around in those days. Can you tell me anything that was presented to the public, that would basically disclose that all megaprojects run over, have cost overruns and schedule overruns.

**MR. CLARKE:** I can't, Sir. It wouldn't have been a part of what I would have done.

**THE COMMISSIONER:** Right.

So, again, I ask you: Do you understand why, perhaps, the public may have been so upset when the cost overruns and the schedule overruns occurred?

**MR. CLARKE:** I've – I have no doubt, I have – I do understand why people would be upset, 'cause we were upset as well. My reference, Commissioner, was to the fact that what we were hearing was a lot of information about what the cause was and that everyone was incompetent and that – it was the personal side of it.

**THE COMMISSIONER:** Right.

**MR. CLARKE:** So if I wasn't clear in that, my apologies.

**THE COMMISSIONER:** Right, okay.

But – so even on that particular point, what was the public being told about – or do you recall what the public was being told with regards to why the cost overruns and why the schedule overruns were occurring?

**MR. CLARKE:** My reference was to the point where things had become personal, about the fact that the project management team was –

**THE COMMISSIONER:** Yeah, I don't take issue with that, I –

**MR. CLARKE:** – (inaudible). So –

**THE COMMISSIONER:** – you know, I know there are some –

**MR. CLARKE:** – that was my reference.

**THE COMMISSIONER:** – you know, this is a hard business, right. You guys are pretty big, you know, you're in the business, you – you know, I've heard things about, you know, keeping feet to the fire with the contractors, whatever. It's a tough business. You know, and I've seen people here who've explained how tough this business is, and I fully understand it.

**MR. CLARKE:** Okay.

**THE COMMISSIONER:** But what I don't understand is, or what I'm having difficulty understanding, is why there's so much sensitivity to the fact that the public were so concerned about what happened with this project.

**MR. CLARKE:** There's no sensitivity on the fact that the public were concerned –

**THE COMMISSIONER:** Okay.

**MR. CLARKE:** – Commissioner, not from me.

**THE COMMISSIONER:** Okay.

**MR. CLARKE:** That I get. I understand that.

**THE COMMISSIONER:** Okay.

**MR. CLARKE:** I really do. And, believe me, I'm a Newfoundlander like everybody else, and I wanted this to be right. And I'm as disappointed as anyone else about where it went. But, again – so, if that was the impression I gave, that's not what it was meant to be.

**THE COMMISSIONER:** Okay.

**MR. CLARKE:** To me, this was about the fact of – we wanted and we – and the team that's there still wants to get this done and mitigate this as much as possible. And my point was just that: The things we were doing – we were tying everything we had in our capabilities and our resources to be able to do it, and there were a lot of things outside of our control on and a lot of different barriers that were coming into play that weren't helping the cause. And that was, sort of, the message we wanted to get across to people, at the time, was: Look, you got to help us get this done, not attack us while we're trying to get it done. That was the point.

**THE COMMISSIONER:** Right, but you can – but again, you understand the sentiment of the people.

**MR. CLARKE:** Oh, I do. I understand, absolutely. Yes.

**THE COMMISSIONER:** Okay.

Thank you very much, Mr. Clarke. I appreciate your time.

**MR. CLARKE:** Thank you.

**THE COMMISSIONER:** All right.

So, we're adjourned until tomorrow morning. We start with Ms. Clarke, I believe – Ms. Power, Tanya Power, tomorrow at 9:30.

**CLERK:** All rise.

This Commission of Inquiry is concluded for the day.