



Public Hearing

Audience publique

Commissioner / Commissaire

The Honourable / L'honorable
C. William Hourigan

VOLUME 6

Held at :

Ian Scott Building
100 Thomas More Private
Second Floor Courtroom
Ottawa, Ontario
K1N 1E3

Monday, June 20, 2022

Tenue à:

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100, Thomas More Private
Salle de cours au 2^e étage
Ottawa, Ontario
K1N 1E3

Lundi, le 20 juin 2022

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II Appearances / Comparutions

| | |
|---------------------------|---|
| Falguni Debnath | Executive Director / Directrice Générale |
| Christine Mainville | Co-lead Counsel / Avocate principale |
| Kate McGrann | Co-lead Counsel / Avocate principale |
| John Adair | Co-lead Counsel / Avocat principal |
| Chris Grisdale | Commission Counsel / Avocat de la Commission |
| Mark Coombes | Commission Counsel / Avocat de la Commission |
| Anthony Imbesi | Commission Counsel / Avocat de la Commission |
| Fraser Harland | Commission Counsel / Avocat de la Commission |
| Liz McLellan | Commission Counsel / Avocate de la Commission |
| Carly Peddle | Commission Counsel / Avocate de la Commission |
| Emily Young | Commission Counsel / Avocate de la Commission |
| | |
| Peter Wardle | The City of Ottawa |
| Betsy Segal | |
| Catherine Gleason-Mercier | |
| Jesse Gardner | |
| | |
| John McLuckie | Amalgamated Transit Union 279 |
| Jaime Lefebvre | |
| | |
| Michael Valo | Alstom Transport Canada Inc. |
| Charles Powell | |
| Lena Wang | |
| Jacob McClelland | |
| | |
| Sarit Batner | Ontario Infrastructure and Lands Corporation (IO) |
| Julie Parla | |
| Morgan Watkins | |
| Solomon McKenzie | |

III Appearances / Comparutions

Kyle Lambert
Jeremiah Kopp

Morrison Hershfield

Heather MacKay
Jeffrey Claydon
Adam Mortimer

The Province of Ontario

Michael Varantsidis
Gary Gibbs
Kim Gillham

Rideau Transit Group – EJV (Engineering Joint Venture)

Jennifer McAleer
Peter Mantas
Maria Braker

Thales Canada Inc.

David Jeanes

Transport Action Canada

Linda Rothstein
Gordon Capern
Michael Fenrick
Jean-Claude Killey
Kartiga Thavaraj
Jesse Wright
Mannu Chowdhury

RTG (Rideau Transit Group General Partnership)

+

OLRTC (Ottawa Light Rail Transit Group General Partnership)

+

RTM (Rideau Transit Maintenance General Partnership)

Michael O'Brien
James Doris

STV

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Ottawa, Ontario

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--- Upon commencing on Monday, June 20, 2022 at 8:58 a.m.

THE REGISTRAR: The hearing is now resumed. The Honourable Justice William Hourigan is presiding.

COMMISSIONER HOURIGAN: All right, good morning. Our first witness today and this week is Mr. Remo Bucci from Deloitte. Mr. Bucci, are you there?

MR. REMO BUCCI: Can you hear me?

COMMISSIONER HOURIGAN: Yes, we can hear you fine. Thank you. Sir, you have an option. You can swear to tell the truth, or you can affirm to tell the truth. It makes no difference. What is your choice?

MR. REMO BUCCI: The former.

COMMISSIONER HOURIGAN: Okay, go ahead.

--- MR. REMO BUCCI: Sworn

THE REGISTRAR: The witness has been sworn in.

COMMISSIONER HOURIGAN: Okay.

MR. WILLIAM PEPALL: Good morning, Mr. Commissioner. My name is Pepall, P-E-P-A-L-L, first name William, together with my colleague, Emily Fan, F-A-N, we represent Mr. Bucci and Deloitte in connection with this matter.

COMMISSIONER HOURIGAN: All right. Thank you. Mr. Bucci, you'll have some questioning from various parties. First will be Commission counsel, okay? Is Commission counsel there?

(SHORT PAUSE)

COMMISSIONER HOURIGAN: Mr. Bucci, just standby. I apologize. There seems to be a technical issue.

MR. REMO BUCCI: No problem.

(SHORT PAUSE)

COMMISSIONER HOURIGAN: Ms. McLellan, you're muted, I think.

1 **MS. LIZ McLELLAN:** Good morning, Mr. Commissioner.

2 Apologies. We were having some technical issues here.

3 **COMMISSIONER HOURIGAN:** All right. Are you all set to go?

4 **MS. LIZ McLELLAN:** Yes, I am.

5 **COMMISSIONER HOURIGAN:** All right. Go ahead.

6 **MS. LIZ McLELLAN:** Hello, Mr. Bucci. Have you been sworn in
7 this morning?

8 **MR. REMO BUCCI:** I have.

9 **COMMISSIONER HOURIGAN:** He has, yes.

10 **--- EXAMINATION IN-CHIEF BY MS. LIZ McLELLAN:**

11 **MS. LIZ McLELLAN:** Okay. So, good morning, Mr. Bucci. My
12 name is Liz McLellan, and I am Commission counsel. To begin this morning, would you
13 please provide an overview of your professional background?

14 **MR. REMO BUCCI:** I'm a civil engineer by education. I graduated
15 in 1989. I've spent the majority of my career working -- I should say I guess the more
16 relevant credentials would be in the mid to late 1990's, I worked at the Ministry of
17 Transportation of Ontario. There, I worked on alternative service and delivery and
18 different mods of contract delivery. Since 2000, I've been at Deloitte's. I work on
19 infrastructure advisory projects, principally for public sector entities, large, new
20 greenfield projects, much like the budget we're going to be talking about today. That's
21 it.

22 **MS. LIZ McLELLAN:** And what was your role on Stage 1 of the
23 LRT project?

24 **MR. REMO BUCCI:** We, Deloitte's, were engaged in 2010 to
25 provide financial and transaction advice on the project. That evolved over time. Initially,
26 it was to support with the business case to look at the delivery options, the procurement
27 structure, the contractual structure, the costs, the financing, the budget, also looking at
28 the funding strategy. That then worked into the approval of the project to proceed, and

1 then we continue forward as financial advisor through the procurement process, request
2 for qualifications, request for proposal, the development of the project agreement, and
3 then through to financial close. So, that ended in about 2013.

4 Then subsequent to that, did a small piece of work, I think it was in
5 the 2015 timeframe which is listed in the report. And then since 2016, was re-retained
6 by the City as part of the Stage 2 program, which included sub-Stage 1 follow up.

7 **MS. LIZ McLELLAN:** Okay.

8 **MR. REMO BUCCI:** And continue to be engaged today. Sorry.

9 **MS. LIZ McLELLAN:** And so, just beginning with the selection of a
10 delivery model, back in 2010 I believe that work started, what were the City's priorities
11 with respect to what they were looking for in a delivery model?

12 **MR. REMO BUCCI:** I'd say in terms of contract design, the key
13 point that was talked about over and over again was to avoid what was referred to as
14 interface issues. So, in simple terms, you might see the reference to the rail wheel
15 interface. What effectively this means is you're going to be -- because the project was
16 new, you're moving through design and construction into maintenance. There are
17 various decisions that need to be made, and they include the type of train control
18 systems required, the type of vehicle that's required. And those would run hand-in-hand
19 with design decisions and construction decisions.

20 Ultimately, when the City was talking about the rail-wheel interface,
21 really, what they were focused on ensuring, that the customer experience was
22 maximized. So, in other words, how would their customer feel the ride, and were the
23 decisions or the contractual modes put in place done in such a way that the customer is
24 always at the centre of the decision-making process, so that every design decision,
25 every construction decision, procurement, maintenance, et cetera, it's all with respect to
26 the quality of service to the customer. So, that rail-wheel interface is where you feel
27 that.

28 **MS. LIZ McLELLAN:** Okay. So, in the analysis of the selection of

1 the delivery model, I think we'll begin in February 2011. So, if we can please have
2 document COW 0543596 put up on the screen?

3 **MS. LIZ McLELLAN:** I'm happy to repeat the number. Thank you.

4 So, Mr. Bucci, you are familiar with this document, I assume? So,
5 this document is a project delivery and procurement options report. It's addressed to
6 the City from Deloitte, and if you scroll down a little bit, please, you can see that it was
7 delivered on February 28, 2011.

8 And so, Mr. Bucci, the purpose of this report was to advise the City
9 on its procurement model options and, ultimately, to inform a decision?

10 **MR. REMO BUCCI:** Yeah. It was the first phase of the primary
11 delivery. There was a follow on work more on the value for money that was done, but
12 the intention of this document was to support the public release or the background to
13 how the decision was made to arrive at the procurement mode or the deal structure that
14 was selected. Correct.

15 **MS. LIZ McLELLAN:** Right. Okay. So, if we can please scroll to
16 page (vi) or page 8 of the PDF, please? And so, just -- we were talking about the City's
17 priorities in terms of the selection of a delivery model, and I think that on page 8, we will
18 see what it looks -- or, sorry, scroll up to -- scroll up a little bit, please? Just between
19 pages 7 and 8. Oh, yes. There you go. Exactly. Okay.

20 So, in terms of priority for the City at the time on key factors and the
21 selection of a delivery model, we have cost is number one, and the weighting of that is
22 40 per cent. So, that would suggest that cost was quite important at the time for the
23 City. And then we have alignment of City's role for business and policy objectives. We
24 have commercial and contractual structure, and we have value for risk transfer, which
25 we will be discussing later, and we know it was important. But at the time, 40 per cent
26 being assigned to cost in terms of weighting and evaluation for factors that were
27 important on the selection of the model, you would agree that cost was quite important
28 to the City?

1 **MR. REMO BUCCI:** Yes.

2 **MS. LIZ McLELLAN:** Right. And did the City's criteria change
3 from this point forward?

4 **MR. REMO BUCCI:** In this report, no. And I would say no, but just
5 recognize, you've got a Table on there with a 40 per cent weighting. You can look at
6 the RFP to see how price was evaluated at that point in time. So, I'm just saying that
7 within the context of this report and the multi-area of criteria that we had developed,
8 cost was 40 per cent, yes.

9 **MS. LIZ McLELLAN:** Okay. And so, if we could please scroll to
10 page 12 of the PDF? That's 112 that you have. Yes, great. Thank you.

11 So, in terms of final evaluation results, there are different models
12 that are weighted in terms of looking at those factors that we just discussed, and we see
13 here that a design build finance operate maintain model had the highest score at 95 per
14 cent in the far right column there on the page, followed by a DBOM with short-term
15 financing or small "F" financing, then with a DBFM having the third highest score, and we
16 know, obviously, that the DBFM is what the City ultimately goes with, that's very
17 important that -- that's why it's important to point that out now, but was the City
18 considering including operations in its delivery model at this point?

19 **MR. REMO BUCCI:** Operations was, yes.

20 **MS. LIZ McLELLAN:** So it was still being considered by the City
21 that they -- that they would retain the operations, and despite the fact that it was first in
22 terms of the evaluation criteria, bringing it to that 95 percent?

23 **MR. REMO BUCCI:** Yeah, I think later on the report talks about
24 how the -- because what this report did was it shortlisted combinations of DBN, DBOM
25 and then, you know, what the financing includes in it. But with respect to the long list as
26 what you're seeing here, this is the mathematical representation primarily driven by the
27 different financing structures.

28 **MS. LIZ McLELLAN:** Okay. Thank you. So we can actually pull

1 that document down.

2 So for chronology purposes and in the interest of time, I won't take
3 you to the document, but you did also just discuss the value for money assessment that
4 was done, and I believe that was done on March 25th, 2011. Deloitte conducts an initial
5 preliminary value for assessment, and it provides a risk assessment based on the
6 shortlisted four delivery options that were provided in that February 2011 report?

7 **MR. REMO BUCCI:** Correct.

8 **MS. LIZ McLELLAN:** Okay.

9 **COMMISSIONER HOURIGAN:** Yeah, you can't just nod your head
10 or shake your head. You have to say yes or no. It's okay. It's fine.

11 **MR. REMO BUCCI:** My apologies.

12 **COMMISSIONER HOURIGAN:** No, no, it's fine. Every witness
13 does it, don't worry.

14 **MS. LIZ McLELLAN:** And, Mr. Bucci, again, in the interest of time
15 I'm not going to pull it up, but the preliminary BFM concludes DBFOM has the best
16 value for money savings followed by DVFM followed by DVOM f for short-term financing
17 and a DVF -- DVM model for short-term financing as well. But by that time, I think you
18 had suggested that the City was looking at the fact that it would be retaining operations.

19 **MR. REMO BUCCI:** Yeah, there were two factors that, you know,
20 as you go from the four options down to one that was selected, one was operations in or
21 out, and then the second would be the mode of delivery with respect to DVFM versus,
22 you know, that -- whether or not the payment structure was such that it would be, you
23 know, private capital investment project as well.

24 **MS. LIZ McLELLAN:** Okay. So can we please have document
25 number DEL0102412 pulled up on the screen?

26 **--- EXHIBIT No. 080:**

27 DEL0102412 – Ottawa's Light Rail Transit Project Funding
28 Agreement Negotiation 19 April 2011

1 **MS. LIZ McLELLAN:** So as we're having this document pulled up
2 on the screen, Mr. Bucci, this is a PowerPoint presentation. It's titled, "OLRT Planning
3 Agreement Negotiations," which I assume would have been during the time where there
4 were discussions with the more senior levels of government on what their contribution to
5 the project would be. And it's a presentation, it looks like, involving the Executive
6 Steering Committee, but it's a presentation to the City Manager.

7 **MR. REMO BUCCI:** That's correct.

8 **MS. LIZ McLELLAN:** Okay. So I'll just wait to have it pulled up.
9 Great, thank you.

10 So at this time, nothing is set in stone on the delivery model that will
11 be chosen. And I will also share and -- or first of all, are you -- are you familiar with this
12 document?

13 **MR. REMO BUCCI:** Yes, Ms. -- can I just see the date, Ms.
14 McLellan just to...

15 **MS. LIZ McLELLAN:** Yes, of course.

16 So would you mind just scrolling down a bit, please?

17 You can see at the bottom on the right-hand side it says April 19,
18 2011?

19 **MR. REMO BUCCI:** Got it. Yeah. Thank you.

20 **MS. LIZ McLELLAN:** And, Mr. Bucci, the metadata on this
21 document suggests that you actually wrote this document, or you were the owner or the
22 creator of the document? Does that make sense?

23 **MR. REMO BUCCI:** Yes, I -- yes, if that's what ---

24 **MS. LIZ McLELLAN:** Right.

25 **MR. REMO BUCCI:** --- it said. I was probably the one who put --
26 who received all the information to pull it together, correct.

27 **MS. LIZ McLELLAN:** Okay. So if we could please turn to Slide 5?
28 Right, okay.

1 So first of all, we're talking about affordability, which we know is
2 important. And at the time, there's a target of, it looks like 2.4 to 2.6 billion, and we
3 know that changes, but there's reference in this PowerPoint to a review of small F, or
4 short-term financing options that's being conducted. You'll see that on the first bullet,
5 that first sub-point to that bullet is discussed. And in terms of short-term financing and
6 just setting out and defining what short-term financing is, short-term financing is with
7 respect to Stage 1, over the construction period; is that correct?

8 **MR. REMO BUCCI:** Correct. Principally, to align a payment
9 structure with date certainty on a schedule.

10 **MS. LIZ McLELLAN:** Right. And so we know that ends up being
11 milestone payments.

12 **MR. REMO BUCCI:** And it's apparent, yes.

13 **MS. LIZ McLELLAN:** Yeah. And in terms of this short-term
14 financing over the construction period, is that ultimately how the Project Co. pays
15 construction costs?

16 **MR. REMO BUCCI:** Sorry; can you repeat that, please?

17 **MS. LIZ McLELLAN:** So in terms of the short-term financing and --
18 over the construction period, is that how the Project Co. pays construction costs?

19 **MR. REMO BUCCI:** It would be how the City is paying Project Co.,
20 Project Co. is funding the project with the City -- Project Co. would be raising financing
21 to fill the gap between when the City is paying them, and they're incurring costs on a
22 monthly basis.

23 **MS. LIZ McLELLAN:** Right. So why would -- or why is short-term
24 financing attractive to the City?

25 **MR. REMO BUCCI:** It is -- during the construction period, design
26 and construction period, from a public perspective, there are two elements I think that
27 are most important. There is the budget, meaning what the Proponent would have been
28 and their commitment to maintaining to that price, which is provided as part of their

1 proposal; and, secondly, the schedule. So what the -- ultimately, what this procurement
2 model or what this analysis was demonstrating was, because the schedule is a bid item
3 for which payments are tied to specific events, therefore you are getting certainty, both
4 on how much you need to pay because you're only paying for performance; in other
5 words, when a particular condition is met for that milestone payment. And secondly, by
6 the nature of that because those milestones are event driven, tied to a schedule, you
7 get certainty of schedule.

8 So that's what's being demonstrated by -- I mean, people notionally
9 call it construction financing, but it's really the construction period payment regime to
10 anchor schedule, completion, coordination, risk.

11 **MS. LIZ McLELLAN:** Okay. Is short-term financing less costly to
12 the City?

13 **MR. REMO BUCCI:** Short-term finance -- the City would have the
14 capability to finance short and long. Short-term financing is an incremental cost here
15 because it was not part of the funding arrangements from the Federal Government of
16 Canada. That's why financing -- that's why financing of any sort above what the City
17 would have issued on its own was something that the City had to look at because it was
18 not included within the funding from Canada and Ontario.

19 So I just want to make that distinction. Yes, it could be under
20 certain circumstances, but the issue -- it wasn't so much that the City could finance it
21 lower, it was that any incremental costs of financing was not covered in the funding
22 agreements, or the funding agreements were in place here, but conceptually where the
23 funding agreements were headed, the commitments made by Canada and Ontario, yes.

24 **MS. LIZ McLELLAN:** Right. Because they were fixed at a certain
25 amount? That's what they ---

26 **MR. REMO BUCCI:** Right. They were -- right they were 600
27 million each, so every ---

28 **MS. LIZ McLELLAN:** Right.

1 **MR. REMO BUCCI:** --- any dollar above that wasn't covered and
2 the City had to incur that cost on its own.

3 **MS. LIZ McLELLAN:** Right. And that was a -- that was a
4 (indiscernible) area of consideration for the City, I assume, because they knew that at
5 all times pending costs above that 600 million, or 1.2 billion, combined they would be
6 covering those costs?

7 **MR. REMO BUCCI:** Correct. In terms of -- so the City has to do
8 an assessment parallel with this, how will -- what source of funds will the City use to
9 cover its share?

10 **MS. LIZ McLELLAN:** Right. And then just because we're talking
11 about short-term financing now, sort of set the stage of the conversation, what is -- or
12 let's speak about the combination of long-term and short-term financing, or big F
13 financing, for the project and that's also being considered throughout the selection of the
14 delivery model process?

15 **MR. REMO BUCCI:** Oh, sorry. So if you think about where we
16 were -- where this project was at this point in time, we were assessing construction
17 period payments, so I think we've covered that. Once you get to substantial completion,
18 or here it's defined as revenue service availability then you could have a circumstance
19 where you've paid all of the design and construction once and therefore there's no
20 capital that needs to be repaid or for the operating or the maintenance term.

21 When we talk about the capital "F" or the long-term financing here,
22 the concept was to have the proponent, the Project Co -- we'll call them at this point in
23 time. -- fund a portion of the capital payment which would then be repaid by the City in
24 equal amounts, in other words, it's fixed, it doesn't vary over the operating maintenance
25 term and the purpose was to serve as an additional anchorage point for the transferral
26 of maintenance and lifecycle risk based on that proponent's design and construction
27 solution, to ensure that the quality I was talking about earlier of -- because ultimately
28 when you're in the operating and maintenance phase what the proponents were

1 providing were trains' service plans, quality of the service to the customer. So that
2 capital was seen as being the anchorage to ensure that the quality that the City would
3 have been buying, was going to be met. And that long-term financing is a combination
4 of debt that a project company would raise from the public markets, debt always being
5 cheaper than equity. And the equity component of that was what the lenders – or those
6 long-term financiers, would have required from the Project Company as security or a
7 down payment, if you will, and the objective, as you're structural – one would be
8 structuring such a regime would be to try to have as much debt as possible because
9 debt's cheaper than equity, so the cost of capital is something there would be a
10 consideration of that finance.

11 **MS. LIZ McLELLAN:** So you spoke a bit to the benefits of long-
12 term financing and the Commission has heard evidence about that, about the long-term
13 financing; but did the City have any concerns about the long-term financing
14 components; were there any disadvantages?

15 **MR. REMO BUCCI:** The advantages were captured in the value
16 for money because you've anchored it, you've anchored the risk transfer as I've talked
17 about earlier, the security of that payment regime helps to anchor it. When we're talking
18 about just costs and not value, then the concern is again those – and particularly – I
19 mean you rightly pointed out construction finance is very economical. The cost
20 difference between construction financing and the City's costs typically are not that
21 great. But when you move into long-term financing and you consider it a weighing of
22 capital – of debt and equity, the cost is close to twice of what the City would have paid if
23 it raised the financing. So when you look at it from the lens of funding, going back to
24 where we started, those incremental costs were all borne by the City because they were
25 not covered, nor were they eligible to be covered in the funding contract and the funding
26 agreements with Canon Ontario. So it was capped at 600 million each and all of the
27 long-term finances, the incremental long-term financing costs was borne by the City.

28 So that's why you're seeing a focus here on the cost of the

1 financing, not the value, the value comes through in the value for money recession.

2 **MS. LIZ McLELLAN:** Right. So we can pull this document down
3 and I'm going to provide another document number, but I'll let you take this time – okay,
4 thank you.

5 So can we please pull up document No. COM0012.

6 **--- EXHIBIT No. 081:**

7 COM0000012 – Ottawa's Light Rail Transit (OLRR) Project
8 Schedule Acceleration and Procurement Option Selection 25
9 May 2011

10 **MS. LIZ McLELLAN:** So, Mr. Bucci, I think we'll scroll to page
11 two, actually, just so we can situate the date of the report. Great. So this is a report
12 from Ms. Nancy Schepers, the Deputy City Manager, Community & Sustainability at the
13 time. It's dated May 5th and it's a report to the Finance & Economic Development
14 Committee or "FEDCO". Are you familiar with this report? I'll show you the title as well,
15 sorry; if we could scroll down just a bit.

16 **MR. REMO BUCCI:** Yes, not as familiar as the one that came in
17 July subsequently, but, yes.

18 **MS. LIZ McLELLAN:** So –

19 **COMMISSIONER HOURIGAN:** Where do you want him? Where
20 in the document are we looking, counsel? All right, it looks like you're frozen. Hold on.
21 Standby.

22 **(SHORT PAUSE)**

23 **COMMISSIONER HOURIGAN:** All right. We're going to take a
24 few minutes to see if we can get this resolved.

25 **THE REGISTRAR:** Order, all rise, the Commission will recess.

26 --- Upon recessing at 9:26 a.m.

27 --- Upon resuming at 9:33 a.m.

28 **COMMISSIONER HOURIGAN:** All right, we're back on; please

1 proceed.

2 **MS. LIZ McLELLAN:** Thank you, and apologies, Mr.
3 Commissioner and Mr. Bucci for the technical issues on our end, but we will resume.

4 So if we could please go back to pulling up Document COM0012?
5 And then if we could please turn to page 2.

6 Great. And then so this is what I was speaking to previously, so the
7 subject of the report. So we see that it's "Ottawa's Light Rail Transit Project Scheduled
8 Acceleration & Procurement Options Selection Report". And if we scroll down a bit
9 more to page three, the top of page three. Yeah, you can stop there, perfect.

10 So Item No. 2 reads that: "Ms. Schepers is recommending to the
11 Finance & Economic Development Committee, to recommend to Council that they direct
12 staff to advance the procurement of the OLRT Project as a design, filled and maintain
13 project as outlined in this report." So I would assume that you're familiar with this report
14 and then that recommendation – this would have been May 5th, 2011 to situate
15 ourselves.

16 **MR. REMO BUCCI:** Correct.

17 **MS. LIZ McLELLAN:** And from your experience, and as an advisor
18 to the City, do you recall an over-arching interest from the City at that time to speed up
19 the Stage 1 schedule to get to Revenue Service Availability or RSA as quickly as
20 possible?

21 **MR. REMO BUCCI:** I would say generally that would always be
22 an objective; you're always concerned about inflation on projects, so the quicker you
23 can get to market, the better it typically is.

24 **MS. LIZ McLELLAN:** And then, of course, there was also the
25 public interest in getting to passenger service quickly as well because the Citizens of
26 Ottawa wanted to obviously use this project that they would be paying for?

27 **MR. REMO BUCCI:** Correct. I think the July report got into that in
28 a little bit more detail, but you're right, if you look at it back in history now you can see

1 how the two would go together.

2 **MS. LIZ McLELLAN:** Yes, And we will look at the July report.

3 **MR. REMO BUCCI:** Yep.

4 **MS. LIZ McLELLAN:** But – so just scrolling to page 4 and 5,
5 please, of the report, so the bottom of page four and the top of page five. Great, and if
6 you'd just scroll up a bit to procurement options so that's on the screen, so the bottom of
7 page four. So scroll up to page four, please. Great. Up a bit more. So procurement
8 options. So the bottom of page one and the top of page five.

9 **MR. REMO BUCCI:** Yes.

10 **MS. LIZ McLELLAN:** So this page five – yeah, exactly; perfect.
11 Okay. So under the heading "Procurement Option" it states: "After expert analysis,
12 internal review and broad industry consultation, staff recommends adopting a private
13 sector-driven design build maintain model and one integrated competition and contract".
14 So do you recall that model being recommended to FEDCO and City Council at the
15 time?

16 **MR. REMO BUCCI:** Correct.

17 **MS. LIZ McLELLAN:** Okay. .And then at the top of page 5, it
18 reads:

19 "Staff further recommends that the operations of the
20 LRT system should remain with the City as part of
21 one integrated system, and that an appropriate
22 package of financial mechanisms for ensuring
23 contract performance will be presented in a report
24 being advanced to the Committee and Council in
25 July." (As read)

26 So by this time, the City has determined that it makes sense that
27 they keep operations with the City, assuming because there will be different stages and
28 different sections of the system that will be added on, so it makes sense to have one

1 operator.

2 **MR. REMO BUCCI:** Correct.

3 **MS. LIZ McLELLAN:** And then it reads that:

4 "An appropriate package of financial mechanisms or
5 the financing component is not decided by May 2011."

6 (As read)

7 Is that -- is that fair to say?

8 **MR. REMO BUCCI:** Correct.

9 **MS. LIZ McLELLAN:** And that -- that's something that will be
10 determined between this report, so May 5th, and July, and we know that the July report
11 is dated July 14th for the actual implementation of the project?

12 **MR. REMO BUCCI:** Correct. And I believe the focus here was to
13 begin with the RFQ.

14 **MS. LIZ McLELLAN:** Right.

15 **MR. REMO BUCCI:** And that's probably why it would -- and in fact,
16 that's probably why it was written this way.

17 **MS. LIZ McLELLAN:** Right. And we'll get to that in this report as
18 well. But just first, in your experience is it unusual for an owner to approve a delivery
19 model without coming to a decision on the financing component at the same time?

20 So here we have a recommendation that counsel approve the DBM
21 model, but financing -- the financing component is not in place, it's not decided?

22 **MR. REMO BUCCI:** Not in the -- I would say in the context of
23 requiring funding agreements, the answer would be it's not unusual, no.

24 **MS. LIZ McLELLAN:** Okay.

25 **MR. REMO BUCCI:** But later on, I would say later on in the
26 decade, as funding mechanisms evolved that took, you know, private capital into
27 account, it allowed these decisions or these considerations to be made in line with, like,
28 what we did with the procurement options report, because this was the first project in

1 Ontario following this type of model. And the fact that the provincial funding agreement
2 really didn't take that into account, I think that's what you're seeing here.

3 So what we were trying to -- we, collectively, the City and its
4 advisers, were trying to do was deal with the status of the funding; proceed with the
5 procurement so that the schedule could be met, as we talked about earlier; and then
6 allow or provide clarity that the details on the deal structure, so that last sentence you
7 see, appropriate back to financial mechanisms ---

8 **MS. LIZ McLELLAN:** Yes.

9 **MR. REMO BUCCI:** --- will come shortly because that -- that's
10 where the project was at that point in time. I think it was close, in terms of getting the
11 funding structure confirmed, and, you know, the amount of private capital that went
12 along with that, in terms of the delivery model.

13 **MS. LIZ McLELLAN:** But it was fair to say, or it is fair to say that at
14 that time, a quicker timeline was of interest in terms of having the report -- or, pardon
15 me, having the project in service, and so going out with the DBM and getting the
16 approval for the DBM in May without the financing, that was to sort of push things
17 along?

18 **MR. REMO BUCCI:** Correct, to get the RFQ out.

19 **MS. LIZ McLELLAN:** Right.

20 **MR. REMO BUCCI:** And I should say that that was in line -- you
21 know, previous to the release of the RFQ, a significant amount of market soundings had
22 been done collectively -- again, I'll use the term "we" being the City and the advisors
23 would have known where the market was at.

24 So there's always, again, this concern of let's get the project out
25 there so the Proponents or bidders can see that it's proceeding. They will mobilize
26 teams to start forming. Therefore, they're now making a commitment to follow that
27 project as compared to well, I'm going to wait and go to see another -- you know, to bid
28 on another project.

1 So you want -- another way of thinking of it, you want to get your
2 place in line. So that's why there's always an interest to get the project into
3 procurement. You're signalling to the market, "We're going to do it, so get mobilized."

4 **MS. LIZ McLELLAN:** Okay.

5 If we could please scroll to page 10? Okay. And then if we could
6 scroll down a bit, please, so we capture the entirety of the paragraph, "Advanced
7 Request for Qualifications".

8 So as we've been discussing, so under the heading, "Advanced
9 Request for Qualifications", or RFQ:

10 "The approval of the private sector-driven
11 procurement methodology detailed in this report will
12 begin the procurement process with the issuance of
13 the RFQ in May 2011, five months earlier than the
14 originally planned September 2011 release." (As
15 read)

16 Because this -- this report here is looking at the acceleration of the
17 schedule and how that -- part of how that is done is by releasing the RFQ five months
18 earlier?

19 **MR. REMO BUCCI:** Correct, to get authority to release the RFQ.
20 That's right.

21 **MS. LIZ McLELLAN:** And so the report that we're looking at is
22 dated May 5th ---

23 **MR. REMO BUCCI:** Yes.

24 **MS. LIZ McLELLAN:** --- 2011. And financing is not determined by
25 that time?

26 **MR. REMO BUCCI:** Correct.

27 **MS. LIZ McLELLAN:** It's still a discussion. Is it realistic to suggest
28 that the release of the RFQ could happen in that same month, despite financing not

1 being decided?

2 **MR. REMO BUCCI:** It was addressed in the RFQ, yes.

3 **MS. LIZ McLELLAN:** Right. But -- so typically three weeks or
4 however long would have been left for that decision to be made, is that not a
5 compressed schedule?

6 **MR. REMO BUCCI:** Yeah, I don't recall the dynamics of the
7 schedule. I think it might go back to what was communicated previously in terms of the
8 procurement schedule. That might be what the acceleration is about. But I frankly - I --
9 to be honest, I just don't remember.

10 **MS. LIZ McLELLAN:** Okay. So in the interest of time -- and we're
11 going to talk about the fact that, you know, in May, there are different models that are
12 being presented to the City by Deloitte, and there's a presentation by Deloitte on two
13 models; specifically, the DBM model and the DBM model with short-term financing. And
14 at this time, Deloitte has provided the City with various options for short-term financing?

15 **MR. REMO BUCCI:** Correct.

16 **MS. LIZ McLELLAN:** Okay.

17 So if we could please pull up -- turning to June 2011, if we could
18 please pull up DEL0015359?

19 **--- EXHIBIT No. 082:**

20 DEL0015359 – Draft Ottawa LRT Analysis of Alternative
21 Financing Options 14 June 2011

22 **MS. LIZ McLELLAN:** Great, thanks.

23 So Mr. Bucci, this is a June 14, 2011, presentation by Deloitte, and
24 it's titled, "Analysis of Alternative Financing Options"; do you recall who this presentation
25 was given to?

26 **MR. REMO BUCCI:** It -- I'm going to -- when -- so I think this was a
27 background document or a document that we were provided, I'll call it, to the program
28 team. It would have been made available to, you know, the key decision makers on the

1 City -- at the City.

2 Whether we presented this to the Executive Steering Committee,
3 for example, where the City Managers sat, I don't recall specifically, because that might
4 have been under -- if you look at the format or the other presentation that you saw with
5 the Ottawa -- this -- the sort of City of Ottawa formatting, that would probably mean that
6 it was an Executive Steering Committee meeting.

7 This probably was more of project deliverable to be used by the
8 City as however it needed to. It may not have been specifically for an Executive
9 Steering Committee meeting.

10 **MS. LIZ McLELLAN:** Understood. So if we could please scroll to
11 Slide 7, and I believe that's page 8 of the PDF, if that's easier? Perfect.

12 So in this presentation -- and if we're looking at the timing, this is
13 June 14, 2011, so the RFQ clearly has not gone out?

14 **MR. REMO BUCCI:** Correct.

15 **MS. LIZ McLELLAN:** And there's a discussion on this slide of a
16 two-envelope procurement where the DBFM model is offered as a base case with the
17 DBMf as a fallback which would only be opened if compliant DBF -- DBFM bids were
18 not received?

19 **MR. REMO BUCCI:** That was an option that was being considered
20 to deal with a potential issue with the financing, correct, if a decision hadn't been made
21 to proceed, correct.

22 **MS. LIZ McLELLAN:** And was the possibility of the City potentially
23 receiving non-compliant DBFM bids and requiring a fallback option a real concern?

24 **MR. REMO BUCCI:** No. The concern we had here is from an
25 evaluation perspective in the RFP when you look at the price.

26 And sorry; two things. First of all, the fact that you have to raise
27 financing brings a project finance component to it. It's a consideration in the RFQ to
28 ensure that you're evaluating the ability of the proponents to raise the financing. So,

1 that's the first thing, and that experience and capability, and also, the ability to provide
2 their own investment capital we talked about earlier, the equity; that's an important
3 consideration of the RFQ.

4 For the purposes of the RFP, thinking ahead, because you don't
5 want to confuse the market because of that particular issue, the obvious question
6 someone would ask is, well, if you've got financing, private financing inclusive of a
7 particular deal structure, that in and of itself will mean it costs more than an option
8 where the City is paying as you go, DBM. So, therefore, how are you going to evaluate
9 those two options on a cost perspective because the cost is, just by math, different?
10 So, that's the concern that we had.

11 **MS. LIZ MCLELLAN:** Right.

12 **MR. REMO BUCCI:** Deloitte, I should say. I should be more
13 specific. The concern that Deloitte had is you're going to have an evaluation problem at
14 the RFP, to be very blunt. If you have this functionality, it is never a good idea to issue
15 a document with too much choices. Proponents or bidders want to see the least
16 amount of variability as possible.

17 **MS. LIZ MCLELLAN:** So, who suggested that, do an envelope
18 approach? Was it Deloitte?

19 **MR. REMO BUCCI:** No, it was a consideration that -- one of the
20 considerations that was put on the table to deal with the potential issue of DBM versus
21 DBFM in the event that certainty or a decision might not be made, you know, prior to the
22 RFP being released. So, it was an option that was being considered. If you can think of
23 where the project team was in May or June of that year, a decision yet hasn't been
24 made to proceed, you know, DBFM versus DBM. An RFQ needs to go out. That
25 requires a significant amount of drafting. So, you build that drafting in a way that allows
26 you to deal with the ultimate decision that's going to be made.

27 There may be some complexity that you might see in early drafting,
28 because those choices are still on the table, but that's from a project management

1 perspective to ensure that you can meet the timelines. It's easier to take things out than
2 add things in.

3 **MS. LIZ MCLELLAN:** Okay. And then just turning to the pros
4 column, the first bullet states that,

5 "The possible structure of the RFP and having a potential
6 spend target, along with the two-envelope process, offers
7 bidders maximum flexibility to allocate risk, seek
8 innovations and squeeze costs to meet the City's
9 objectives, e.g., the spend target."

10 What is meant by use of the phrase, "squeeze costs" in this
11 context?

12 **MR. REMO BUCCI:** Can I see the balance of the pros there, if you
13 don't mind? Can you just ---

14 **MS. LIZ MCLELLAN:** Yes, of course. If you wouldn't mind just
15 scrolling down to the bottom of the page? Yes.

16 **MR. REMO BUCCI:** I can see just -- can you just a little bit -- I
17 wouldn't mind if I could see the entire slide. I'd just like to see the top again. I just need
18 to read the whole thing.

19 **MS. LIZ MCLELLAN:** Yes, of course.

20 **MR. REMO BUCCI:** Yes, I think what we were getting at here was
21 the financing. Because you're basically -- and you've got the long-term finance with the
22 short-term finance. So, this is connected to the topic we talked about earlier.

23 In terms of cost pressure, just looking at the cost, the long-term
24 financing is what's causing the funding pressure. So, the ability to have two envelopes
25 whereby let's say in the ideal world you could find a way to cure that valuation
26 complexity I just talked about, the City could then have the choice to say, well, this DBM
27 with small "f", it's X dollars lower than the DBFM. I've got a budget I need to meet, as
28 you would in any project, therefore, I have a choice. I could take that, if it's better for

1 me, if it's better suited to meet my budget.

2 **MS. LIZ MCLELLAN:** So, we can take that document down,
3 please, and then I have another document that I'd like to put to you, Mr. Bucci. So, the
4 next document ID is DEL 0109898.

5 **--- EXHIBIT NO. 083:**

6 DEL0109898 – Letter from Deloitte to City of Ottawa 29 June
7 2011

8 **MS. LIZ MCLELLAN:** Great. So, Mr. Bucci, this is a letter dated
9 June 29, 2011 from Deloitte addressed to Daniel Farrell from the City. Are you familiar
10 with this letter?

11 **MR. REMO BUCCI:** Yes.

12 **MS. LIZ MCLELLAN:** Okay. And so, this is a supplementary letter
13 to the February 2011 report, correct?

14 **MR. REMO BUCCI:** Yes.

15 **MS. LIZ MCLELLAN:** Right. And then, so, if we could please
16 scroll to page 4? It's the last page. So, under heading three, "Conclusion", so the letter
17 concludes with a recommendation that,

18 "The DBFM model be the selected delivery model for the
19 City based on benefits from bundling design, construction
20 and maintenance, and the addition of the large "F" for
21 short-term and long-term financing combination, which
22 will help ensure Project Co. meets applicable
23 performance standards through an ongoing certification
24 process."

25 **MR. REMO BUCCI:** Correct.

26 **MS. LIZ MCLELLAN:** And what is the long-term certification
27 process?

28 **MR. REMO BUCCI:** Sorry, can you point to me where that is

1 again?

2 **MS. LIZ MCLELLAN:** It is -- so, in the second paragraph about five
3 sentences down, or starting at the fourth sentence, "By following this approach, the City
4 can ---

5 **MR. REMO BUCCI:** Yes.

6 **MS. LIZ MCLELLAN:** --- ensure that payment is only made once
7 an ongoing certification process has verified that applicable performance standards are
8 met over the term of the contract."

9 **MR. REMO BUCCI:** Yes, but this gets to, really, the -- either the
10 construction -- the milestone payment regime. Ultimately, they got selected in the
11 project, which is -- which those payments only flow when the conditions of that payment
12 have been met and certified, I mean ultimately certified by a third party, but I don't think
13 we're getting at this so much, but this is really getting at the aspect that you would have
14 certainty that those payments would give you certainty be it either schedule or budget.

15 **MS. LIZ MCLELLAN:** Okay.

16 **MR. REMO BUCCI:** Which comes through, and if I may, Ms.
17 McLellan, the reason this letter was written, because it's a bridge between the
18 procurement options report, which had the four short list of options, I don't believe the
19 value for money was released with the July report. So, this letter was written to say the
20 procurement option report kind of leaves four options on the table, and now you've
21 selected one and here is why it was selected.

22 **MS. LIZ MCLELLAN:** And I would put to you, too, that the DBFM
23 model was actually in third place for the best option for the City in the procurement
24 options report. So, this supplemental letter is also a bridge to say this is why the DBFM
25 actually is Deloitte's first recommended choice now?

26 **MR. REMO BUCCI:** Yeah, and I -- correct, but if you don't mind, I
27 wouldn't characterize it as being third place, because you always have to go back and
28 look at the criteria that were being used. The procurement options report, it had cost

1 but it also had more qualitative factors that were being considered. I would characterize
2 it and say the procurement options report concluded that four options would meet the
3 City's criteria, and carrying it forward, and I think this is the way it was positioned, you
4 now have to make a choice on which of those best suits the funding approach you're
5 going to take, and will deliver value, because recall that the procurement options report
6 did not do a deep dive trade off, comparison of costs versus value, like a value for
7 money report would do.

8 So, I appreciate -- you're right, if you look at just the pure
9 mathematical ranking, but I wouldn't interpret it that way. The procurement options
10 report short listed four, and the idea was to carry those forward into a more discrete
11 analysis. This letter is -- the public at the time wouldn't have the benefit of the work that
12 was done, some of which you are seeing in the PowerPoint. So, it's saying, okay, now
13 a decision has been made, and this is why -- you know, this is the basis of that decision,
14 to support the Council report.

15 **MS. LIZ MCLELLAN:** Okay, and that's fair. And then, so in the
16 second paragraph, the final sentence reads, "Since penalties can be applied in the case
17 of poor performance," and I would assume that's either -- you know, whether it be
18 maintenance payment mechanisms later on, or a delay in a milestone payment if a
19 milestone payment is not met, and then it says, "This form of security is highly liquid and
20 provides the City with a hammer to enforce compliance and, therefore, maximize value
21 for money." And what is meant by the use of the word, "hammer" to enforce
22 compliance?

23 **MR. REMO BUCCI:** There's two words there. If I could rewrite this
24 letter, I would. First of all, penalties shouldn't be penalties; it should be incentive
25 mechanism. And hammer, I think, recognizing that this was -- this letter was written
26 with the audience also being the public, and the concern that the public had on ensuring
27 that the project, whichever mode of delivery, because remember, we're in the world of
28 pick a contract mode that key considerations being budget, cost control, schedule.

1 So, really, what this is getting at is because you're paying on
2 performance, which might have been a better way to describe this, and that payment is
3 subject to -- from the City's side, it's deferring payments because of that payment upon
4 performance, then it gives it incentives for additional leverage to ensure that those
5 conditions are being met, as compared to in a DBM scenario, where you're paying as
6 you go. And typically, with construction projects, you find out about all the issues at the
7 end of construction, and if you've paid all of the project costs other than the construction
8 lien amount, your leverage to try to resolve those issues has significantly diminished.

9 So, I think that was trying to get the -- you know, the metaphor to
10 the public and saying this contract gives greater certainty that the obligations of cost
11 and schedule would be met as compared to a DBM.

12 **MS. LIZ MCLELLAN:** Okay. And at this point, though, I believe
13 the analysis on the 50 versus -- oh, pardon me, the 15 versus 30-year maintenance
14 term, that's still in play, but either way, the City knows that the relationship with Project
15 Co. will be over the longer term, the maintenance term at the end of the day after
16 construction is done. And so, preparing for that relationship, does it -- is it conducive to
17 a successful partnership to suggest that the City would have a hammer to enforce
18 compliance?

19 **MR. REMO BUCCI:** I think that's taking that out of context, to be
20 honest with you. You're leading to -- at this point in time in the project, the City needs to
21 make an important decision. So, within the context of security or performance, two
22 contracts, you're comparing them again. So, remember, you haven't prequalified it.
23 You don't know who your proponents are. You have no context of performance yet.

24 So, this is just trying to provide the illustration that the DBFM does
25 have more tools in it to ensure that the obligations of the Project Co. can be met. I think
26 that's just clear in terms of the structure of the document, and the fact that payment is
27 made upon performance. I think taking the word "hammer" out of context in the sense
28 that the City is going to be hammering whoever they have a contract with down the

1 road, no, that's not what it was intended for.

2 **MS. LIZ MCLELLAN:** Okay. So, we can pull this document down
3 and just in the interest of time, the RFQ ultimately isn't released until June 30th, 2011. Is
4 that consistent with your recollection?

5 **MR. REMO BUCCI:** It is, having gone back through the schedule,
6 yes.

7 **MS. LIZ MCLELLAN:** And then the DBFM model is included in the
8 RFQ. I believe you were part of drafting that language?

9 **MR. REMO BUCCI:** Correct. So, where we are, let's say, or
10 collectively where the project is at in early July is the RFQ now says it's going to be
11 DBFM, maybe 15 or 30 years. For the purposes of the RFQ, I'll assume there's going
12 to be \$400 million of long-term financing for the purposes, as I mentioned earlier, to
13 allow the proponents to bring the right expertise as part of that pre-qualification process,
14 and to set the components of the financial submission requirements, which are really
15 about credit quality, track record, you know, what condition they were at that point in
16 time. So, that sent a signal to allow the pre-qualification to occur, and then allowed time
17 for the RF -- as part of the RFP drafting to make the final decision on the financial
18 structure, as well as the term, the 15 versus 30, and that was done later in the fall.

19 **MS. LIZ MCLELLAN:** And then, so, on the RFP, so we know
20 there's that May 2011 acceleration report, and we know in that report it suggested that
21 the RFQ will go out in May 2011. Now, the RFQ ultimately isn't released until late June,
22 like, essentially July 2011, so that's pushed back a couple of months. Does that affect
23 the release of the RFP?

24 **MR. REMO BUCCI:** No.

25 **MS. LIZ MCLELLAN:** And why not?

26 **MR. REMO BUCCI:** The RFP, the critical path of the RFP is
27 technically the technical specifications which require a reference to onset design,
28 reference to concept design, depending on the complexity of the project is between 20

1 to 30 per cent design requirements. So, behind the scenes -- and that's not the only
2 thing. The other is the schedule required. So, behind -- like, I shouldn't say behind the
3 scenes. Within the program office, if at that point in time you're looking at the schedule,
4 the RFQ is basically drafted. You've got to put -- you've got to develop a process to
5 evaluate it, but that's very well known and can be -- you've got full control over that.

6 In terms of getting the RFP ready and up to the street, the technical
7 specifications need to be drafted. So, that work is -- the technical team is working very
8 hard on that. So, that was probably the critical path. The other elements would have
9 then been the schedules that need to be drafted or tailored to suit the AFP to the LRT
10 project, and LRTs generally, payment mechanism being one, construction payments,
11 and that is less about, let's say, the time needed to draft it as compared to some of the
12 strategic decisions that need to be made.

13 So, I'd have to go back and look at the schedule in its entirety, but
14 generally, the critical path item I'm getting the RFP out is the technical specifications,
15 which is driven by the reference concept design, because that's what the engineers use
16 to build the technical requirements of the project.

17 **MS. LIZ MCLELLAN:** Okay. And so, we won't pull it up, but
18 you've spoken to the July 14, 2011 report in which it's suggested that Council approve --
19 or recommended, not suggested, recommended that Council approve the DBFM model.
20 So, that's July 14, 2011. So, Council has not approved the DBFM model just yet, but
21 the RFQ has already gone out on June 30th, and is that typical?

22 **MR. REMO BUCCI:** I would have to say within the context of
23 where this project was at, again, as I mentioned earlier, in the ideal world, the funding
24 program, the funding agreement, would have taken -- let's say it would have taken into
25 combination not just the cost of the project, but the mode of delivery. And subsequent
26 projects to this that consider these sorts of structures where you have private capital at
27 risk, you accelerate those discussions and confirmations as part of that procurement
28 options report. So, if you looked in other jurisdictions where we work for municipalities,

1 that type of report would have had a conclusion with a value for money, with a delivery
2 model, and made clear that, you know, funding was in place and, therefore, the mode of
3 delivery was now set, RFQ, RFP, et cetera.

4 So, I just want to make clear, I'm not trying to evade the question,
5 that for this project, because as, you know, both the province and the City were moving
6 ahead with dealing with this LRT that was going to be delivered with an AFP, it required
7 this type of process. The alternate would have been just to wait and get the RFQ out
8 later, which was a concern, again, because we, collectively "we", thought that getting
9 the RFQ into the market with a longer open period, I think that's the one of the ways we
10 cured it, was signaling that the project was going ahead, a decision had been made.
11 Because of the market soundings, the market knew that some, you know, key
12 components needed to be confirmed such as the amount of long-term financing and the
13 term. But generally speaking, there wasn't going to be a surprise that the RFQ was out,
14 and the interest of mobilization would begin.

15 **MS. LIZ MCLELLAN:** Okay. So, turning to affordability, how
16 important was affordability to the City in the selection of a procurement model and
17 throughout the procurement process?

18 **MR. REMO BUCCI:** It was a factor in the same way as we talked
19 about earlier, the integration. So, when you -- when we first started talking this morning,
20 I talked about the integration and the will -- the real wheel interface, getting the same
21 train service plans that meet the City's requirements. So the advantage of the model
22 was such that you're removing those interfaces, it's with one party and you've got a
23 payment regime that gives you certainty that they're going to be met. So that has also
24 been traded off with "Well, how much is this going to cost me?" just like any buy
25 decision, and you want to make sure that you can get, you know, in simple terms the
26 most for the money that you have to spend. So that's why affordability on any project is
27 significant.

28 **MS. LIZ MCLELLAN:** So let's pull up document number

1 DEL0111652, please.

2 Are you -- would you please share the screen if you have the
3 document up?

4 **--- EXHIBIT No 084:**

5 DEL0111652 – Email from Remo Bucci to Rob Pattison et al.
6 16 September 2011

7 **COMMISSIONER HOURIGAN:** Just hang on one second.

8 **MS. LIZ McLELLAN:** Oh, okay. Sorry, Mr. Commissioner.

9 **(SHORT PAUSE)**

10 **MS. LIZ McLELLAN:** Okay, thank you.

11 So are you familiar with this email?

12 **MR. REMO BUCCI:** Yeah, yes.

13 **MS. LIZ McLELLAN:** This is dated September 16th, 2011, looks
14 like you email a few individuals at IO, or Infrastructure Ontario, along with some of your
15 colleagues at Deloitte. The subject of the email is “Ottawa LTR affordability re: issues
16 and next steps.”

17 So we'll go through the email sort of line by line, the first part. So at
18 the end of -- you say:

19 “At the end of yesterday's call I spent about another
20 hour with Brian, Jeff and Mona to get a handle on the
21 main issue. So here it is as I understand.” (As read)

22 So who is Brian?

23 **MR. REMO BUCCI:** Brian Guest.

24 **MS. LIZ McLELLAN:** Brian Guest of Boxfish?

25 **MR. REMO BUCCI:** Correct.

26 **MS. LIZ McLELLAN:** And Mona I'm going to assume is Mona
27 Monkman, who's the Deputy City Treasurer?

28 **MR. REMO BUCCI:** Correct. And Jeff.

1 **MS. LIZ McLELLAN:** And who's Jeff?

2 **MR. REMO BUCCI:** Jeff Sward. So Jeff and Mona would be
3 working on the Transportation Master Plan. So this is the model, the plan -- or the
4 model, an actual model that sits on top of -- of the Confederation Line for which the City
5 of forecasting not just this project but future commitments with respect to its
6 transportation -- its transit plan, or transportation plan. And this -- that would be the
7 model that ultimately confirms affordability based on the tests that the City was using.
8 It's not just -- it's not just sort of a moment in time, you know, it's a very dynamic
9 analysis. You have to look at a year-by-year basis.

10 **MS. LIZ McLELLAN:** Right, but if we look at the first heading,
11 underneath the first heading, "Political Issue," \$2.1 billion. That's the cost estimate, and
12 eventually it's 2.13 billion we know is the budget as of December 2012. But that 2.1,
13 that's not the estimate for the entire line from the 2008 Transportation Master Plan.
14 That 2.1 is just for Stage 1?

15 **MR. REMO BUCCI:** Correct.

16 **MS. LIZ McLELLAN:** Right. So -- and you're sending this to your
17 colleagues, obviously because you had good reason to communicate this information?

18 **MR. REMO BUCCI:** So Deloitte's, at this time, was now working in
19 a project delivery structure, to be clear. Our client -- our contract is with the City of
20 Ottawa, but once the decision was made to move ahead with AFP, an integrated project
21 team was set up with Infrastructure Ontario. Deloitte's was now working within the
22 financial working group for which -- of which John Traianopoulos and Mona were the
23 notional heads of it, and Laith Qamheiah is with the Bank of Montreal, so they were the
24 capital markets advisor, and this email was part of a series of work that we were doing
25 which culminated in a report which came out later that month, I think -- or I shouldn't say
26 report, it's a PowerPoint -- they made the recommendation of 15 versus 30 in the
27 amount of long-term financing and the method by which affordability should be
28 addressed in the RFP.

1 So it is -- it's a stream, it's a point in time. I don't think it should be
2 taken out of context, frankly. I was reporting back to that group. So Rob, I think, was
3 on the Executive Steering Committee. John was the head of the Finance Working
4 Group. Bruce Beaton, I believe, was Infrastructure Ontario's Project Manager or co-
5 Project Manager for the City of Ottawa.

6 So it was an update, and it was an integrated project team. So this
7 isn't a matter -- I just want to be clear because there's nobody from the City of Ottawa
8 that you see on the email, that's just because I was reporting back to update others as
9 part of the work that we were doing within that, again, integrated project team.

10 **MS. LIZ McLELLAN:** Right, but you're not -- you're not speaking
11 -- like, if we look, for example, at the first heading, "Political Issue," and you say:

12 "2.1 billion, 1.7 construction plus 0.4 for the City is a
13 highly political sensitive target." (As read)

14 So let's start with the first line.

15 **MR. REMO BUCCI:** Sure.

16 **MS. LIZ McLELLAN:** So you're not speaking to the substantive
17 aspects of the RFP or the procurement process at that time, you're speaking about
18 something a bit more contextual; and, specifically, political issues associated with the
19 affordability and cost of Stage 1.

20 **MR. REMO BUCCI:** No, I don't agree with that. This is in the
21 context of an -- we were working to get an RFP drafted, and as part of that -- and I
22 should say there were three elements we were working on: The payment regime during
23 construction milestone payments which had an impact on costs. The second was the
24 amount of long-term financing, which was more or less, I think, confirmed at this point in
25 time, probably at least at this point it was the 400 million; and then, thirdly, how to
26 address affordability in the RFP because Infrastructure Ontario in their RFP program at
27 this point in time had not disclosed affordability caps.

28 So one of the reasons why I'm talking to Infrastructure Ontario here

1 is to inform them, or to help inform the importance of affordability on the project and why
2 it needs to be addressed in the procurement. And that first line is simply getting to the
3 point of this -- in the municipal world of financing the -- or in the municipal world of
4 funding, the levers that a municipal government has to pay for a project are not the
5 same that they are at the province and nor are they at the federal government for whom
6 we advise projects in a similar way.

7 So the context I was setting here is this -- every project has a real
8 budget, to be clear. Budget is always of significance, it doesn't matter who's delivering
9 the project. But because in municipal -- in municipal governance you've got, I would
10 say, much more direct relationship with the public, the commitments typically around
11 things like budget and schedule are much more focused. And I'm not downplaying how
12 important they are at the province and federal government; I'm just saying they're more
13 magnified at the political level.

14 So what I'm trying to get to in this email is affordability is a critical
15 issue here, we need to deal with it in the RFP, and I was of the strong opinion that we
16 needed to have an affordability cap because the funding dollars from the municipality
17 were fixed. And, again, the municipality didn't have the same amount of levers the other
18 level of government had, plus the funding was also capped. The funding agreement
19 didn't have any conditions for financing or increased cost because of inflation, et cetera.
20 It was 600 million, and 600 million. So that's the context of this email.

21 **MS. LIZ McLELLAN:** Right, but then you say in the next
22 sentence, you say:

23 “Concern is that detractors will be seeking any
24 opportunity to criticize the project if this target is not
25 met.” (As read)

26 So who are the detractors?

27 **MR. REMO BUCCI:** Well, I would say the detractors would be --
28 so if you look at the history of infrastructure projects in Canada what's the -- what are

1 the two most critical issues projects in Canada, what are the two most critical issues
2 that typically come up – and I’m talking about this project. It was vastly over-budget and
3 it didn’t meet the schedule. So a public commitment has been made in July that the
4 project will be determined with a certain schedule and a certain cost. A commitment
5 has also been made that the procurement model that’s being selected or the delivery
6 structure, will help facilitate that. So I’m just making the point here, you know, political,
7 you could use the word “policy”. Again, the expectation is, it’s going to be a 2.1 billion
8 dollar project and the schedule is as it is, and if you vary from that, then there will be
9 concerns. Yes.

10 **COMMISSIONER HOURIGAN:** Sorry, can I interrupt? What’s the
11 answer to the question? The question was, “Who are the detractors”? What’s your
12 answer to that?

13 **MR. REMO BUCCI:** I would say any critics of the project, yeah. I
14 think it’s just a general – maybe it’s just a loose drafting, to be frank, but I think it’s just a
15 matter of saying, “This is the public’s expectations that have been set and if you don’t
16 meet it, you’re opening yourself up to criticism”, maybe that would be a better way to
17 have written that sentence.

18 **MS. LIZ McLELLAN:** Okay. And then in terms of you suggesting
19 that this was not our policy issue potentially, so you do speak about the political aspect
20 first and the heading of the discussion underneath is with respect to budget, and then
21 you say “It’s a highly political sensitive target.” So what did you mean by “highly political
22 sensitive target?”

23 **MR. REMO BUCCI:** After the commitment’s been made, right? If
24 you go back to the July report, a commitment has been made to deliver the project for a
25 certain budget, so yes, that’s the expectation.

26 **MS. LIZ McLELLAN:** Okay.

27 **MR. REMO BUCCI:** As it would be with any of the structured
28 project, frankly.

1 **MS. LIZ McLELLAN:** And who – so I’m assuming the political
2 issue was a main issue on that call, and who communicated that the political issue, for
3 example, along with affordability is also discussed, and then the campaign issues I’m
4 going to assume is a lesser issue, they’re communicated that it’s a main issue.

5 **MR. REMO BUCCI:** I wrote the email so I think what I’m – and
6 because – just knowing typically how I write these, the bolded topics were all the drivers
7 that we needed to consider for – on how to deal with affordability in the RFP. I don’t
8 think I’m saying one is greater than the other and I appreciate you’re looking at, you
9 know, some of the words specifically there, but –

10 **COMMISSIONER HOURIGAN:** All right. All right. Again, I’m
11 going to interrupt the witness. A very specific question was put to you. You talk about
12 these are the main – this is the main issue; counsel asked you, quite properly, who
13 raised the political issue? What’s the answer to that question?

14 **MR. REMO BUCCI:** Oh, I don’t think any – this is my own
15 assessment, sorry.

16 **COMMISSIONER HOURIGAN:** So your evidence is nobody
17 raised this with you?

18 **MR. REMO BUCCI:** No.

19 **COMMISSIONER HOURIGAN:** All right. We’ll take that, thank
20 you.

21 **MS. LIZ McLELLAN:** So let’s move on to the Geotechnical Risk
22 Sharing and, obviously, this is a related challenge to the issue of affordability, and the
23 fact that the City did have a desire to eliminate as many unknowns or risks as possible;
24 is that consistent with what your understanding was at the time?

25 **MR. REMO BUCCI:** As a concern with respect to costs, yes.

26 **MS. LIZ McLELLAN:** Right. And there was also an interest at the
27 time to transfer as large of a share of the risk associated with Stage 1 as possible to the
28 Project Co?

1 **MR. REMO BUCCI:** In the – correct, in the context of trying to get
2 certain account costs, yes.

3 **MS. LIZ McLELLAN:** Right. Yes. And a key area of that risk, from
4 what I understand for Council and City staff, was the construction of the tunnel?

5 **MR. REMO BUCCI:** Yeah, even the market – anytime you have
6 tunnelling on a project, it's a concern, yes.

7 **MS. LIZ McLELLAN:** And what would drive the risks associated
8 with the construction of the tunnel?

9 **MR. REMO BUCCI:** The linear nature of it, the fact that
10 notwithstanding that you can, you know – you can do exploratory analysis through
11 boreholes, you can't drill enough boreholes to get certainty that the soil condition
12 between two boreholes might be different. That also could impact the type of boring
13 machine that you're using. So the nature – the disaster scenario would be you think you
14 have soft soil so you pick a tunnel boring machine that's suitable for soft soils and then
15 you hit rock that didn't come up in the data points and now you need a different type of
16 boring machine or a different type of tunneling technique and all of a sudden your
17 schedule and costs are significant at risk.

18 **MS. LIZ McLELLAN:** Yes. How did bidders initially respond to the
19 geotechnical risk transfer issue?

20 **MR. REMO BUCCI:** During the RFQ – during the market
21 soundings that we conducted – we had specific ones on this. The general concept was
22 provide as much data as you possibly can, do as much exploratory, you know, through
23 boreholes; effectively drill as many boreholes as you can and that tells the tactic that the
24 City used. The second would be to provide that information in a way that the bidders
25 can use it. At this point in time a decision hadn't been made yet on specific legal issues
26 like reliance and that gets the risk allocation. But, generally speaking, I think all parties
27 knew and believed the best way to alleviate the concern was to provide as much data
28 as possible through the boreholes.

1 And then so I understand that later the concept of a geotechnical
2 risk ladder was implemented?

3 **MR. REMO BUCCI:** Yes. This was October; so that would have
4 been sometime in the spring of that next year, I think, or late winter, yeah.

5 **MS. LIZ McLELLAN:** So if we could please pull up document
6 COW0523188.

7 **--- EXHIBIT No 085:**

8 COW0523188 – Ottawa’s Light Rail Transit Project OLRT
9 Executive Steering Committee 10 August 2012

10 **MS. LIZ McLELLAN:**Great. So this is a deck, and I believe it’s a
11 presentation to the Executive Steering dated August 10th, 2012. And if we could please
12 turn to slide 19.

13 So in terms of the geotechnical risk and impact on bidders, I
14 understand that the way that the geotechnical risk-sharing issue was dealt with, was to
15 introduce incentives; is that correct?

16 **MR. REMO BUCCI:** Yes.

17 **MS. LIZ McLELLAN:** And, for example, so if there’s 100 per cent
18 risk transfer from the City to the Project Co, which it looks like that’s the situation for
19 Option 1, how does that impact a bidder in terms of let’s start first on the right-hand
20 column with 60 million dollars on to the affordability CAP?

21 **MR. REMO BUCCI:** I’m trying to remember the context of this. I
22 don’t believe I was the author of this presentation. I believe the numbers are that you’re
23 seeing the net present value came out of the results of the risk of the – the borehole
24 data that was selected, plus the geotechnical information that was put together by the
25 City’s Owner Engineer Team. And based on the certainty or the probabilistic
26 assessment of that, what the likelihood of those – that the conditions were consistent
27 enough to meet the – you know, the assumed cost estimates. So I think the values
28 came off that.

1 In terms of the impact to the proponents, I think it would be based –
2 or the bidders at that point in time, it would be based on their own assessment, their
3 read of that same data to understand if they had the same viewpoint of the risk.
4 Because remember the risk at this point in time, on this slide anyways, is coming from
5 the City's Owner Engineer Team. So I would say, it would be based on the proponent's
6 view of the risk and interpretation of the data in the geotechnical baseline.

7 **MS. LIZ McLELLAN:** And then in terms of subtracting 80 million
8 from the net present value figure, which I understand informed the financial evaluations
9 and scoring, how would that subtraction of 80 million dollars from the net present value
10 of a project impact a bidder?

11 **MR. REMO BUCCI:** So the financial evaluation was out of 450
12 points, right?

13 **MS. LIZ McLELLAN:** Yeah.

14 **MR. REMO BUCCI:** And for each percentage difference on net
15 present value, there's a 30-point reduction and -- on your score relative to the lower
16 bidder. In order to get, you know, the math -- if, you know, roughly, the construction
17 costs are about -- I don't have the net present value in front of me -- 1.8 billion on the
18 lower when you take the discount rate into account, so you can take the 80 million,
19 divide that into 1.8 billion and then take the gearing I just mentioned in terms of the 30
20 points for 1 percent and you can determine what the impact is.

21 **MS. LIZ McLELLAN:** And then if we just scroll down to Slide 20,
22 please, just the next slide?

23 So I appreciate you didn't necessary draft this -- this debt, but this is
24 option 3 --

25 **MR. REMO BUCCI:** Yeah.

26 **MS. LIZ McLELLAN:** -- and it looks like the risk sharing is sort of
27 the lowest option and there's no incentive. Is that consistent with your recollection?

28 There's no change to affordability cap and there's no change to net

1 present value for the bidder?

2 **MR. REMO BUCCI:** Yeah. Again, I haven't looked at this -- I'm
3 familiar with the context, I'm just -- I'm not trying to be difficult, just this particular
4 presentation is -- contextually, it all makes sense to me, and the options that were being
5 considered, so I'll just say yes.

6 **MS. LIZ McLELLAN:** Okay. And then the end result, do you recall
7 what the final -- the final three bidders as part of the RFP process chose, in terms of risk
8 transfer on the -- on the geotechnical risk?

9 **MR. REMO BUCCI:** I believe they all accepted the risk -- the
10 geotechnical risk, if I remember correctly.

11 **MS. LIZ McLELLAN:** Right. So based on looking at this risk
12 ladder and with your recollection in terms of how bidders are evaluated, was there really
13 any other practical option for a bidder other than to select rung one, especially if they're
14 predicting that the other two may also selection option 1?

15 **MR. REMO BUCCI:** Well, I don't -- I don't agree with that because
16 what's missed in all of this is, during the period of time from the -- from the previous year
17 -- because this is August 2012, the RFP has been out since -- it got released in
18 November 2011, late 2011. There were a significant amount of commercial in
19 confidence meetings with each of the three pitches.

20 So the geotechnical risk issue and the City's assessment of it and
21 its definition of the geotechnical baseline was not done in a vacuum. It was done with
22 input from each of the three Proponents. And the risk ladders that we're talking about
23 here is not a new concept. In fact, it's been used on other projects; for example, Port of
24 Miami Tunnel. So I would say at this point in time, collectively we now, the City,
25 Infrastructure Ontario, and the advisors are now in a place we've got input from the
26 Proponents. We believe we provided the suitable amount of information to allow them
27 to make a decision -- and remember; these are the most qualified bid teams who have
28 the experience, who have done this before, because it was an important factor in the

1 evaluation of the REQ submissions. And going back and forth with the Proponents
2 during the commercial in-confidence meetings, we've now gotten to a place again
3 collectively whereby we believe it's biddable; it's going to meet their needs and allow
4 them to make an appropriate decision with the information that they need; and the City's
5 interest, which you see on this slide -- because I'm sure there'd be similar presentations
6 that each of the three bid teams would have had to make to take this up internally, so I
7 think just looking at this and making that conclusion, I don't think is fair. You have to
8 look at the entire procurement process, and I think -- I believe at this point in time that
9 we had a commercially fair mechanism because it took input from all of the three bid
10 teams.

11 **MS. LIZ McLELLAN:** Okay. So we can -- we can communicate --
12 oh, sorry, go ahead, Mr. Bucci.

13 **MR. REMO BUCCI:** No, I'm done. I didn't have anything more to
14 say.

15 **MS. LIZ McLELLAN:** Okay. So we can take this -- we can take
16 this slide deck down.

17 So I want to discuss the debt swap and your role on the Credit
18 Committee, which you spoke to in your Commission interview. And so for certainty, the
19 debit swap has been covered over the course of these hearings, but as we understand
20 it, it was to facilitate RTG being the maintainer in Stage 2, and the fact that there would
21 be consent required from the lenders to amend initial agreements in order to have that
22 happen, and the City effectively stepped into the shoes of the lender.

23 **MR. REMO BUCCI:** Ms. McLellan, could I add one more important
24 factor to that?

25 **MS. LIZ McLELLAN:** Yes.

26 **MR. REMO BUCCI:** Much like the discussion we were just talking
27 about, any time we're talking about private financing, the funding mechanics for Stage 2
28 were no -- were similar to Stage 1, in the sense that any financing was non-eligible for

1 funds shared federally and provincially, so all of those costs were to be borne by the
2 City.

3 **MS. LIZ McLELLAN:** Correct. Okay.

4 So in addition to you facilitating Stage 2, with the City stepping into
5 the shoes of the lender, the long-term lender, this arrangement was also beneficial to
6 the City. Is that fair to say?

7 **MR. REMO BUCCI:** For the purposes of -- at the time that the debt
8 swap was made was beneficial to enable the Memorandum of Understanding to be
9 confirmed, the role of RTG to be confirmed, and to begin -- and most importantly, to
10 begin with the procurement that was to follow based, on the schedule that was in place
11 at that point in time. So it took certainty -- it took the uncertainty of lender consent off
12 the table.

13 **MS. LIZ McLELLAN:** Well, it also provided the City with additional
14 information, such as long-term lender advisor reports and remedial rights to the lenders
15 as well; isn't that correct?

16 **MR. REMO BUCCI:** That was a benefit to the City, but not the
17 primary purpose for the debt swap.

18 **MS. LIZ McLELLAN:** Right. Okay. And so to your recollection,
19 was the debt swap implemented sometime in between late summer 2017 and the early
20 fall?

21 **MR. REMO BUCCI:** The decision to move with the debt swap was
22 done in parallel with the confirmation of the Memorandum of Understanding, because I
23 think it was in the spring of 2017. And then it took some time then to execute it because
24 the City had to prepare or sent another debenture, so I don't think the swap occurred
25 until late in the summer -- later that summer.

26 **MS. LIZ McLELLAN:** Okay.

27 **MR. REMO BUCCI:** Just because of mechanics.

28 **MS. LIZ McLELLAN:** But it's -- so the swap is basically an option,

1 or it's decided in the spring, and in the summer of 2017 it becomes finalized?

2 **MR. REMO BUCCI:** It's decided in the early winter, confirmed
3 through the approval of the Memorandum of Understanding. Because in order to get to
4 an agreement with RTG on the scope of services for Stage 2, the maintenance
5 services, the provision of vehicles, the Belfast Street facility, and the support during
6 procurement process, the lender and the other -- there were two other components to it:
7 How to deal with the system integration risk; for example, who was preparing the Thales
8 system, and the lender consent. So those were three things that needed to be
9 confirmed prior to moving with the procurement. The debt swap facilitated the lender
10 consent, effectively bought time for the City to take that off the table.

11 **MS. LIZ McLELLAN:** Right. And turning to the Credit Committee?
12 When were you appointed to the Credit Committee?

13 **MR. REMO BUCCI:** It would have been -- I don't know precisely,
14 but it would have been roughly in parallel with the mechanics occurring. So probably in
15 the summer of 2017.

16 **MS. LIZ McLELLAN:** Okay.

17 **MR. REMO BUCCI:** I think the first meeting was in September. So
18 it would have been prior to that.

19 **MS. LIZ McLELLAN:** Okay. And so you were doing -- it's fair to
20 say you were doing work then for the Credit Committee in the summer of 2017?

21 **MR. REMO BUCCI:** Well, there was no work to do, to be frank.
22 The -- there was a -- there was an orientation session that was put in place to, basically
23 -- I should be careful here. I -- so there was some -- so effectively the City got mobilized
24 with its Credit Committee. The governance of that was set and -- in preparation for
25 meetings that would follow, but in terms of work, there was no real work other than
26 attending the meetings, frankly, or -- I mean, we were working on the -- collectively me
27 again, or I should say, were working on executing the deliverables of that Memorandum
28 of Understanding up to the variations to the project agreements that were needed, plus

1 the procurements associated with Stage 2. That's where the work was.

2 **MS. LIZ McLELLAN:** Okay. And what was the mandate of the
3 Credit Committee?

4 **MR. REMO BUCCI:** To -- the mandate of the Credit Committee
5 would have been to create a governance structure within the City to oversee that, the
6 fact that it had stepped in to the -- to the shoes of a long-term lender.

7 **MS. LIZ McLELLAN:** Okay. And who were the other members of
8 the Credit Committee?

9 **MR. REMO BUCCI:** I don't -- I don't recall. You can get that from
10 the City. You probably should get that from the City, actually.

11 **MS. LIZ McLELLAN:** Okay. And do you recall there being any
12 formal or informal guiding principals for the committee with the view to the role of the
13 city as lender versus owner on the project, on stage one?

14 **MR. REMO BUCCI:** Yeah, it's probably best to get direction from
15 the City on that, but generally the orientation was to draw a distinction between what the
16 role of the lender was relative to the credit committee, versus role as sponsor in the
17 project agreement.

18 **MS. LIZ McLELLAN:** Right. So keeping those two roles separate
19 was important then?

20 **MR. REMO BUCCI:** Correct.

21 **MS. LIZ McLELLAN:** And what approach generally was the City
22 going to take to a position as lender versus owner?

23 **MR. REMO BUCCI:** I'm not sure I can speak on the City's behalf
24 there; I would just say that -- and, again, that's probably best placed to the City.

25 **MS. LIZ McLELLAN:** Well, based on your understanding on the
26 Credit Committee.

27 **MR. REMO BUCCI:** Can you repeat the question then, please?

28 **MS. LIZ McLELLAN:** Based on your understanding at the time

1 and as a member of the Credit Committee, what was your understanding?

2 **MR. REMO BUCCI:** Of the City's role?

3 **MS. LIZ McLELLAN:** Of the City's approach to stepping in – of
4 the City's approach as lender on the project?

5 **MR. REMO BUCCI:** Understood. Okay. I would just say that
6 much like with any other, let's say, request that might come out of the Credit Committee,
7 the City would review it within the context of what the agreement said and what it's
8 obligations were, you know, to make a commercially reasonable decision based on any
9 request that came out of the Credit Committee. And there were not very many, frankly.

10 **MS. LIZ McLELLAN:** Okay. I understand that Ms. Simulik, the
11 City Treasurer, did not sit on the Credit Committee; that's correct?

12 **MR. REMO BUCCI:** Correct.

13 **MS. LIZ McLELLAN:** But that the Credit Committee reported to
14 Ms. Simulik?

15 **MR. REMO BUCCI:** The Credit Committee was part of the City's
16 overall governance structure, so, yes, partially. It may have also reported – again, you
17 should get this from the City but it might have been under the Executive Steering
18 Committee.

19 **MS. LIZ McLELLAN:** Based on your understanding, as I assume
20 you would have been part of the reporting to Ms. Simulik?

21 **MR. REMO BUCCI:** Ms. Simulik would have been – in her role as
22 City Treasurer, it would have been under remit in terms of the City debt, for example; so
23 there's a reasonable sort of connection there.

24 **MS. LIZ McLELLAN:** But based on your role on the Credit
25 Committee, how was that reporting done?

26 **MR. REMO BUCCI:** Oh, it would have been done – sorry,
27 reporting in the sense of – I'm confused by what you mean by "reporting".

28 **MS. LIZ McLELLAN:** During – Ms. Simulik's evidence is that she

1 did not sit on the Credit Committee, but that the Credit Committee reported to her. So
2 I'm asking you, based on your role and your involvement in the Credit Committee, how
3 is that reporting facilitated?

4 **MR. REMO BUCCI:** Okay. Requests – and there weren't very
5 many, and I don't know the details of what was disclosed – I'll be somewhat generic
6 here – just in consideration of confidentiality.

7 If a request came through that credit committee, ultimately Ms.
8 Simulik would be the one who would make the recommendation to accept it or not. So
9 that she relied on members of the Credit Committee or asked them for specific input,
10 depending on whether it was a legal, financial or commercial matter, then ask for some
11 sort of assessment to be made with consideration for her to make a recommendation.
12 So that's the way that the governance ran. And, again, I don't – I think there was
13 maybe one or two issues that had come up, or decisions or inputting that were needed.
14 And that was in coordination with the Administrator – it would have been National Bank.

15 **MS. LIZ McLELLAN:** And who is Ms. Simulik making the
16 recommendation to?

17 **MR. REMO BUCCI:** To National Bank who is the bond
18 administrator – I shouldn't say the "bond administrator", who is the administrator or the
19 agent responsible to coordinate what the short term lenders – I presume this is during
20 the construction phase – the short term lenders – yeah, the short term lenders at this
21 point in time and the City.

22 **MS. LIZ McLELLAN:** And it went to the Executive Steering
23 Committee as well, because I understand Ms. Simulik's sat on the Executive Steering
24 Committee?

25 **MR. REMO BUCCI:** Right. It was strategic enough –

26 **MS. LIZ McLELLAN:** So – and, again, Ms. Simulik spoke to the
27 importance of keeping the City's role as owner and lender being a very important thing
28 to the City and something that they were striving to do during that time. And as I

1 understand it, Ms. Simulik sat on the ESC, as discussed, so what steps did the City take
2 to separate those roles?

3 **MR. REMO BUCCI:** Well, I think the best way I could describe it
4 as saying, is – I mean there was not a lot of administration required because of the –
5 this is where I'm struggling with your question. I think there were only two asks made of
6 the City. So much like with other elements of the project, there was a governance
7 structure put in place; there was a Credit Committee, as I mentioned earlier; requests
8 came forward. Ms. Simulik would have the ability to rely on either her staff or outside
9 advisors to make that consideration. But, again, from the City's side, there was not a lot
10 – the administration of the Credit Committee, the Credit Agreement, was – other than
11 attending meetings, frankly, it wasn't a matter that took a lot of work – I'm struggling to
12 answer your question, sorry, but –

13 **MS. LIZ McLELLAN:** So in addition to you attending and being a
14 member of the Credit Committee, you also attended at the ESC meetings quite
15 regularly?

16 **MR. REMO BUCCI:** I was – in my role as an advisor to the project
17 I was an ex-officio member of the Executive, so a non-decision-making body.

18 **MS. LIZ McLELLAN:** M'hm.

19 **MR. REMO BUCCI:** Correct. So can we please pull up document
20 No. COW –

21 **COMMISSIONER HOURIGAN:** Counsel, before you do that, we'll
22 take the morning break.

23 **MS. LIZ McLELLAN:** Okay, thank you, Mr. Commissioner.

24 **THE REGISTRAR:** Order. All rise, the Commission will recess for
25 15 minutes.

26 --- Upon recessing at 10:43 a.m.

27 --- Upon resuming at 11:01 a.m.

28 **THE REGISTRAR:** The Commission has resumed.

1 **MS. LIZ McLELLAN:** So, Mr. Bucci, further to our discussion on
2 the separation of the City's role as owner and lender, I just wanted to ask a few follow-
3 up questions.

4 So you're attending Executive Steering Committee meetings sort of
5 throughout 2017 and onwards; is that fair?

6 **MR. REMO BUCCI:** Yes.

7 **MS. LIZ McLELLAN:** Right. And you're also on the Credit
8 Committee?

9 **MR. REMO BUCCI:** Yes.

10 **MS. LIZ McLELLAN:** And when you're sitting in on those
11 Executive Steering Committee meetings you also have the knowledge that you would
12 have gained from the Credit Committee meetings; is that fair?

13 **MR. REMO BUCCI:** Yes.

14 **MS. LIZ McLELLAN:** And similarly – pardon me, go ahead.

15 **MR. REMO BUCCI:** I didn't say anything; sorry.

16 **MS. LIZ McLELLAN:** Okay. And, similarly, when you're attending
17 the Credit Committee meetings you also have the knowledge of the discussions at the
18 Executive Steering Committee meetings?

19 **MR. REMO BUCCI:** Correct.

20 **MS. LIZ McLELLAN:** And the same is true for Ms. Simulik. Ms.
21 Simulik is attending Executive Steering Committee meetings and she's also receiving
22 recommendations and making determinations on issues that have been presented to
23 her by the Credit Committee by way of reports, however that's done?

24 **MR. REMO BUCCI:** I don't want to speak for Ms. Simulik, but she
25 was in attendance for those meetings, yes.

26 **MS. LIZ McLELLAN:** So I'm going to suggest that there wasn't
27 really any separation of the City's role as owner and lender and that separating that
28 information gained from both of those committees would be very difficult, if not

1 impossible to do?

2 **MR. REMO BUCCI:** I don't know, respectfully, if I would agree
3 with that. There was no new information, frankly, that I saw. And again, I have to be
4 careful here because there was no new information, frankly, that I saw. And again, I
5 have to be careful here, because of confidentiality, et cetera, but ---

6 **COMMISSIONER HOURIGAN:** Sorry, the witness has now said
7 that twice about confidentiality. Just so you know, you may not be aware of it, IO and
8 the City both brought applications to exclude a number of documents on the basis of
9 confidentiality. I did not allow those applications. I dismissed them on the basis that
10 there was no basis in law for that.

11 We're here for a public inquiry. We don't hide behind
12 confidentiality. We don't answer questions on the basis that it might be confidential. If
13 there is an issue with something you're saying, somebody will let us know, but right
14 now, you should feel free to answer questions fully. Thank you.

15 **MR. REMO BUCCI:** Okay, thank you for that direction. So, then, I
16 will be more firm in saying there was no new information that came about because of
17 the Credit Committee meetings, and frankly, it wasn't that informative to the City, in my
18 opinion, based on my knowledge.

19 **MS. LIZ MCLELLAN:** Mr. Bucci, what I'm saying -- I'm not asking
20 you about new information. I'm asking if discussions and points that you would have
21 made, or recommendations and information from the Credit Committee to Ms. Simulik
22 when she was attending the ESC meetings, it would be very difficult to separate that
23 information and, therefore, difficult to separate the City's role as owner and lender.

24 **MR. REMO BUCCI:** And respectfully, I disagree, because at the
25 Executive Steering Committee meetings at that time, it was about the project
26 agreement, and the administration of the project agreement. Very rarely did the Credit
27 Committee -- did the credit agreement ever come up, other than during the period of
28 time that we get the swap in place to deal with the Memorandum of Understanding.

1 **MS. LIZ MCLELLAN:** Thank you, Mr. Bucci. Those are my
2 questions. Thank you, Mr. Commissioner.

3 **COMMISSIONER HOURIGAN:** All right. Thank you. Next is City
4 of Ottawa.

5 **MR. PETER WARDLE:** Good morning, Mr. Commissioner. Peter
6 Wardle for the City of Ottawa, W-A-R-D-L-E. Mr. Commissioner, I just wanted to note at
7 the outset, and I don't want to eat into my time, but my friend put a number of
8 documents to this witness that were not included in the participants' database, and for
9 which we received no notice. So, I will do what I can with the material I have available
10 to me this morning, and will take it up with Commission counsel outside the hearing
11 room.

12 **COMMISSIONER HOURIGAN:** Well, no, let's deal with it right
13 now. If you have an issue, if there's a document that you need, that's fine. I'll give you
14 extra time. We'll deal with it. So, perhaps you could -- I guess the best way to deal with
15 it is let us know as you go there is a document that you don't have and you need. We'll
16 stop, we'll get you the document, so you have an opportunity to fully examine the
17 witness.

18 **MR. PETER WARDLE:** I appreciate that, Mr. Commissioner, but
19 the purpose of the notice provision was so that we get notice of documents in advance.

20 **COMMISSIONER HOURIGAN:** All right. You do it the way you
21 want, Mr. Wardle.

22 **MR. PETER WARDLE:** Thank you.

23 **COMMISSIONER HOURIGAN:** I'm trying to offer a practical
24 solution, but if you want to stand on your rights, that's fine.

25 **MR. PETER WARDLE:** I'm not standing on my rights. I'm just
26 suggesting that there is a notice of procedure which the Commission has been
27 following.

28 **COMMISSIONER HOURIGAN:** All right. Well, we can put this

1 witness over to tomorrow if that's better for you. Would you that make sense?

2 **MR. PETER WARDLE:** No, I'm not suggesting that in the slightest.

3 **COMMISSIONER HOURIGAN:** No, I'm suggesting that. I'm
4 suggesting that, counsel. You're making ---

5 **MR. PETER WARDLE:** I'm quite ---

6 **COMMISSIONER HOURIGAN:** --- a complaint -- I'm speaking,
7 please. You're making a complaint that you don't have documents. I want to be fair to
8 you, okay? Saying I'll talk to Commission counsel after doesn't help. So, if there are
9 documents you want to see before you examine this witness, we'll stand him down and
10 we'll bring him tomorrow, or we can bring him later this evening. What do you want to
11 do?

12 **MR. PETER WARDLE:** I'm content to proceed, Mr. Commissioner.

13 **COMMISSIONER HOURIGAN:** All right, thank you. Proceed.

14 **--- CROSS-EXAMINATION BY MR. PETER WARDLE:**

15 **MR. PETER WARDLE:** Mr. Bucci, you've had over 20 years'
16 experience working on infrastructure projects?

17 **MR. REMO BUCCI:** In my current role, yes.

18 **MR. PETER WARDLE:** How many light rail projects have you
19 worked on, sir?

20 **MR. REMO BUCCI:** I'm going to count. So, the Region of
21 Waterloo ---

22 **MR. PETER WARDLE:** I don't need you to give us all the -- just
23 roughly.

24 **MR. REMO BUCCI:** Five or six, seven.

25 **MR. PETER WARDLE:** Okay. And in 2011, had you worked on
26 any light rail projects at that time?

27 **MR. REMO BUCCI:** Yeah, I was working -- I was working on a
28 couple at that point. Yes.

1 **MR. PETER WARDLE:** Okay. And can we speak briefly about the
2 Canada Line? Are you familiar with that project?

3 **MR. REMO BUCCI:** Yeah, we studied it and we did a number of
4 market soundings and direct one-on-ones to inform the procurement options report.

5 **MR. PETER WARDLE:** And I understand this was procured as a
6 DBOFM, is that right, sir?

7 **MR. REMO BUCCI:** Correct.

8 **MR. PETER WARDLE:** And SNC was the successful bidder, is
9 that correct?

10 **MR. REMO BUCCI:** They were -- I would characterize them as
11 being the lead. It was a consortium, but they were the primary, as was my
12 understanding, yes.

13 **MR. PETER WARDLE:** And just for the Commissioner's benefit,
14 there were no Canadian content requirements in connection with the Canada Line, and
15 the vehicles were procured from Korea, as I understand it?

16 **MR. REMO BUCCI:** Yes. Procured and assembled, as I
17 understand, yes.

18 **MR. PETER WARDLE:** And it was a driverless vehicle, correct?

19 **MR. REMO BUCCI:** Very similar technology to what the
20 Confederation Line is using in terms of control, yes.

21 **MR. PETER WARDLE:** And the Canada Line was completed on a
22 tight timeline so it could be open for the Vancouver Olympics?

23 **MR. REMO BUCCI:** Correct.

24 **MR. PETER WARDLE:** And it was completed before the
25 Olympics?

26 **MR. REMO BUCCI:** Yes. On -- I believe ahead of schedule, if I'm
27 not mistaken.

28 **MR. PETER WARDLE:** And at the time of procurement of this

1 project, was that part of the background in terms of the market?

2 **MR. REMO BUCCI:** It would have been the primary project,
3 because it was in Canada. It was light rail, very similar tunneling, the train control
4 system. The other project that was, again, market ready was the Denver Eagle, but I
5 would say the Canada Line was the primary one, and it also had been funded by the
6 federal government.

7 **MR. PETER WARDLE:** All right. And I'm not going to, because of
8 time restrictions, I'm not going to take you through this, but there were -- in the
9 2011/2012 period, there were a number of other large transit infrastructure projects
10 being procured through P3 models internationally, is that fair?

11 **MR. REMO BUCCI:** Yes.

12 **MR. PETER WARDLE:** And that would include in Canada
13 Edmonton Valley, Eglinton Crosstown and Waterloo, is that correct?

14 **MR. REMO BUCCI:** Or in the process of planning to be procured
15 using some form of design build finance operate maintain, et cetera, yes.

16 **MR. PETER WARDLE:** And internationally, and again, I'm not
17 going to spend time on it, but Denver Eagle Purple Line in the United States?

18 **MR. REMO BUCCI:** Correct. Purple Line was a little bit more in
19 planning. Denver Eagle had reached financial close prior to the release of the RFP.
20 Correct.

21 **MR. PETER WARDLE:** Gold Coast and Sydney in Australia?

22 **MR. REMO BUCCI:** Yes, I think those were under construction.

23 **MR. PETER WARDLE:** And Woolwich Arsenal in the U.K.; is that
24 correct?

25 **MR. REMO BUCCI:** Yes.

26 **MR. PETER WARDLE:** Okay. And I just want to take you very
27 quickly to your project delivery report in February 2011, and for this, I'm going to have to
28 turn to our document number for this document, COW 0543596.

1 **COMMISSIONER HOURIGAN:** All right, just repeat it a little
2 slower, please?

3 **MR. PETER WARDLE:** So, COW 0543596, Mr. Commissioner.

4 **COMMISSIONER HOURIGAN:** Thank you.

5 **MR. PETER WARDLE:** This is the same document that my friend
6 took you to a few minutes ago. It's just a different document number. And again, you're
7 familiar with this, Mr. Bucci?

8 **MR. REMO BUCCI:** I am.

9 **MR. PETER WARDLE:** I just wanted to take you to the table at
10 page (xi). It's Table 9. I believe that's the table. And under -- and you'll see the City
11 objectives, and then across the top, the four models that are short listed, and I just want
12 to go to service quality, and under DBFM, do I have this right that the second bullet
13 says, "performance-based payment mechanism under this option will incentivize
14 meeting maintenance service quality standards"?

15 **MR. REMO BUCCI:** Yes.

16 **MR. PETER WARDLE:** Okay. And was that a key element of the
17 DBFM model, that there would be a payment mechanism that would give some comfort
18 to the City that the maintainer would meet service quality standards during the
19 maintenance period?

20 **MR. REMO BUCCI:** Correct, to anchor the train service plans that
21 were purchased, and with the customer and the customer experience being critical in
22 the conservation of all of that.

23 **MR. PETER WARDLE:** Okay. And then if we scroll down through
24 the list to performance security, which is the last item, you'll see under DBFM, it has
25 "performance is secured during the operations phase by very liquid forms of security."
26 And I take it what that meant was that if there was a form of -- if there was a default
27 during the operations phase, the long-term lender would have certain options available
28 to it, correct?

1 **MR. REMO BUCCI:** The long-term lender and the sponsor, both, in
2 the sense that, you know, payments that are due are the most liquid form of security, in
3 simple terms.

4 **MR. PETER WARDLE:** And so -- and I'm not going to turn it up,
5 but when you used the expression in your subsequent letter, and this is Deloitte
6 0109898, your letter of June 29, 2011 that penalties can be applied in the case of poor
7 performance, I take it you were referring in part to the payment mechanism, correct?

8 **MR. REMO BUCCI:** Incentive mechanism, and I stated yes.

9 **MR. PETER WARDLE:** Thank you. I just wanted to touch briefly
10 on the chronology of events, if I could. So, I just want to make sure I have this right. In
11 May of -- I just want to pull up the right report here. In May of 2011 -- we can take this
12 document down. In May of 2011, Ms. Schepers provides her first report to Council,
13 which my friend took you to. Do you recall being asked some questions about that?

14 **MR. REMO BUCCI:** Yes.

15 **MR. PETER WARDLE:** And at the time of that report, there was no
16 -- there had been no final conclusion reached with respect to the financing component,
17 correct?

18 **MR. REMO BUCCI:** Or the DBM versus the DBFM, correct.

19 **MR. PETER WARDLE:** Right. So, those issues are still up for
20 grabs at that time when she goes to Council in May of 2011, correct?

21 **MR. REMO BUCCI:** Correct. Correct.

22 **MR. PETER WARDLE:** But it's fair, isn't it, that -- and I'm not going
23 to take you to the report, but it's fair that she indicates in her report that -- and I'm
24 quoting from page 17 of her report, that the decision to recommend private finance to
25 Council and the exact size of the payment holdback will be made in consultation with
26 the City's financial advisors, legal advisors and Infrastructure Ontario. So, it would have
27 been clear to Council in May of 2011 that there was going to be another
28 recommendation with respect to the financing component; is that not fair?

1 **MR. REMO BUCCI:** Correct, and to the market importantly as well,
2 because the City was signaling that the procurement was going to begin. So,
3 communication is very important. Yes.

4 **MR. PETER WARDLE:** Okay. And then when the procurement
5 goes out -- so the first part of the procurement is the RFQ at the end of June, and again,
6 I'm not going to take you to the document because it's fairly extensive, but it's clear, as I
7 read it, and I'm just quoting from page 1 of the procurement document itself, the City
8 expects that up to \$400 million in long-term financing may be required to achieve the
9 desired level of risk transfer through the term of the maintenance contract.

10 So, the RFQ documents sent out at the end of June, financing was
11 not part of it, but there was a clear message sent to the proponents that something
12 along those lines was coming, correct?

13 **MR. REMO BUCCI:** Correct. And if you look at the financial
14 submission requirements and evaluation criteria, the condition, the track record, the
15 capacity to provide that financing, and the reason why the 400 was there was to signal
16 that's basically the criteria that was being used.

17 **MR. PETER WARDLE:** And then Ms. Schepers goes back to
18 Council, really just two weeks later, and gets the authority from Council with respect to
19 the entire DBFM form of model, correct?

20 **MR. REMO BUCCI:** Correct.

21 **MR. PETER WARDLE:** Let me just ask some questions about the
22 affordability cap. We've heard that in 2009, the construction budget was initially \$1.8
23 billion, and that it was not inflation adjusted, and that there were certain costs not
24 included in it. Are you familiar with the budget that was in the environmental
25 assessment document?

26 **MR. REMO BUCCI:** Yes.

27 **MR. PETER WARDLE:** Okay. And you've already testified about
28 the fact that government funding was based on a fixed amount, and as the budget for

1 the project changed, those amounts did not change ---

2 **MR. REMO BUCCI:** Correct.

3 **MR. PETER WARDLE:** --- if I can put it that way?

4 **MR. REMO BUCCI:** Correct.

5 **MR. PETER WARDLE:** And between 2009 and 2011, the budget
6 increased, and it ultimately is \$2.1 billion, and in your formal interview, you described
7 producing a budget as an iterative process, is that fair?

8 **MR. REMO BUCCI:** Correct.

9 **MR. PETER WARDLE:** And did Deloitte review the City budget as
10 it was being developed between 2009 and 2011?

11 **MR. REMO BUCCI:** Yes, for the purposes of understanding how
12 the budget was formed. Since the budget was being put into our financial model that
13 Deloitte was creating, we wanted to ensure that any assumptions we were making
14 weren't duplicative. We did not provide a peer review on the sufficiency of it, but we
15 wanted to make sure it was appropriate for our needs.

16 **MR. PETER WARDLE:** And was Deloitte comfortable that the
17 budget, the 2011 budget, appeared realistic?

18 **MR. REMO BUCCI:** I would say that the City followed identical
19 processes that we've seen on the majority of our projects in the sense that it reflected
20 where the design was advanced. At that point, I talked about the reference concept
21 design earlier. It had been reviewed, as I understand, by a quantity surveyor. So, as
22 far as we were concerned, the City followed best practices.

23 **MR. PETER WARDLE:** Is it common, in your experience, for the
24 owner in a P3 procurement to have budgetary restrictions?

25 **MR. REMO BUCCI:** There is not a project that we've been
26 involved with at Deloitte's, federal, provincial, municipal, where the budget, if not the
27 most important thing, is always an important factor, budget and schedule.

28 **MR. PETER WARDLE:** And we know on this procurement,

1 ultimately, there was an affordability cap, correct, in the RFP?

2 **MR. REMO BUCCI:** Correct.

3 **MR. PETER WARDLE:** Have you worked on other rail projects
4 where there has been an affordability cap?

5 **MR. REMO BUCCI:** Yes. The majority of them have affordability
6 caps.

7 **MR. PETER WARDLE:** And the financial scoring, and we don't
8 have time to get into the gearing mechanism, which I gather is quite complicated, but
9 the gearing mechanism, in your view, was that beneficial to proponents, and if so, can
10 you explain why?

11 **MR. REMO BUCCI:** The proponents, in my opinion, based on
12 feedback we received through market soundings and projects we've done across
13 Canada as context, would like to see evaluations done on the least amount of
14 subjectivity as possible. So, for example, if you win because of price, that's clear. So,
15 the AFP -- the gearing or the ratio in which you -- how you calculate or convert net
16 present value to points is done -- was done with input from the industry, with support
17 from the industry, to ensure for the most part that, ultimately, the winner is declared
18 primarily on price, so that you're not relying on the subjectivity of -- it's roughly 50/50 --
19 of the 50 points that's on the technical side.

20 **MR. PETER WARDLE:** And in this procurement, do you recall any
21 pushback from the proponents during the commercially confidential meetings about the
22 affordability cap?

23 **MR. REMO BUCCI:** I'll just say this, leading up to the release of
24 the RFQ, we had done market soundings on this topic, and the input from the industry
25 was make your budget available through the affordability cap, because the benefit of the
26 model is such that any issues may be resolved during the open period. During the open
27 period, the times that the proposals were being prepared by the proponents, that's
28 exactly what happened. When you say there's concerns, there was effectively ideas

1 from both sides in terms of how to ensure that the project -- that the bids would
2 ultimately become -- could become affordable, and that's the true strength of the model,
3 because you've got control of the design, build and the maintenance functions. So, you
4 get the benefit of three teams looking at it, having done their own designs and
5 constructability assessments saying, you know what? If you think about changing this
6 requirement here, you're going to get better value. So, yes.

7 **MR. PETER WARDLE:** And just very quickly on the geotechnical
8 risk ladder, you've already testified that all of the proponents chose the highest rung on
9 the geotechnical risk ladder. Was there any complaint that you can recall during the
10 procurement process about the geotechnical risk ladder?

11 **MR. REMO BUCCI:** No, I would characterize it as the open period
12 was rightfully extended to deal with, let's just say, the geotechnical issues, or the
13 broader issues that related to the project. I think at the time, once the final addendum
14 was issued and the, effectively, now submit your bids, I would say collectively "we", the
15 City, the advisory team, et cetera, were confident that the project requirements had
16 been set, that all three bid teams were now in a place where they could provide an
17 affordable bid.

18 **MR. PETER WARDLE:** Did any of the Proponents, to your
19 recollection, during the in-market period, ask for a vetting-in period with respect to the
20 payment methods?

21 **MR. REMO BUCCI:** No, not that I recall.

22 **MR. PETER WARDLE:** And Mr. Bucci, before we leave the
23 procurement period, do you have any concerns today that the budget for this project
24 was not adequate?

25 **MR. REMO BUCCI:** No, the budget -- the process that the City
26 went through to set the budget, as I said previously, followed best practices. And the --
27 and the iterative or the evolution of the budget simply reflected the fact that as the City
28 was working through the procurement and got better information, the budget was

1 updated up to the time that the RFP was released, and that's the point in time at which
2 the affordability cap was defined.

3 **MR. PETER WARDLE:** I want to just ask some questions about
4 the milestone approach. And I'm not going to take you to the document, but I
5 understand that you provided a presentation to the Executive Steering Committee in
6 2011 about milestones?

7 **MR. REMO BUCCI:** Yes.

8 **MR. PETER WARDLE:** And is it fair to say that you provided an
9 analysis of milestones against the traditional progress payment approach?

10 **MR. REMO BUCCI:** Yes.

11 **MR. PETER WARDLE:** And what was your ultimate
12 recommendation to the City?

13 **MR. REMO BUCCI:** The recommendation was on the number of
14 milestone -- so what we were looking to do through that analysis was to ensure that the
15 number of milestones and the frequency was such that when the project got to revenue
16 service or substantial completion, that there was a sufficient amount of a payment of
17 substantial completing -- completion payment, if you will, or revenue service availability
18 payment, if you will, that did two things; that was large enough that it create the
19 incentive to meet the schedule and the budget, but at the same time, didn't cause any
20 more -- it didn't cause any more of an impact with respect to affordability.

21 So we were trying to find that optimal level of private financing
22 based on the construction period payments.

23 **MR. PETER WARDLE:** And is it right that Proponents were given
24 the ability during the procurement to propose their own milestones?

25 **MR. REMO BUCCI:** Correct. So we did the mathematical
26 frequency, we worked with the owners, engineers' team initially to come up with an
27 initial list based on the schedule that came from the reference concept design, and then
28 Proponents provided feedback, and they were given a menu from which they could

1 select the number from, based on the rules that we developed in the RFP.

2 **MR. PETER WARDLE:** I want to turn quickly to the debt swap.

3 And I'd ask that document COW052572 be turned up?

4 **(SHORT PAUSE)**

5 **MR. PETER WARDLE:** Thank you.

6 Mr. Bucci, are you familiar with this document?

7 **MR. REMO BUCCI:** I am, yes.

8 **MR. PETER WARDLE:** And I just want to first confirm that the --
9 the issue with respect to the lenders in connection with Stage 2 was in relation to the
10 long-term lenders; it had nothing to do with the short-term lenders; correct?

11 **MR. REMO BUCCI:** Correct.

12 **MR. PETER WARDLE:** And they continued to be involved and
13 provide independent oversight to the project through to RSA when they got paid out;
14 correct?

15 **MR. REMO BUCCI:** Correct.

16 **MR. PETER WARDLE:** And as I understand it from this document,
17 there were a number of options considered by the City's advisors, and I'm going to take
18 you through them very quickly. One was putting up more equity to get lender consent?

19 **MR. REMO BUCCI:** Yes.

20 **MR. PETER WARDLE:** One was having some kind of reserve
21 fund; correct?

22 **MR. REMO BUCCI:** Correct. Correct.

23 **MR. PETER WARDLE:** One was trying to ring-fence the risk for
24 the long-term lenders?

25 **MR. REMO BUCCI:** Correct.

26 **MR. PETER WARDLE:** And one was actually paying out the
27 lenders, which I'm going to suggest would involve terminating the project agreement in
28 its entirety and making what was called a make-whole payment; correct?

1 **MR. REMO BUCCI:** Correct.

2 **MR. PETER WARDLE:** Okay. And is it fair to say that none of
3 these options was palatable to the City for various commercial reasons?

4 **MR. REMO BUCCI:** Correct.

5 **MR. PETER WARDLE:** Okay. And the debt swap, if we go to
6 page 5 of this document, if we go to the last bullet, is it fair to say that, as set out here:

7 "The long-term lender debt release was determined to
8 be preferred as it was relatively simple to implement,
9 did not have a cost impact to the City, and would enable
10 the City to meet the target MOU completion date to
11 move forward with Stage 2"? (As read)

12 **MR. REMO BUCCI:** Correct.

13 **MR. PETER WARDLE:** And if we go to Slide 8, you see it says in
14 the middle of that page, one of the benefits in the bullets is:

15 "Maintain the presence of the Stage 1 long-term debt in
16 the project agreement, which could enhance and inform
17 an attractive package for infrastructure investors in the
18 secondary markets, once the Stage 2 project moves
19 into operation." (As read)

20 Do you see that?

21 **MR. REMO BUCCI:** Yes.

22 **MR. PETER WARDLE:** And was part of the thinking here, from
23 your involvement, that the long-term debt could be sold to a third party?

24 **MR. REMO BUCCI:** Yes, that's what I meant by temporary, based
25 on where interest rates were at the time. It was something that could be done
26 economical -- economically. At the time that the MOU was confirmed, the project was
27 on track for completion. So with all that in consideration, the thought was keep the --
28 keep the structure in place.

1 And then once you get to substantial completion or revenue service
2 and the project gets into operations, the City still has the option to go back out and
3 reissue that financing and step out of the lender shoes and have someone come in at
4 that point in time, and the City would have more time to deal with the integration of
5 Stage 2 at that point as well.

6 **MR. PETER WARDLE:** Were there discussions with the Canadian
7 Infrastructure Bank in 2018 about transferring the long-term debt to that organization?

8 **MR. REMO BUCCI:** Yes.

9 **MR. PETER WARDLE:** And was that transaction completed?

10 **MR. REMO BUCCI:** The -- it was not because of funding issues
11 with respect to what's called the eligibility rules with the federal government, stacking
12 provisions of they are -- as they are.

13 But in terms of the concept with the Canadian Infrastructure Bank, it
14 was seen as something that was highly viable. And I should also say that at the time
15 the Memorandum of Understanding was done, the Canadian Infrastructure Bank wasn't
16 in place. So the fact that they were in place gave the opportunity to potentially refinance
17 the entire system with the Canadian Infrastructure Bank taking what would be a
18 subordinate position to enable that long-term financing to come back into place.

19 **MR. PETER WARDLE:** And had that transaction been completed,
20 Mr. Bucci, would that have returned the parties to the initial position contemplated by
21 the DBFM model?

22 **MR. REMO BUCCI:** Correct, for Stage 1 and 2.

23 **MR. PETER WARDLE:** And you've -- you're familiar with some of
24 the problems that have plagued the project since its opening in 2019; correct?

25 **MR. REMO BUCCI:** Yes.

26 **MR. PETER WARDLE:** Would you agree that none of the
27 problems that the -- with the project since 2019 are related in any way to the debt
28 swap?

1 **MR. REMO BUCCI:** Correct.

2 **MR. PETER WARDLE:** Thank you. Those are all my questions.

3 **COMMISSIONER HOURIGAN:** All right. Thank you, counsel.

4 Next is RTG.

5 **MR. CHOWDHURY:** Good afternoon, Mr. Commissioner.

6 **--- CROSS-EXAMINATION BY MR. MANU CHOWDHURY:**

7 **MR. MANU CHOWDHURY:** Mr. Bucci, good afternoon. In view of
8 Ms. McLellan's excellent questions, I don't have a lot to ask you, Mr. Bucci, but I just
9 wanted to follow up on one line of questions. And, in fact, it's great that we have the
10 document up. I just wanted to ask you a few things about this document.

11 **MR. REMO BUCCI:** Yes, go ahead.

12 **MR. MANU CHOWDHURY:** Mr. Bucci, do you remember Ms.
13 McLellan asked you that as part of the debt swap discussion you were having with her
14 that one of the benefits of the City stepping into the shoes of the third-party lenders
15 would be access to lender reports; do you remember that discussion?

16 **MR. REMO BUCCI:** Yes.

17 **MR. MANU CHOWDHURY:** Okay. And if we could go to Slide 9,
18 please, if we could go to slide 9, please, Mr. Operator, on this document.

19 Perfect, thank you. If you look at that diligence bullet, in this slide,
20 as you know, the City is setting out the number of benefits it can achieve by stepping
21 into the shoes of third-party lenders. And the diligence bullet reads as follows: "From
22 RTG's perspective the borrower/lender arrangement still prevails with the city taking
23 over the role of the lender." And here's the key part, Mr. Bucci: "While from the City's
24 perspective it receives additional reports for a stage 2 project, including lender reports,
25 lender's technical advisor report, and regular financial reporting."

26 So my question to you, Mr. Bucci, is do you know what would be in
27 the lender's reports and the lender's technical advisor reports?

28 **MR. REMO BUCCI:** At the time that this was written, no.

1 **MR. MANU CHOWDHURY:** As a general matter, do you have any
2 knowledge about what would be typically in these types of reports?

3 **MR. REMO BUCCI:** Yes, yes, correct, I understand your question,
4 sorry.

5 **MR. MANU CHOWDHURY:** No, no, please go ahead. Go ahead
6 and answer. So can you tell me in general terms, like what would be typically in these
7 reports?

8 **MR. REMO BUCCI:** My understanding is, the lender technical
9 advisor's primary focus is the payment certification, invoice certification, because the
10 monies are being drawn down from the credit facility so that we need to ensure and
11 make the lenders comfortable, that the proceeds from the credit facility are being paid –
12 are being put to the project and for the advancement of the project.

13 And then, secondly, they would provide a high level of assessment
14 of where the project's at based on information that they get from RTG.

15 **MR. MANU CHOWDHURY:** So it's fair to say then. Mr. Bucci, if I
16 understand your evidence, particularly on the Advisor Report, that there will be an
17 element of due-diligence that's provided to the lender on the project?

18 **MR. REMO BUCCI:** So in my view, where we were at this point in
19 time, based on my knowledge and understanding, that due diligence is not the same as
20 compared to what the City receives from its oversight. It's an order of magnitude.

21 **MR. MANU CHOWDHURY:** I understand your point, but I
22 remember you told Ms. McGrann in you interview, that one of the advantages of having
23 third-party lenders is that there they are an independent third party eyes, as you said it, I
24 believe.

25 **MR. REMO BUCCI:** Correct.

26 **MR. MANU CHOWDHURY:** Do you remember that discussion?

27 **MR. REMO BUCCI:** Yeah.

28 **MR. MANU CHOWDHURY:** And part of that third party eye is that

1 they provide some element of due diligence to the lenders; is that fair to say?

2 **MR. REMO BUCCI:** Yeah, and I think – I don't know if we're trying
3 to get to what that due diligence is; if you're asking my opinion and knowledge, it's
4 primarily on payment certification.

5 **MR. MANU CHOWDHURY:** Primarily on payment certification.

6 **MR. REMO BUCCI:** Invoice certification for the credit facility.

7 **MR. MANU CHOWDHURY:** Okay, Mr. Bucci, that's fair, and we
8 appreciate the clarification.

9 So in your assessment then, the lender's report itself, and the
10 technical advisor report, unless the lenders decided to share these with the City, the
11 City presumably would not have these documents; is that fair to say?

12 **MR. REMO BUCCI:** I don't know. I mean there's a lender's draft
13 agreement in the project agreement; all of the elements of the project are the property
14 of the City so I don't know if that's been tried – that's more of a legal question, so I don't
15 know if I can answer it; I can say generally I don't know why the City wouldn't have a
16 right to it; it's a part of the project.

17 **MR. MANU CHOWDHURY:** Okay, Mr. Bucci.

18 **MR. REMO BUCCI:** And through the avenue – sorry to interrupt.
19 Through the avenue of the project agreement.

20 **MR. MANU CHOWDHURY:** Okay. Well, that's the only point I
21 wanted to get a little bit more clarity from you, Mr. Bucci. Thank you very much. Those
22 are all my questions, Mr. Commissioner.

23 **COMMISSIONER HOURIGAN:** All right. Thank you, Alstom is
24 next.

25 **MS. JACKIE VAN LEWEN:** Hi Jackie Van Lewen here, counsel
26 for Alstom; we have no questions for the witness.

27 **COMMISSIONER HOURIGAN:** All right, thank you. Infrastructure
28 Ontario?

1 **--- CROSS-EXAMINATION BY MS. MORGAN WATKINS:**

2 **MS. MORGAN WATKINS:** Good morning, Commissioner, Good
3 morning, Mr. Bucci.

4 **MR. REMO BUCCI:** Good morning.

5 **MS. MORGAN WATKINS:** Morgan Watkins, W-A-T-K-I-N-S and I
6 act for Infrastructure Ontario.

7 Mr. Bucci, I just have a limited amount of time this morning, so I just
8 wanted to cover a few discrete points and clarification of your evidence that you gave
9 this morning speaking with Commission counsel.

10 The first point is, I thought I heard you say in your earlier testimony
11 to counsel, Ms. McLellan that this is the first project in Ontario that followed the DBFM
12 model. That's not the case, as you may know, so I just want to give you an opportunity
13 to clarify that evidence.

14 **MR. REMO BUCCI:** Thank you, for LRT's is what I should say.

15 **MS. MORGAN WATKINS:** Thank you.

16 And with Mr. Wardle you discussed milestones in the RFP just now;
17 you said – so I'm just going to actually ask the Commission to please pull up document
18 IFO70, which is the RFP main body.

19 Oh, my apologies, it's Schedule 3, it's RFP, Schedule 3. Yeah,
20 that's right. And if you could just go to page 16 of 38 of that document. And just to the
21 bottom of this page, s. 2.7, milestone payment during performance of design and
22 construction work. Do you see that, Mr. Bucci?

23 **MR. REMO BUCCI:** I do.

24 **MS. MORGAN WATKINS:** Okay. And just going down the page,
25 to page 17 at the top, a little bit further down, thank you. And so in the second main
26 paragraph of this section, you can see the sentence that starts with "proponents are
27 also encouraged to propose".

28 **MR. REMO BUCCI:** Yes.

1 **MS. MORGAN WATKINS:** So I just want to clarify, you said with
2 Mr. Wardle, that the proponents could select from a menu of options that the City
3 provided after consultation with the proponents during the RFP phase and the design
4 and CCM meetings; is that right?

5 **MR. REMO BUCCI:** Correct. In fact the starting point when this
6 RFP was released, that increased – because each of the proponents had a slightly
7 different schedule so they were able to bring forward milestones that were suitable for
8 their projects as long as it meant the base rules. It didn't you know, size the number et
9 cetera.

10 **MS. MORGAN WATKINS:** Right, okay. So not only could they
11 select from the menu, but they could also – they were also encouraged to propose
12 additional eligible milestone events as it says right here?

13 **MR. REMO BUCCI:** Correct.

14 **MS. MORGAN WATKINS:** Okay. Thank you.

15 And just moving to your role which you discussed with Ms.
16 McLellan this morning, your role in OLRT1, I understand that your mandate – Deloitte's
17 mandate for Stage 1 ended around financial close as you said this morning in 2013?

18 **MR. REMO BUCCI:** Right.

19 **MS. MORGAN WATKINS:** And as you said earlier, there was a bit
20 of a hiatus until Deloitte was re-engaged as financial advisor for the procurement of
21 Stage 2?

22 **MR. REMO BUCCI:** Correct.

23 **MS. MORGAN WATKINS:** And in that role, as you described it, as
24 financial and transaction advisor, it initially started with the analysis regarding the
25 project delivery options, the procurement structure and I think you said it morphed into
26 advice regarding the RFQ for the procurement, to the development of a PA.

27 **MR. REMO BUCCI:** Correct.

28 **MS. MORGAN WATKINS:** And based on that role description, I

1 take it that you do not have any involvement with the construction of Stage 1, so, for
2 example, just to be clear, you were not advising on the administration of the contract
3 between the City and RTG; correct?

4 **MR. REMO BUCCI:** Up until 2017, I would say.

5 **MS. MORGAN WATKINS:** Okay. For Stage 1, the construction of
6 Stage 1?

7 **MR. REMO BUCCI:** Yeah, but for Stage 1, no involvement on the
8 administration of construction contract up until about 2017.

9 **MS. MORGAN WATKINS:** And you had no involvement with
10 oversight of the technical aspects of the project?

11 **MR. REMO BUCCI:** No, none, no. No, not at all.

12 **MS. MORGAN WATKINS:** And you weren't there on the ground
13 during construction or overseeing –

14 **MR. REMO BUCCI:** Was not, correct, it was purely in looking at –
15 specifically the impacts of once the delay was known, the cost to the City. It was more
16 commercial directed to the City.

17 **MS. MORGAN WATKINS:** Okay. Thank you, Mr. Bucci, those
18 are all my questions for you.

19 **COMMISSIONER HOURIGAN:** All right. Thank you for that,
20 counsel. Next is STV.

21 **MS. EILEEN CHURCH CARSON:** Good morning, my name is
22 Eileen Church Carson for STV Incorporated. We have no questions for this witness.

23 **COMMISSIONER HOURIGAN:** All right, thank you. Next is the
24 Province of Ontario.

25 **MR. JEFFREY CLAYDON:** Good morning, Jeffrey Claydon for the
26 Province of Ontario, C-L-A-Y-D-O-N. We do not have any questions for this witness.

27 **COMMISSIONER HOURIGAN:** All right. Thank you. So next is
28 the witness's counsel, so – sir, this will be your client for Deloitte next; all right?

1 **COMMISSIONER HOURIGAN:** Sir, this will be your counsel for
2 Deloitte next, all right? He's right beside you. There you are, okay.

3 **MR. JAMIE YOON:** Mr. Commissioner, we have no questions.

4 **COMMISSIONER HOURIGAN:** Very good. Thanks.

5 Next is Commission re-examination?

6 **MS. LIZ McLELLAN:** We don't -- we do not have any further
7 questions. Thank you, Mr. Commissioner.

8 **COMMISSIONER HOURIGAN:** All right.

9 You're excused, sir. Thank you for your time and for participating in
10 the process, it's much appreciated.

11 We're going to take the break until the next witness is available at 2
12 o'clock. Thank you.

13 **MR. REMO BUCCI:** Thank you.

14 **THE REGISTRAR:** Order, all rise.

15 The Commission is adjourned until 2:00 p.m.

16 --- Upon breaking at 11:43 a.m.

17 --- Upon resuming at 1:59 p.m.

18 **THE REGISTRAR:** Order, all rise.

19 The Commission has resumed.

20 **COMMISSIONER HOURIGAN:** All right. We're ready for the
21 afternoon witness. It's Mr. Michael Burns of Thales.

22 Mr. Burns, are you there? Mr. Burns?

23 **(TECHNICAL ISSUES)**

24 **COMMISSIONER HOURIGAN:** Is counsel there for Thales, the
25 Fasken firm? I see counsel there.

26 **MS. MARIA BRAKER:** Mr. Commissioner, can you hear me?

27 **COMMISSIONER HOURIGAN:** Yes.

28 **MS. MARIA BRAKER:** I am Maria Braker, Fasken for Thales.

1 We're working on the technical issue.

2 **COMMISSIONER HOURIGAN:** Okay. We'll stand by. Oh, I see
3 him there, I believe.

4 **MR. MICHAEL BURNS:** I think -- can you hear us?

5 **COMMISSIONER HOURIGAN:** Yeah, we can hear you. Is that
6 Mr. Burns?

7 **MR. MICHAEL BURNS:** Yes, this is Mr. Burns.

8 **COMMISSIONER HOURIGAN:** All right. Very good. I see Ms.
9 McAleer, Ms. Braker, Mr. Burns. Okay.

10 Mr. Burns, you're going to have an opportunity to either swear an
11 oath or an affirmation to tell the truth, which would you prefer?

12 **MR. MICHAEL BURNS:** Affirmation.

13 **COMMISSIONER HOURIGAN:** All right, hold on.

14 **--- MR. MICHAEL BURNS, Affirmed:**

15 **THE REGISTRAR:** The witness has been sworn in.

16 **COMMISSIONER HOURIGAN:** All right. Thank you.

17 So you're going to have some questions from a number of counsel.

18 The first will be from Commission counsel, Mr. Harland.

19 Okay, let's proceed.

20 **MR. FRASER HARLAND:** Thank you, Mr. Commissioner.

21 **--- EXAMINATION IN-CHIEF BY MR. FRASER HARLAND:**

22 **MR. FRASER HARLAND:** Mr. Burns, my name is Fraser Harland,
23 and I am Commission counsel. Can you hear me clearly?

24 **MR. MICHAEL BURNS:** Yes, I can. Thank you.

25 **MR. FRASER HARLAND:** And as you know, I'm going to be
26 asking you a number of questions this afternoon. If at any point you don't understand
27 the question, please just let me know and I can repeat it or rephrase it for you, okay?

28 **MR. MICHAEL BURNS:** Okay.

1 **MR. FRASER HARLAND:** And I have about two hours with you. I
2 don't know if I'll need all of that time, but if you need a break before then, you can just
3 let me know that as well, okay?

4 **MR. MICHAEL BURNS:** Okay.

5 **MR. FRASER HARLAND:** As a preliminary point, Mr. Burns, you
6 recall being previously interviewed by Commission counsel Christine Mainville and
7 myself on March 31st, 2022, is that right?

8 **MR. MICHAEL BURNS:** That is correct.

9 **MR. FRASER HARLAND:** Okay. And so you understand it, if I'm
10 referring to your Commission interview of your previous interview, it's that interview that
11 I'm referring to, okay?

12 **MR. MICHAEL BURNS:** Yeah, yes.

13 **MR. FRASER HARLAND:** So I'd like to begin by asking you some
14 questions about your professional background, particularly as it relates to your
15 involvement with Stage 1 of Ottawa's LRT project. Your role in the project has been as
16 the Project Manager for Thales, is that right?

17 **MR. MICHAEL BURNS:** That is correct.

18 **MR. FRASER HARLAND:** Okay. And you began that role in April
19 of 2013?

20 **MR. MICHAEL BURNS:** Yes.

21 **MR. FRASER HARLAND:** So this was just after the contract
22 between Thales and OLRT-C for the signaling system had been executed, is that fair?

23 **MR. MICHAEL BURNS:** That is correct.

24 **MR. FRASER HARLAND:** Okay. And are you still in the role of
25 Project Manager today?

26 **MR. MICHAEL BURNS:** I am, as our work is not complete.

27 **MR. FRASER HARLAND:** Okay. Mr. Burns, I understand that you
28 are not an engineer, is that right?

1 **MR. MICHAEL BURNS:** That is correct.

2 **MR. FRASER HARLAND:** Okay. So could you briefly explain your
3 educational and professional background which qualified you to serve as Thales' Project
4 Manager on this project, please?

5 **MR. MICHAEL BURNS:** My education is a B.A., economics major.
6 And my experience in project and portfolio management extended back many years
7 with Raytheon Canada, managing similar complex projects in the aerospace and
8 defence industries.

9 **MR. FRASER HARLAND:** Okay, thank you. And was this your
10 first rail project, Mr. Burns?

11 **MR. MICHAEL BURNS:** Yes.

12 **MR. FRASER HARLAND:** And have you been working on other
13 projects for Thales during the time since April 2013 or have you been focused solely on
14 this project in Ottawa?

15 **MR. MICHAEL BURNS:** I've been focused solely on the Ottawa
16 project. I provided some support for other -- other activities, but my primary and sole
17 focus was the project management of this Ottawa project.

18 **MR. FRASER HARLAND:** And could you briefly describe the role
19 of Project Manager for Thales, obviously, on this project?

20 **MR. MICHAEL BURNS:** As the Project Manager, I am the
21 interface to the customer externally, and internally I organize the activities and the
22 project team to execute those activities and deliverables on the project.

23 **MR. FRASER HARLAND:** Okay. So would it be fair to say that
24 you were doing on-the-ground supervision of the work for Thales?

25 **MR. MICHAEL BURNS:** Could you define what you mean by, "On
26 the ground"?

27 **MR. FRASER HARLAND:** Well, I guess I can put it this way, were
28 you based in Ottawa for the project?

1 **MR. MICHAEL BURNS:** No, I was not based. I spent a lot of time
2 in Ottawa, but I was based in Toronto.

3 **MR. FRASER HARLAND:** Okay. And part of the project
4 managing role also involved contract management, is that right?

5 **MR. MICHAEL BURNS:** There's aspects of it that I adopted.
6 There was a contracts management position within the project team.

7 **MR. FRASER HARLAND:** Okay. And that was -- and that role
8 was fulfilled by someone else?

9 **MR. MICHAEL BURNS:** Correct.

10 **MR. FRASER HARLAND:** Okay. But -- and we may come to
11 some of it, but I -- I take it that you would have written at least some correspondence as
12 it related to the contract and scheduling of the contract, and Thales' interpretation of
13 various obligations and that kind of thing, is that right?

14 **MR. MICHAEL BURNS:** Correct. If I can expand the -- I was
15 responsible as the communication's conduit to my counterpart with OLRTC. Depending
16 on the content of that communication I would acquire technical inputs or safety or
17 commercial or other functions within the project team, but all correspondence was
18 issued on my signature.

19 **MR. FRASER HARLAND:** And a moment ago you said that
20 Thales' work on the project is not complete; is that because Thales is involved in Stage
21 2; what did you mean when you said that, sir?

22 **MR. MICHAEL BURNS:** No, I'm talking only about Stage 1.
23 Stage 1 included commissioning of the Belfast yard. There was a decision taken in, I
24 believe, 2017 to separate mainline revenue service from the yard. So the yard was
25 separated or a commissioning of the yard would be a separate activity. And that still
26 has not been completed.

27 **MR. FRASER HARLAND:** Okay, understood. That's helpful,
28 thank you. So we discussed that Thales entered into a contract to provide the signalling

1 system for the project; that's correct, right?

2 **MR. MICHAEL BURNS:** Correct.

3 **MR. FRASER HARLAND:** And that contract was with OLRTC?

4 **MR. MICHAEL BURNS:** Yes.

5 **MR. FRASER HARLAND:** So at a high level could you explain the
6 Thales' signalling system that was used and continues to be used for this project?

7 **MR. MICHAEL BURNS:** Could you rephrase what you're
8 expecting in my answer?

9 **MR. FRASER HARLAND:** I'm just wanting to give the public a
10 brief overview of what a signalling system is; what does it do?

11 **MR. MICHAEL BURNS:** Okay, the CBTC system, we have
12 different elements; it's a communication system along the entire guideway and we also
13 have systems, computer systems on the trains that control the breaking propulsion of
14 the commands to the train on how to perform. On the guideway itself, there's a number
15 of sensors that aid in the tracking and detection of vehicles; and the third element is
16 within the control centre, our systems set-up that display on a "line-over" view of the
17 entire guideway, the movement of vehicles.

18 **MR. FRASER HARLAND:** Okay. And just so we have our
19 acronyms straight for the afternoon, when you refer to CBTC, that's a "Communications-
20 based Train Control System"; is that right?

21 **MR. MICHAEL BURNS:** That is correct.

22 **MR. FRASER HARLAND:** And part of that system is a VOBC, or
23 a "Vehicle On Board Controller"; correct?

24 **MR. MICHAEL BURNS:** Yes.

25 **MR. FRASER HARLAND:** And then the onboard part of the
26 system is what would communicate with the wayside equipment that's part of the overall
27 CBTC system; is that right?

28 **MR. MICHAEL BURNS:** Yes, there's a full communication flowing

1 from the on-board computer to the zone controllers and then the zone controllers to the
2 control centre.

3 **MR. FRASER HARLAND:** In your Commission interview you
4 described the signalling system as a standard system that uses hardware from existing
5 systems around the world; does that remain a fair description?

6 **MR. MICHAEL BURNS:** That's a very accurate description.

7 **MR. FRASER HARLAND:** And so we have existing hardware, but
8 I take it that the software of the system would have had to be adapted for the particular
9 requirements of this project?

10 **MR. MICHAEL BURNS:** If you'll allow me maybe a broader
11 description but the software exists for the cell track product, the product that has been
12 deployed elsewhere in the world. It's the adaptation of the software is restricted to the
13 variabilities in the environment so the product can't — it's not designed for Ottawa but
14 the operating systems is the product; the adaptation or the application software for a
15 better description, reflects the Ottawa environment, the guideway, the train's
16 performance, its reactions and the communications that this new train requires.

17 **MR. FRASER HARLAND:** Okay. So could we put it this way,
18 there's a base-level software that's already been established but that has to be adapted
19 for the particular requirements and environment of any particular project; is that fair?

20 **MR. MICHAEL BURNS:** Yes. The particular environment that it
21 will operate in.

22 **MR. FRASER HARLAND:** And were these adaptations similar to
23 other projects or were there more sophisticated or complex adaptations that were
24 required to adapt Thales' CBTC system in this particular project in Ottawa?

25 **MR. MICHAEL BURNS:** No, there was no requirements in our
26 subcontractor PA agreement that was more a higher level or more complex. The
27 largest complexity would be how it interfaced and operated on the new train.

28 **MR. FRASER HARLAND:** Okay. And we'll come to that, but I

1 want to stay on the system for a little bit longer. Is it the case that instead of using two
2 micro-processors as would be done in some other projects, three were used on this
3 particular VOGB, so instead of having what could be called a “two out of two” system,
4 we have a “two out of three” system? Are you familiar with that?

5 **MR. MICHAEL BURNS:** I’m familiar; it’s a type of the same
6 product, a different configuration or architecture but that was not chosen or ultimately
7 wasn’t what was selected and awarded. So it was always the “two out of three”
8 configuration.

9 **MR. FRASER HARLAND:** So that was always what was going to
10 be expected on this project?

11 **MR. MICHAEL BURNS:** Yes.

12 **MR. FRASER HARLAND:** But so I understand, Thales has used
13 both models in different projects; is that right?

14 **MR. MICHAEL BURNS:** Yes.

15 **MR. FRASER HARLAND:** And would one of the benefits of a “two
16 out of three” system be that you could use a single VOGB instead of needing two in
17 each car; is that fair?

18 **MR. MICHAEL BURNS:** It’s my understanding that that’s the
19 differentiation, is that you’ve got the one unit.

20 **MR. FRASER HARLAND:** And had Thales had that kind of model
21 in other projects or was that new specifically for the Ottawa project?

22 **MR. MICHAEL BURNS:** No, this has been deployed in a number
23 of locations; not only deployed, but commissioned before the Ottawa project came to
24 start.

25 **MR. FRASER HARLAND:** So if I were to suggest that a new
26 architecture were used in this project, what would your response be to that?

27 **MR. MICHAEL BURNS:** It is entirely inaccurate.

28 **MR. FRASER HARLAND:** Okay. Could you elaborate on that just

1 a little bit, please?

2 **MR. MICHAEL BURNS:** Well, if the two out of three cell track had
3 been deployed in Hong Kong, Shanghai, Kuala Lumpur, Disneyland, I'd have to say
4 that project has been field-proven and demonstrated. This is just taking that same
5 product and deploying it in a different city.

6 **MR. FRASER HARLAND:** Understood. So I'd like to take you to
7 a document now, and that's COM172. Just a moment while we pull that out, Mr. Burns.

8 **MR. MICHAEL BURNS:** Okay.

9 **MR. FRASER HARLAND:** Sorry, COM172. So 000172.

10 **--- EXHIBIT No. 086:**

11 COM0000172 – Ottawa Light Rail Transit Project Schedule
12 14-2 Part 4 to Project Agreement 12 February 2013

13 **MR. FRASER HARTLAND:** That's it. Thank you.

14 So, Mr. Burns, this is Schedule 15-2, Part 4 to the project
15 agreement.

16 **MR. MICHAEL BURNS:** Yes.

17 **MR. FRASER HARTLAND:** Would you be -- would you be familiar
18 with this document?

19 **MR. MICHAEL BURNS:** Yes, I've reviewed this, this schedule.

20 **MR. FRASER HARTLAND:** Okay. So if we could go to page 5 of
21 the PDF, which is page 2 of the document. And if we could go down to 1.6 at the
22 bottom of the page. And if we could just go down a little bit further, so we have between
23 two -- perfect. So we see the -- the Train Control System here and it says that:

24 "The Train Control System shall be based around a
25 proven CBTC architecture, which allows automatic
26 operation of the LRV under manual supervision in a
27 segregated guideway at 80- to 90-second headways."

28 (As read)

1 So, Mr. Burns, would you say that -- would you agree that this what
2 was provided on the project?

3 **MR. MICHAEL BURNS:** The achievement of the headway, Thales
4 contributes to that -- that performance. The other factors that will determine the actual
5 headway that is achieved is determined by the performance of the train and to a large
6 extent to the guideway itself. But, yes, that -- I believe that is -- I recognize the headway
7 figure.

8 **MR. FRASER HARTLAND:** And the focus on the first line, you
9 know, "A proven CBTC architecture," you would agree that that's what was provided in
10 this project?

11 **MR. MICHAEL BURNS:** Absolutely.

12 **MR. FRASER HARTLAND:** And if we can just briefly discuss
13 automatic operation under manual supervision. So am I right that this train is
14 automatically controlled, but there is a driver supervising that automatic control? Is that
15 what this refers to?

16 **MR. MICHAEL BURNS:** The train, in theory, could be run without
17 a driver, but -- and the choice is that they have a driver on board that monitors, and they
18 have a dead-man switch to maintain -- or so the control centre understands that the
19 driver's still alert, but yes, that's the -- I think that answers your question.

20 **MR. FRASER HARTLAND:** Yes. And one other point on this. So
21 would it be fair to say that 80-- an 80- to a 90-second headway is a relatively short
22 period of time?

23 **MR. MICHAEL BURNS:** I'm not in a position to answer that. I --
24 I'm not ---

25 **MR. FRASER HARTLAND:** Okay.

26 **MR. MICHAEL BURNS:** I'm not aware. I don't ---

27 **MR. FRASER HARTLAND:** And ---

28 **MR. MICHAEL BURNS:** --- believe from my discussions with the

1 technical team that that, in particular, was a challenging headway.

2 **MR. FRASER HARTLAND:** Sure. But would it be fair to say that a
3 headway of that duration is -- makes the need for an automatic train system like the one
4 Thales provides ---

5 **MR. MICHAEL BURNS:** Oh, certainly.

6 **MR. FRASER HARTLAND:** --- more significant?

7 **MR. MICHAEL BURNS:** Yes. Yes.

8 **MR. FRASER HARTLAND:** Okay.

9 **MR. MICHAEL BURNS:** And, you know, the key aspect of that is
10 you're -- you have the -- you have the ability to move more passengers through and
11 because of that headway, yes, you need to have a very -- a safe system to allow the
12 trains to be -- the separation of the trains to be shorter than in a fully manual system.

13 **MR. FRASER HARTLAND:** Okay. We can take that document
14 down. Thank you.

15 And I'd like to turn now to discuss Thales's relationship with Alstom
16 on this project. So you would agree that the vehicle on board control system, the
17 VOBV, required installing Thales's equipment into trains that were designed and built by
18 Alstom; is that correct?

19 **MR. MICHAEL BURNS:** That is correct.

20 **MR. FRASER HARTLAND:** And so is it fair to say that a close
21 working relationship between Thales and Alstom was required on this project?

22 **MR. MICHAEL BURNS:** Yes, that was -- that was understood from
23 the beginning.

24 **MR. FRASER HARTLAND:** And Alstom and Thales had worked
25 on projects together before, is that true?

26 **MR. MICHAEL BURNS:** It's my understanding, yes. I'm not -- I
27 don't know if it was on the same project, but Alstom and Thales, I believe, had worked
28 together on other -- other projects.

1 **MR. FRASER HARTLAND:** Okay, because speaking about this
2 product, I understand that this was actually the first time that a CBT [sic] system was
3 ever integrated with a low floor LRV like on this project, is that -- is that something
4 you're aware of?

5 **MR. MICHAEL BURNS:** I'm not aware of that. I can't -- I can't
6 speak to that.

7 **MR. FRASER HARTLAND:** Okay. If I were to suggest to you that
8 there's a specification in the Thales subcontract that acknowledged -- is that the CBT --
9 CBTC system has never been integrated with a low-floor LRV, do you have -- do you
10 have any reason to question or disagree with that?

11 **MR. MICHAEL BURNS:** Without seeing the document, but -- I
12 would say, no, I have no reason to think that that wasn't a statement.

13 **MR. FRASER HARTLAND:** Fair. So it -- would it be fair to say -- I
14 mean, if we assume that that's true, would it be fair to say that the CBTC system is a
15 proven architecture and it's a proven system, but that the interface between the CBTC
16 system and this particular vehicle is not proven. Is that fair?

17 **MR. MICHAEL BURNS:** That is a very accurate and apt
18 description.

19 **MR. FRASER HARTLAND:** Okay. And Alstom and Thales had no
20 contractual relationship on this project, is that right?

21 **MR. MICHAEL BURNS:** That is correct.

22 **MR. FRASER HARTLAND:** Okay. And was there any other
23 agreement or Memorandum of Understanding that governed the relationship between
24 Alstom and Thales?

25 **MR. MICHAEL BURNS:** No, I mean, the two companies are, you
26 know, well-respected industry leaders and would have known what was expected of
27 each other to reach an agreement of that -- of the interface of the two parties.

28 **MR. FRASER HARTLAND:** Okay. And we'll come to that. Before

1 that, though, do you know if that's provided for differently on other projects? Would
2 there be other cases where the signalling supplier and the rolling stock supplier would
3 have a contract and would -- would have a direct relationship with one another?

4 **MR. MICHAEL BURNS:** No, I'm not in a position to know that or
5 answer that.

6 **MR. FRASER HARTLAND:** So you can't say whether you think a
7 contractual relationship between those two parties would be more beneficial for a
8 project like this?

9 **MR. MICHAEL BURNS:** Sorry; could you repeat your question?

10 **MR. FRASER HARTLAND:** You're not in a position then to -- like,
11 do you have a view as to whether a contract between the signalling supplier and the
12 rolling stock supplier would be more beneficial on a project like this than going through
13 the contractor as was done here?

14 **MR. MICHAEL BURNS:** I can see benefits to either pathway, and
15 I'm just speaking generically in executing a complex project. There's benefits in
16 centralizing the integration activity. In some cases, there will be interfaces or
17 requirements that might extend beyond the two parties. So you need that -- the top-
18 level system integrators' oversight of what the decisions are being made between the
19 train and the signalling systems.

20 Having said that, I could see the argument of having some
21 agreement of how the two subcontractors would find a way to jointly come to that final
22 interface agreements in a -- probably a more compressed and integrated design
23 development.

24 **MR. FRASER HARTLAND:** Okay, that's useful, Mr. Burns. Thank
25 you. And I actually want to talk about those two elements, both the overall systems
26 integration and also the specific interface between Alstom and Thales, but if we could
27 start with overall systems integration on this project. Who, to your knowledge, was
28 responsible for overall systems integration on this project?

1 **MR. MICHAEL BURNS:** Our subcontract agreement identified
2 OLRTC as the system integrator.

3 **MR. FRASER HARLAND:** Okay. And how did OLRTC fulfil that
4 role?

5 **MR. MICHAEL BURNS:** They had challenges in fulfilling that role,
6 in providing the -- a competent system integrator that would be the mediator between
7 two parties that are trying to come to a mutual agreement of how they're going to
8 interface with each other.

9 **MR. FRASER HARLAND:** And to your knowledge, was that
10 challenge just for the Alstom Thales interface, or was it also for broader interfaces on
11 the project?

12 **MR. MICHAEL BURNS:** We saw similar challenges with other
13 systems. One I can recall is the SCADA interface, SCADA subsystem. There were
14 challenges in getting the SCADA interfaces finalized, and because Thales also
15 interfaces to SCADA, we had firsthand knowledge of those challenges. That interface
16 came together very late in the design timeline.

17 **MR. FRASER HARLAND:** Did you express your concerns about
18 these challenges that OLRTC was experiencing to OLRTC?

19 **MR. MICHAEL BURNS:** Yes, I did.

20 **MR. FRASER HARLAND:** And how did you do that?

21 **MR. MICHAEL BURNS:** Well, we would have meetings, regular
22 meetings, in Ottawa, and I expressed that to the executives. And as part of my either
23 monthly reports or schedule updates, I would identify issues on schedule and how the
24 system integration or lack thereof was impacting progress.

25 **MR. FRASER HARLAND:** Okay. I'd like to take you to a letter
26 that's THC000078.

27 **--- EXHIBIT NO. 087:**

28 THC000078 – Letter from Thales to OLRT Constructors 29

1 February 2016

2 **MR. FRASER HARLAND:** So, this is a letter, Mr. Burns, dated
3 February 29, 2016. Do you see that?

4 **MR. MICHAEL BURNS:** Yes, I do.

5 **MR. FRASER HARLAND:** And if we can scroll down to the second
6 paragraph? And Mr. Burns, you'll see it's address to Alex. Would that be Alex Turner,
7 OLRTC's contract administrator?

8 **MR. MICHAEL BURNS:** Yes, and his -- at that time, he was
9 responsible for Alstom and Thales' subcontracts.

10 **MR. FRASER HARLAND:** Okay. And just looking at the second
11 paragraph, you say -- and we'll go to the bottom of the letter after, but I can tell you this
12 is a letter with your signature on it, and it says, "As systems integrator, Thales" -- so,
13 anyway, that's fine. So, Mr. Burns, you see that this is a letter with your signature? You
14 agree?

15 **MR. MICHAEL BURNS:** Yes. I drafted this letter.

16 **MR. FRASER HARLAND:** Okay. If we could go back to the
17 second paragraph, please, on the first page?

18 "So, as systems integrator, Thales is dependent upon
19 OLRT to integrate our CBTC test and commissioning
20 schedule with OLRT's master civil construction schedule,
21 and all other subsystems that will interface with CBTC.
22 Thales continues to be concerned that OLRTC does not
23 have the requisite resources with the skills to integrate
24 CBTC vehicle and communication subsystems into the
25 infrastructure development schedule for a cohesive
26 executable schedule."

27 So, I take it this is reflective of the concerns that you had at the time
28 about systems integration?

1 **MR. MICHAEL BURNS:** Yes, and if I could elaborate, the schedule
2 is just one vehicle that would serve to -- serve OLRTC, as well as everyone else that is
3 part of the system solution to understand when inputs are coming into the schedule, and
4 outputs are expected. And without that level of detail, that integration of all the systems
5 into what at that time was just a construction schedule, very detailed, very well-crafted
6 schedule, but it didn't, to my interpretation, didn't include sufficient detail of all the
7 systems that were going to have to interface into that civil design.

8 **MR. FRASER HARLAND:** Okay. And in the second sentence,
9 when you say, "continues to be concerned," I would take it that this means that this isn't
10 the first time that you had expressed this concern to OLRTC?

11 **MR. MICHAEL BURNS:** That is correct.

12 **MR. FRASER HARLAND:** Okay. We can take this document
13 down. Thank you.

14 Just following on what you just said, the Commission heard last
15 week that the focus for -- about the first three years of the project was on construction
16 and not on systems integration. Would you agree with that?

17 **MR. MICHAEL BURNS:** I could understand and agree with that
18 assessment from -- I mean, I'm not a civil engineer, but given the scale of construction
19 that was required for this project, it's understandable that that might have had a greater
20 attention in the early years with the consequence of maybe losing out of progress on
21 things other than the bricks and mortar aspects of the project.

22 **MR. FRASER HARLAND:** And so, what would you have expected
23 to be in place that you didn't see particularly near the beginning of the project?

24 **MR. MICHAEL BURNS:** Well, if you don't, at the very outset of the
25 project, layout all the interfaces and have basically a system integration plan, people are
26 -- people or groups are operating independently. So, you may have your civil design
27 and construction progressing well, and without that integration, other systems like CBTC
28 or SCADA or Alstom or -- pick any of the major subs, will be proceeding down a

1 development path based on what they know needs to be done, but may not entail all of
2 the interfaces that ultimately needs to be done.

3 And said differently is, to meet the PA requirements, some entity
4 has to have an overarching view of what the subgroups are contributing to, meeting that
5 requirement. The requirements need to be parsed out to different groups.

6 **MR. FRASER HARLAND:** And what impact would you say this
7 had specifically on Thales?

8 **MR. MICHAEL BURNS:** Well, the civil design, the completion of
9 the guideways for our testing had a significant impact of when we could start. Alstom,
10 from the best of my knowledge, they're designing a new train from -- off of some -- a
11 European pedigree, but we -- those train -- that train development was much later than
12 was originally planned, which meant we couldn't start our testing of how our system
13 would -- or how the train would respond to the CBTC system.

14 **MR. FRASER HARLAND:** Understood, and we'll come back to
15 testing and commissioning, but I want to turn to discuss the specific interface between
16 Alstom and Thales first, if I could. So, I take it that you would agree with me that the
17 interface between the rolling stock and the signaling system is a key interface on a rail
18 budget?

19 **MR. MICHAEL BURNS:** Yeah. I identified it as a critical interface
20 very early.

21 **MR. FRASER HARLAND:** And that would require very tight
22 coordination in the outputs and deliverables between the two subcontractors?

23 **MR. MICHAEL BURNS:** Yes.

24 **MR. FRASER HARLAND:** And you would expect that the
25 schedules for those deliverables would be aligned ---

26 **MR. MICHAEL BURNS:** Yes, of course.

27 **MR. FRASER HARLAND:** --- in the two contracts? Okay. So, I
28 want to turn to schedules, and I understand from your previous interview that according

1 to its subcontract, Thales was required to provide three progressive design reviews, is
2 that right?

3 **MR. MICHAEL BURNS:** The overarching requirement of our
4 agreement was three design reviews: conceptual design, and then a preliminary design,
5 and then the final design of which the vehicle ICDs would be just one element.

6 **MR. FRASER HARLAND:** Okay. So, I'm going to take you to the
7 subcontract, if I could, which is at COMH0000011.

8 And if we could scroll down just a bit? Mr. Burns, I take it you
9 recognize this as the subcontract between OLRTC and Thales?

10 **MR. MICHAEL BURNS:** I saw the cover, but then it has changed
11 to something else.

12 **MR. FRASER HARLAND:** Okay.

13 **COMMISSIONER HOURIGAN:** Sorry, the document has
14 changed?

15 **MR. FRASER HARLAND:** What are you seeing, Mr. Burns?
16 You're not seeing a document anymore?

17 **MR. MICHAEL BURNS:** I see a header. It says, "return to
18 document list," and it's a witness -- I don't know.

19 **COMMISSIONER HOURIGAN:** Just standby.

20 **(SHORT PAUSE)**

21 **MR. MICHAEL BURNS:** Okay, now I see the subcontract
22 agreement.

23 **MR. FRASER HARLAND:** Okay. If we can go to page 188, which
24 is Schedule H of the contract? And you agree with me, Mr. Burns, this shows the
25 preliminary schedule that was set out for the subcontract?

26 **MR. MICHAEL BURNS:** Yes, and it shows the CDR or conceptual
27 design review, and then the PDR, preliminary design review, and then the final design
28 review.

1 **MR. FRASER HARLAND:** Okay. And just so I'm with you here, so
2 you have CDR meeting, and it's got a date of May 16th, 2013, correct?

3 **MR. MICHAEL BURNS:** Yes.

4 **MR. FRASER HARLAND:** And the preliminary design review
5 would have been for the August 23rd, 2013, correct?

6 **MR. MICHAEL BURNS:** Yeah. I think, actually, the dates are off
7 by a month. I believe CDR was June 2013, and it may just be a timing of when this was
8 developed and when the contract was finalized, but it was -- they're all off one month.

9 **MR. FRASER HARLAND:** Okay, so ---

10 **MR. MICHAEL BURNS:** But they're accurate.

11 **MR. FRASER HARLAND:** So, final design review, here we have
12 August 2014. You're saying it may have actually been September 2014?

13 **MR. MICHAEL BURNS:** It was September 2014.

14 **MR. FRASER HARLAND:** Okay, but, I mean, these are right, give
15 or take a month, you'll agree?

16 **MR. MICHAEL BURNS:** They're exactly correct with the offset of
17 one month.

18 **MR. FRASER HARLAND:** And at the final design review, you
19 mentioned having an interface control document, but am I right that you would have a
20 finalized, frozen ICD by the time of the final design review? Is that -- that's the idea, at
21 least, with these three ---

22 **MR. MICHAEL BURNS:** Yeah. Yeah, that would have been the
23 expectation, yes.

24 **MR. FRASER HARLAND:** And so, to put it another way, this
25 schedule means that Thales, according to its subcontract, is not expected to have a
26 final or frozen ICD until August or September of 2014?

27 **MR. MICHAEL BURNS:** Correct.

28 **MR. FRASER HARLAND:** Okay, thank you. We can take this

1 document down.

2 Were you aware of what Alstom's subcontract said about when it
3 could expect a final or frozen ICD from Thales?

4 **MR. MICHAEL BURNS:** At the very first meeting we had with
5 Alstom after the award, their vice-president, Derek Hurst, made it clear that his
6 arrangement or his contract called for an ICD to be finalized in August [sic] of 2013.

7 **MR. FRASER HARLAND:** Okay. I'm going to suggest to you that
8 it might have even been as early as April of 2013, and we can go to a document for that
9 if ---

10 **MR. MICHAEL BURNS:** Oh, no, I'm sorry. It was my mistake. It is
11 April. I think I said August.

12 **MR. FRASER HARLAND:** Okay. I do want to go to the Alstom
13 subcontract, PRR 0000120.

14 So, if we just scroll down a bit, you can see that this is the
15 subcontract between OLRTC and Alstom relating to the supply of rail vehicles for the
16 Ottawa project?

17 **MR. MICHAEL BURNS:** Okay.

18 **MR. FRASER HARLAND:** And if we can go to page 444? So, we
19 see a similar schedule as in the Thales subcontract, and it's not a great copy, but on
20 line 14, what it says there, sir, is signaling and equipment (Thales) final interfaces
21 specification freeze, and the date there is April 26th, 2013. Do you see that?

22 **MR. MICHAEL BURNS:** Yes. That's the date that Alstom vice-
23 president had made it very clear to OLRTC that that was their expectation.

24 **MR. FRASER HARLAND:** Okay. So, you'll agree with me that
25 there appears to be a significant misalignment in the schedule between the Thales
26 subcontract and the Alstom subcontract?

27 **MR. MICHAEL BURNS:** Yes, unfortunately.

28 **MR. FRASER HARLAND:** If we could go to page 588, and if we go

1 down to 2.1., so (b) here we see the same requirement, no later than 26, April, 2013,
2 the construction contractor and its CBTC supplier, which would be “Thales”, will provide
3 a CBTC certification in accordance with the attached Exhibit “A”. Do you agree with
4 that?

5 **MR. MICHAEL BURNS:** I can’t dispute what’s written in their
6 agreement.

7 **MR. FRASER HARLAND:** And I want to get your comment on (d)
8 here. It says: “If the construction contractor and its CBTC supplier has not provided a
9 CBTC specification on or before the date indicated in 3(1)(b) ...”, which, again, is the
10 26th of April, 2013: “... the subcontractor will propose its own CBTC specification based
11 on industry standards.”

12 So does this mean, to your understanding, that this would allow
13 Alstom to provide its own ICD document if it had not received one from Thales by April
14 26th, 2013?

15 **MR. MICHAEL BURNS:** I was not aware of that option when we
16 had the initial discussions, but in reading what (d) says, they’re claiming that they could
17 basically enforce their own ICD upon OLRTC’s CBTC subcontractor. But interesting,
18 while they had that leverage, that’s how I can interpret what this is, they never
19 expressed it to us and certainly didn’t take that position. So it may be that they never
20 had their own ICD. But that’s – I’m sorry, I’m speculating.

21 **MR. FRASER HARLAND:** No, that’s fine.

22 **MR. MICHAEL BURNS:** That’s all I can interpret from it.

23 **MR. FRASER HARLAND:** Okay. Just so I understand this
24 though, you’re saying you never got that kind of document from Alstom?

25 **MR. MICHAEL BURNS:** No.

26 **MR. FRASER HARLAND:** Okay. And from Thales’ perspective,
27 presumably if they had received one, that document would have needed to be amended
28 or changed if it was going to be used properly by Thales or can you help me with that?

1 **MR. MICHAEL BURNS:** Yeah, well – you can have – ideally as
2 both parties set out, and beyond the initial – initially flagging that they had this in their
3 agreement for an April ICD, it was never – the actions of Alstom, OLRTC and Thales,
4 we never focussed in on April 2013 and what we were going to do to mitigate that. It
5 was merely a statement that that’s what was in their contract but the parties continued
6 down the logical iterative development that was more aptly reflected in Thales’
7 subcontract.

8 **MR. FRASER HARLAND:** Okay. We can take that document
9 down, thank you.

10 I want to ask, if we set aside the misalignment in the subcontracts,
11 and we’re not focusing on the required dates, but would it have been possible for Thales
12 to provide a finalized ICD in April of 2013 for this project?

13 **MR. MICHAEL BURNS:** No.

14 **MR. FRASER HARLAND:** And can you explain why?

15 **MR. MICHAEL BURNS:** Well, there’s a number of systems on the
16 train that still needs to be developed; there needs to be a determination of the
17 communications between CBTC and the train, what signals are vital and which would
18 be transmitted through an MVB network.

19 It would be impossible to know all those things when the train was
20 still in development. And Alstom wouldn’t have been able to give us that information
21 because their trained development was, what we provided initially in May of 2023(sic)
22 was a preliminary ICD that laid out all the communications that we were expecting from
23 the train, to the train from us and back and forth. So we gave them a preliminary ICD
24 document that would facilitate the iterative discussions as if we went through a number
25 of workshops with Alstom, to try and get to a final ICD that both parties understood and
26 could work with.

27 **MR. FRASER HARLAND:** Okay. And before we talk more about
28 those workshops, I just want to understand this, because we heard from Alstom

1 witnesses that they had worked on other projects where a finalized ICD was available at
2 the start of the project. And I want to give you two examples and then I'll ask for your
3 response.

4 So Lowell Goudge gave the example of the New York City R160
5 fleet and said that in this project the trains had to be CBTC ready, which meant you
6 could drop a box in, hook up the components and it would work. And then Yves
7 Declercq gave the example of the Paris Metro Line 1 where the signalling system was
8 new but the design was frozen from the beginning of the project. So I'm wondering if
9 you're able to understand or explain how that might have been possible on those
10 projects but it wasn't possible here?

11 **MR. MICHAEL BURNS:** The only possible way, and first of all, my
12 – I have very limited understanding of the New York projects and one of the others, but I
13 would expect there would have been maybe pre-contract work that would have defined
14 a lot of that and it certainly wouldn't have been the cell track product, but this – I can't
15 imagine that there would be an equivalent project of signalling and vehicle and – even if
16 you knew something about the other party, there's still an exchange of information that
17 is required to be able to make sure each party's getting the messages and sending the
18 right messages to the other. It's not an insignificant undertaking and very critical to the
19 operation safety of the system.

20 **MR. FRASER HARLAND:** And perhaps another way to come at
21 this, if the vehicle was already an existing vehicle; if the vehicle was already in
22 existence and you were trying to put a signalling system into it, could a frozen ICD be
23 supplied in that case?

24 **MR. MICHAEL BURNS:** If the train was known and the signalling
25 system had visibility of that architecture, I think the ICD could come together faster but
26 not on the first month of the project.

27 **MR. FRASER HARLAND:** Okay. And it takes, of course, even
28 longer if the train is unknown and is still in the design and construction phase?

1 **MR. MICHAEL BURNS:** Right.

2 **MR. FRASER HARLAND:** The Thales' contract also contained a
3 scope split which set out who between Alstom and Thales was responsible for any
4 given deliverable; is that right?

5 **MR. MICHAEL BURNS:** That's correct.

6 **MR. FRASER HARLAND:** And to your knowledge the scope split
7 was the same in both subcontracts?

8 **MR. MICHAEL BURNS:** Yes.

9 **MR. FRASER HARLAND:** And I'm not going to take you back to
10 the subcontracts because I don't think there's any dispute that the scope split was
11 identical. I'm sure my friends will correct me if I'm wrong about that. But I understand
12 that even with the same scope split there were still some disagreements between
13 Alstom and Thales on the work to be conducted; is that fair?

14 **MR. MICHAEL BURNS:** Yes. And that, you could argue, is a
15 product of this exchange of information and understanding what either side needed.

16 **MR. FRASER HARLAND:** So one of those issues was that, I
17 believe, Alstom was expecting what they came – what came to be referred to as “plug-in
18 play” or “pre-wired racks”; can you tell us about that?

19 **MR. MICHAEL BURNS:** Yeah, I – I don't like the expression
20 “plug-n play” because it's really not apt for this application, but that aside, what was
21 expressed was they expected a fully wired, fully populated rack that they would just
22 literally drop into the train and bolt down, and then connect a few cables to the train
23 runs.

24 **MR. FRASER HARLAND:** And that's not what was supplied, I take
25 it?

26 **MR. MICHAEL BURNS:** Well, in a manner, it was. We had a
27 requirement to do a prototype VOBC rack assembly, which we did and completed in, I
28 think, December of 2014, where we had the rack, all the modules that would populate

1 that rack. The back plane, all the wires were assembled, and OLRTC witnessed that
2 first article product.

3 And then thereafter, I guess one of the gaps -- and these are
4 natural, that sometimes things aren't fully explained, or in this case, it was just a miss, I
5 assume. We were under contract to pre-wire just the first two trains. I guess it was the
6 two prototype trains, but no one, Alstom or Thales, had the responsibility to do the pre-
7 wiring of the remaining fleet. So, OLRTC recognized this and gave us a variation order
8 to execute that, which we did.

9 So, we created the -- basically, the wiring harnesses. They were
10 then assembled onto the racks, and tested by the subcontractor, and then delivered to
11 Ottawa. And with those racks came all the modules that had to populate that rack.
12 Alstom had an objection that the modules weren't assembled into the rack, and I think
13 they failed to recognize the interchangeability and the benefits to the end user for
14 reliability and maintainability.

15 The modules are all factory tested and we know that they will slide
16 in and mount to the back of the harnesses at the back of the rack, and you don't want to
17 have a dedicated module, like a main processor unit or peripheral processor unit, to a
18 particular train. You want them to be interchangeable. As there is maybe a failure in
19 one module, you are able to take another module and swap it out, and then you do the
20 repair on the module.

21 But it is this misconception that Alstom is characterized as not
22 being plug and play. We gave -- they had all the pieces. The rack was wired up. All
23 that was involved was taking the modules and sliding them on the rails onto the VOBC.

24 **MR. FRASER HARLAND:** In your formal interview, you told us that
25 there was -- or, I think my colleague, Ms. Mainville, put it to you that there was an
26 unnatural division of responsibility between Alstom and Thales and the subcontract, and
27 you agreed with that?

28 **MR. MICHAEL BURNS:** Yes.

1 **MR. FRASER HARLAND:** Can you explain that for us?

2 **MR. MICHAEL BURNS:** My view of the division of the
3 responsibility was that there was too many hand offs between parties, and every time
4 there is a hand off, there is an opportunity for misinterpretation or misconception of what
5 the one party is giving and what the other party is maybe receiving. And that happened
6 in this case, where we had -- the scope of work was we provided the VOBC and all the
7 materials that are installed in the rack, as well as all the peripheral sensors that are
8 mounted on the train. In an ideal world, probably it would have been better to have the
9 supplier of these systems install them in the train, whereas in this breakdown, and I am
10 assuming the logic was that it was maybe more cost effective to have Alstom install,
11 physically install our equipment, while they already have a team of resources
12 assembling the trains themselves. Is that -- I'm not sure if I adequately answered your
13 question.

14 **MR. FRASER HARLAND:** That's helpful. I think, at risk of
15 oversimplifying, I mean, I think you are saying that the fewer sort of -- I mean, I think
16 you might have put it in your interview that, you know, if you could have had one plug
17 between the VOBC and the train, that would be ideal. The closer that you can get to
18 that the better, as far as division of work and as far as ---

19 **MR. MICHAEL BURNS:** That's an oversimplification, but it is more
20 demonstrable in a perfect world if you just had what I think Lowell has referenced as a
21 plug and play. Ideally, he would have liked us to come in with an Apple computer and
22 put it down and plug it in to fulfill that plug and play characterization.

23 **MR. FRASER HARLAND:** So, you have touched on this, but I
24 want to move to talking about how the interface worked in practice and some of these
25 interface meetings that occurred. So, starting at the -- from the preliminary design
26 review, is it fair to say that the goal was ultimately to get both parties to produce an
27 interface control document that accounted for the other party's design?

28 **MR. MICHAEL BURNS:** Yes.

1 **MR. FRASER HARLAND:** They wanted two fully aligned ICDs,
2 perhaps we can put it that way?

3 **MR. MICHAEL BURNS:** Right. I mean, each party had their own
4 in-house applications for the ICDs. So, at the end of the day, you wanted Alstom and
5 Thales to have mirror images of the same ICDs. So, our ICDs were, you know,
6 mechanical, the physical aspects of all the interfaces, where the rack would go in, how it
7 would be mounted, where speed sensors would be affixed to OBs, accelerometers, and
8 so on. That's the mechanical piece. And then on the more difficult aspect was the
9 communications side and what messages both parties needed and how one message
10 was received by the other.

11 **MR. FRASER HARLAND:** Okay. And so, this important interface,
12 I think you have told us that you would have expected OLRTC to be responsible for
13 managing this interface and managing this back and forth between the two (2) parties to
14 arrive at two integrated ICDs?

15 **MR. MICHAEL BURNS:** Yeah, and to OLRTC's credit, they were
16 able to bring in an experienced engineer with familiarity, I think his background was with
17 Bombardier, Jacques Bergeron, and he did, but he came on maybe a year on, so there
18 was a -- you know, some of it was in recognition of maybe the slow development of the
19 ICD. But Jacques did, to the best of his abilities, facilitate that closure on the ICDs.

20 **MR. FRASER HARLAND:** Okay. And if I suggest to you that he
21 arrived on the project in January of 2014, would that ---

22 **MR. MICHAEL BURNS:** That sounds about right, yeah.

23 **MR. FRASER HARLAND:** And so, there was no one in this role at
24 the beginning of the project, is that right?

25 **MR. MICHAEL BURNS:** No. There was no one of Jacques
26 Bergeron's pedigree. As it was initially explained to us, the contracts manager would
27 have -- it was the contracts manager's responsibility for Alstom and Thales, and that
28 that individual would fulfill the system integration role. But that was, I think, asking too

1 much of the individual.

2 **MR. FRASER HARLAND:** So, would it have been better to have
3 Mr. Bergeron involved in his role at the very beginning of the project, at the outset?

4 **MR. MICHAEL BURNS:** I think there would have been a material
5 benefit to everyone if Jacques was there on Day 1.

6 **MR. FRASER HARLAND:** And is that perhaps particularly true
7 since, as we discussed, this was a new interface, the Thales system had never been
8 interfaced with this ---

9 **MR. MICHAEL BURNS:** Yes.

10 **MR. FRASER HARLAND:** --- type of vehicle before? Okay.

11 **MR. MICHAEL BURNS:** But the statement would still stand,
12 whether it was new interface or not. You need somebody that has that higher level of
13 visibility of all the requirements.

14 **MR. FRASER HARLAND:** I think you told us in your interview that
15 Alstom and Thales were sort of left to do this integration piece on their own. Does that
16 mean before Jacques Bergeron arrived on the project or even after?

17 **MR. MICHAEL BURNS:** I would say prior to Jacques' arrival. I
18 would say we were -- I mean, they are two professional companies with experience in
19 knowing what is required. What gets lost, though, is you don't have the mediating
20 influence of an integrator that makes the trade-off decisions of going down one path or
21 another with the systems.

22 **MR. FRASER HARLAND:** Right. So, part of that role is for him to
23 determine, if there is a disagreement between the parties, what the decision is going to
24 be and how you can continue to progress on the ICD development, correct?

25 **MR. MICHAEL BURNS:** Correct.

26 **MR. FRASER HARLAND:** And so, once he arrived, Mr. Bergeron
27 convened various interface meetings between the parties; is that right?

28 **MR. MICHAEL BURNS:** That is correct.

1 **MR. FRASER HARLAND:** I think ---

2 **MR. MICHAEL BURNS:** They occurred before -- sorry, I am
3 jumping in.

4 **MR. FRASER HARLAND:** No, go ahead.

5 **MR. MICHAEL BURNS:** They occurred before. They were just not
6 as probably focused on a solution. The two parties tried to find a way to zero in. It
7 should be -- as you go through that development, you should be dealing with fewer and
8 fewer interface concerns or issues, but it didn't appear to be a diminishing list.

9 **MR. FRASER HARLAND:** Right. And you discussed some
10 challenges in these interface meetings where, for example, there would be an
11 agreement at the meetings, and then what Alstom would come back with would be a
12 document that was different from what had been agreed on; is that right?

13 **MR. MICHAEL BURNS:** Yes. And the example I can think of is we
14 thought we had an agreement, and then I believe it was minuted, and then it was sent --
15 the action was the parties were to go back to homeroom, update their ICDs, and then
16 we would come back and share them and make sure that we both said the same thing.
17 And, in one instance, I think what was agreed to with Lowell and Thales got sent back to
18 Paris, and what came back was effectively the Alstom signalling ICD that ignored the
19 nuances and decisions that were made at these integration meetings. So, that was
20 either a mistake that someone was not aware that we were interfacing to Thales as
21 opposed to their own signalling system, or it was just meant to delay, and I don't know.

22 **MR. FRASER HARLAND:** My understanding here is part of the
23 issue is that Alstom wanted to work from actual ICD documents as opposed to minutes
24 from meetings. Is that -- I mean, is that a normal practice, to take minutes out of a
25 meeting like this and use that to develop a technical document?

26 **MR. MICHAEL BURNS:** I don't see that as an issue. You've sat in
27 a room for a day or two and you need to document what decisions were taken or what
28 actions one party had to go and resolve, and the product of that could be minuted, it

1 should be minuted, and those decisions should then be reflected in the subsequent
2 update to the ICD.

3 **MR. FRASER HARLAND:** Okay. One particular issue that Mr.
4 Bergeron discussed with us in his interview was that there were issues in the ICDs
5 around double cut connections to the breakers in the VO CB [sic]. Is that something you
6 recall?

7 **MR. MICHAEL BURNS:** Yes. I think it was -- as I recall, the first
8 revision of our ICD, we identified the necessity of having -- the vital signals had to be
9 double cut. And Alstom misinterpreted, I believe, what the definition of -- what that
10 meant for them, the result of which I think Alstom had to undertake a big retrofit of the
11 wiring.

12 **MR. FRASER HARLAND:** Okay. And I understand that Mr.
13 Bergeron left the project in or around August of 2018. Does that sound right to you?

14 **MR. MICHAEL BURNS:** I would have guessed a little before that,
15 but I am not going to dispute that.

16 **MR. FRASER HARLAND:** Okay. I mean, regardless of when he
17 left, do you recall a change in the relationship between Alstom and Thales? Were there
18 renewed difficulties in the interfacing once he departed the project?

19 **MR. MICHAEL BURNS:** He had largely resolved the ICDs. I
20 mean, there were still outstanding issues that, you know, percolated along, but when he
21 left, I believe it was he had planned to retire. He had achieved, I think, most of what he
22 set out to do.

23 **MR. FRASER HARLAND:** Okay. Were the ICDs then ultimately
24 fully integrated?

25 **MR. MICHAEL BURNS:** Well, as evidenced by the trains
26 themselves that are operating, I guess my answer is yes.

27 **MR. FRASER HARLAND:** Okay. I recall in our interview that you
28 told us that they never fully spoke to each other, which sounds different from what you

1 are saying now, so I just want to make sure I understand your evidence on this point.

2 **MR. MICHAEL BURNS:** Okay. There may still be outstanding
3 issues or challenges we have with the interface, which is, I think, what I may have been
4 referring to on my witness statement. But what I am saying today is that the trains and
5 signalling are now communicating and, to the best of our knowledge, there aren't any
6 more surprises to be found.

7 **MR. FRASER HARLAND:** Okay. That's helpful. I do want to
8 discuss some of the issues that did seem to arise. There were some, I think, both
9 before and after revenue service. Prior to revenue service, I think you gave us an
10 example of an issue with the emergency brake command and the two systems not sort
11 of speaking to each other properly then. Could you explain that for us, please?

12 **MR. MICHAEL BURNS:** Yes. Alstom hadn't advised us that they
13 had within their own control a limit on the number of emergency brakes that could be
14 applied within a 15-minute window. And for safety reason or fire hazard, they forced a
15 reset of the train, which is, based on, what we've been told, it seems an understandable
16 behaviour, just a behaviour that we didn't -- they had not provided to us.

17 So, operationally, it has the benefit of, if you don't have a system
18 that -- sorry, let me reset. They had not shared that particular behaviour with us, and
19 Thales needs to know all of the behaviours of the train. So, that created an issue for us.
20 And on the other side, Thales has a routine maintenance check before the trains are
21 launched where we apply the EV just to make sure that the command is received, and
22 in so doing that, we found that there was this undisclosed behaviour from Alstom.

23 **MR. FRASER HARTLAND:** All right, so this is partly during --
24 essentially during testing, you're discovering issues that you would have preferred to
25 have had through a proper and complete design document, is that fair?

26 **MR. MICHAEL BURNS:** I think if -- I think if we had a full and
27 complete design document, yes, that would have been likely disclosed. Or -- and even
28 if it wasn't disclosed, had we been testing the train earlier as planned, sometimes you

1 will find those issues.

2 **MR. FRASER HARTLAND:** Okay. And ---

3 **MR. MICHAEL BURNS:** This happened late.

4 **MR. FRASER HARTLAND:** And I believe that after revenue
5 service, there was also -- an issue like this arose? I think you told us about a woman
6 who had her arm caught in a door. Could you tell us more about that, please?

7 **MR. MICHAEL BURNS:** Yeah, the -- I can explain it in top level.
8 My understanding is that we were advised that a woman had her arm caught or her
9 purse caught in the door or the door closed while she was -- before she was entering
10 the train or leaving the train -- I forget. And Thales has a -- effectively, a black box or a
11 system that monitors all the commands back and forth and so our analysis, we found
12 that the -- Alstom had repurposed our signals, because the -- the VOBC should have
13 command of the door enable commands and the -- this was a reaction that we would
14 not have had expected, and we took steps to modify our software to address this
15 unknown door reaction.

16 **MR. FRASER HARTLAND:** Right. But this was another example
17 of the interfaces not speaking to one another, as you had put it in your previous
18 interview, is that right?

19 **MR. MICHAEL BURNS:** In this case, I'll admit I'm speculating, but
20 it could be that at the time the ICDs were being finalized, this -- how they chose this
21 particular communication, the sensitive door edge communication, they may not have
22 finalized that themselves, So it may have been a change that they made and therefore
23 they wouldn't have known in advance or didn't have that information, but it was definitely
24 a behaviour that should have been disclosed to Thales.

25 **MR. FRASER HARTLAND:** And are you concerned that there are
26 potentially ongoing issues like this, in terms of the communication between the Alstom
27 and Thales systems that could continue to affect reliability today?

28 **MR. MICHAEL BURNS:** Okay. I believe there's been enough

1 mileage on those trains over the, what, two and a half years of revenue service that
2 probably every possible scenario would have arisen. I don't -- is that -- does that
3 answer your question?

4 **MR. FRASER HARTLAND:** I mean, yeah, I think I have your --
5 over time with the systems running, that's how some of these issues can be identified,
6 and given the amount of time that there's been, you don't have concerns that new
7 issues could arise?

8 **MR. MICHAEL BURNS:** I'm probably not the right person at
9 Thales to be asking that question, but I'm just looking at it from a probability assessment
10 that given the amount of mileage and operations, that I would have thought that any
11 other undisclosed nuance would have surfaced by now.

12 **MR. FRASER HARTLAND:** Okay, fair enough.

13 To close out on the systems integration piece, I want to take you to
14 another document, which is COW0148067. And while that's coming up, Mr. Burns, I
15 don't think you will have seen this document before; it's possible, but it's an RTG design
16 presentation, dated May 10th, 2012. So probably something you haven't seen. Is that
17 fair?

18 Can you -- if we scroll down just a little bit to the title of the
19 document.

20 So is this something you've seen before, sir?

21 **--- EXHIBIT No 088:**

22 COW0148067- Ottawa Light Rail Transit Project: Tunney's
23 Pasture to Blair Station Design Presentation #7 Vehicles &
24 Train Control Performance Requirements 10 May 2012

25 **MR. MICHAEL BURNS:** No.

26 **MR. FRASER HARTLAND:** Okay.

27 **MR. MICHAEL BURNS:** I've not seen it. And it's dated May 2012,
28 before my time.

1 **MR. FRASER HARTLAND:** Yeah.

2 **MR. MICHAEL BURNS:** Oh, I haven't seen this.

3 **MR. FRASER HARTLAND:** So if we can go to Slide 186?

4 And we have here from RTG some lessons learned with relation to
5 train control. I'm interested in these last three bullets in particular. So it says:

6 "Set up interface meetings as soon as possible. As
7 early as the proposal phase." (As read)

8 So is this something that would have happened on this project?

9 **MR. MICHAEL BURNS:** It predated my start at Thales, so I don't
10 know if that happened.

11 **MR. FRASER HARTLAND:** But we did speak, sir, about sort of the
12 lack of integration at the -- in the early stages of the project and you -- you'd still agree
13 with that; correct?

14 **MR. MICHAEL BURNS:** Oh, I agree with the statement. I just
15 don't know if it happened.

16 **MR. FRASER HARTLAND:** Okay. And then:

17 "Ensure all stakeholders have complete consolidated
18 programs schedule incorporating everyone's
19 activities." (As read)

20 Did that happen on this project?

21 **MR. MICHAEL BURNS:** No, it's somewhat of what I mentioned
22 earlier about a fully integrated schedule. So, no, it didn't happen.

23 **MR. FRASER HARTLAND:** And then the:

24 "Value of early integration tests [on] of train controls
25 rolling stock." (As read)

26 What about that?

27 **MR. MICHAEL BURNS:** Yes, under the contract agreement, we
28 were supposed to do early testing. Initially it was supposed to be in France where we

1 would do -- it's called characterization testing. And that's -- you're getting the initial
2 reaction of propulsion and braking from the trains, which is a key piece that feeds into
3 our automatic speed control software testing. So had we been given -- had they -- had
4 the train production and testing been executed as it was originally envisioned in the
5 contract, we would have had -- and then had the train been available then, we would
6 have had the opportunity to get a head start on our train control development.

7 **MR. FRASER HARTLAND:** Okay, that's helpful. And so you'd
8 agree with me that these points here would represent good practices or even best
9 practices for developing a train control system?

10 **MR. MICHAEL BURNS:** Absolutely. And it would apply to many
11 other industries.

12 **MR. FRASER HARTLAND:** And at least the bottom two weren't
13 part of this project, is that fair?

14 **MR. MICHAEL BURNS:** That's fair.

15 **MR. FRASER HARTLAND:** Okay. And if they had been
16 implemented, it could have assisted and eliminated some of the challenges that we've
17 been discussing that Thales experienced on this project?

18 **MR. MICHAEL BURNS:** It certainly could have improved the
19 overall execution of Thales's train control testing.

20 **MR. FRASER HARTLAND:** We can take that slide down. Thank
21 you.

22 I want to discuss a little bit more about scheduling, particularly
23 closer to revenue service. So I won't take you back to it, but I'd suggest that in that
24 Thales subcontract we reviewed earlier, revenue service availability was originally set
25 for May 24th, 2018, would you agree with that?

26 **MR. MICHAEL BURNS:** Yes.

27 **MR. FRASER HARTLAND:** And I think we can agree that that
28 date was missed?

1 **MR. MICHAEL BURNS:** Yes.

2 **MR. FRASER HARLAND:** Is it fair to say that Thales was advising
3 OLRT-C of risk to the revenue service availability date well over a year before that time?

4 **MR. MICHAEL BURNS:** Oh, well over a year, yes.

5 **MR. FRASER HARLAND:** And what were the main reasons for
6 Thales's delay at this time; why was it saying that revenue service was at risk that May
7 24th date of 2018?

8 **MR. MICHAEL BURNS:** The two primary elements were no trains.
9 And by trains, I mean they have to be certified trains, like, with -- that have been
10 dynamically tested and Thales has safety certified our onboard equipment with that
11 train. And then the guideway infrastructure delays.

12 So Thales does its testing by sections, or zones. And sometimes
13 when we eventually got to do some testing, it was -- it was incremental and piecemeal.
14 So infrastructure and vehicles in -- is the short answer.

15 **MR. FRASER HARLAND:** Okay. And ultimately, OLRT-C did
16 grant Thales's schedule relief; is that correct?

17 **MR. MICHAEL BURNS:** Yes. Yes, they -- well, they -- yes, they
18 did.

19 **MR. FRASER HARLAND:** Do you -- can you walk me through
20 what happened there?

21 **MR. MICHAEL BURNS:** As part of our subcontract, we have an
22 obligation not just to identify a risk of delay but when it's -- when it's obvious that the
23 delay is reasonably foreseen, we have an obligation to give the -- give notice to OLRT-
24 C. So we -- and we documented the reasons why we saw that May 2018 was not going
25 to be achieved. And when -- and I think OLRT-C acknowledged that and granted us a
26 variation order for the extra effort it would take for us to continue testing.

27 **MR. FRASER HARLAND:** Okay. And in your experience as a
28 contract manager, when schedule relief like that is granted, would you agree that it

1 represents a recognition from the contractor that the delays claimed are legitimate, and
2 in this case, they wouldn't have been caused by Thales, they were due to the other
3 issues that were being discussed?

4 **MR. MICHAEL BURNS:** Yes. And -- the short answer is yes. And
5 the specific answer here was OLRT-C did recognize that the delays were not of
6 Thales's making, but by others.

7 **MR. FRASER HARLAND:** Are you aware that Alstom was not
8 granted similar schedule relief?

9 **MR. MICHAEL BURNS:** I'd be -- I'd be surprised if they were given
10 schedule relief because the challenge was Alstom wasn't able to produce the train. So
11 unless there was an influence outside of Alstom's control, I wouldn't see that Alstom
12 would be entitled to an extension.

13 **MR. FRASER HARLAND:** So given the -- you know, I think we've
14 discussed the tight coordination that's required between Alstom and Thales and the way
15 they're relying on one another, and why it was important for there to be a coordinated
16 schedule in the sub-contract, so given that coordination, why is it that Thales getting
17 schedule relief wouldn't mean that Alstom should also get schedule relief at the same
18 time?

19 **MR. MICHAEL BURNS:** Well, what I'm -- what I had said was --
20 and I'll try again, is that it's the schedule relief and compensation for time would -- will
21 require, I guess, assignment of blame or who was -- who was responsible for the event
22 that caused the delay. And OLRT was -- OLRT-C wasn't attributing the delay in trains
23 or the delay in their infrastructure to Thales.

24 Conversely, Alstom was one of -- one of the key delaying elements.
25 And I could see how it would be reasonable for OLRT-C to hold Alstom to account for
26 not meeting their deliverables.

27 **MR. FRASER HARLAND:** Okay. I'd like to ask you some
28 questions now about maintenance. So we know that Thales had a sub-contract with

1 OLRT-C for the signaling system, but it also had a contract with RTM for maintenance;
2 is that correct?

3 **MR. MICHAEL BURNS:** That's correct.

4 **MR. FRASER HARLAND:** And what was your involvement with
5 that contract?

6 **MR. MICHAEL BURNS:** Well, they were both awarded at the
7 same time. The maintenance agreement came into force upon mainline revenue. And
8 maybe about a year ago, I was asked to also incorporate the maintenance agreement in
9 my work with the continuing of trying to commission the yard. So I would say within the
10 last year, I became involved with the -- with RTM on the maintenance agreement.

11 **MR. FRASER HARLAND:** Okay. And at a high level, what is
12 Thales under contract to do with the contract with RTM?

13 **MR. MICHAEL BURNS:** They were to provide the preventative
14 maintenance . They do -- and there is a 15-year midlife upgrade of the control centre, is
15 a significant component. And I think the stairs were all contracted under the
16 maintenance agreement as well.

17 **MR. FRASER HARLAND:** Okay. And when you say preventative
18 maintenance, do you mean preventative maintenance of the signaling system, or what
19 are we talking about there?

20 **MR. MICHAEL BURNS:** Yeah, our -- the maintenance agreement
21 is limited to the -- more of a support role to Alstom Maintenance, who has the -- given
22 the responsibility to maintain the Thales system. The P.M. is for Thales to do, I think,
23 an annual inspection of the -- our equipment, and then report the status of our
24 assessment of the -- that equipment. And in effect, it could be an assessment of Alstom
25 Maintenance's maintenance of our equipment.

26 **MR. FRASER HARLAND:** Okay. And we discussed an unnatural
27 division of responsibility between Alstom and Thales with relation to the signalling
28 system, is the division of responsibility better or clearer when it comes to the

1 maintenance contracts?

2 **MR. MICHAEL BURNS:** I think the division of responsibility is
3 clear, yes, on the maintenance side.

4 **MR. FRASER HARLAND:** In your previous interview, you
5 explained that Thales was responsible for producing various maintenance manuals, is
6 that right?

7 **MR. MICHAEL BURNS:** Yes.

8 **MR. FRASER HARLAND:** And those would be ---

9 **MR. MICHAEL BURNS:** Yes.

10 **MR. FRASER HARLAND:** --- produced to RTM?

11 **MR. MICHAEL BURNS:** No, they're produced -- they were
12 produced under our contract with OLRT-C, delivered to OLRT-C, and we would use
13 those in training OLRT-C's trainers, and they would be shared by extension, OLRT-C
14 would share those with RTM.

15 **MR. FRASER HARLAND:** Right. Okay. So the -- under the
16 contract, they go to OLRT-C, and then OLRT-C passes them on to RTM; correct?

17 **MR. MICHAEL BURNS:** That should be what happens, yes.

18 **MR. FRASER HARLAND:** And I think you told us that there were
19 times that RTM didn't have the most recent version of the manual, so you would -- you
20 would just provide it directly, is that -- is that right?

21 **MR. MICHAEL BURNS:** There were a few instances where what
22 they had as a record of the most recent revision wasn't the most recent revision. So I
23 don't know whether OLRT-C didn't provide, or RTM didn't -- I wasn't aware that they had
24 the more up-to-date manuals.

25 **MR. FRASER HARLAND:** So these would have been cases
26 where Thales had provided a document to OLRT-C but ---

27 **MR. MICHAEL BURNS:** RTM didn't ---

28 **MR. FRASER HARLAND:** RTM ---

1 **MR. MICHAEL BURNS:** --- write ---

2 **MR. FRASER HARLAND:** --- saying ---

3 **MR. MICHAEL BURNS:** --- the ---

4 **MR. FRASER HARLAND:** --- they don't have it, right?

5 **MR. MICHAEL BURNS:** Right. RGM being ---

6 **MR. FRASER HARLAND:** RGM is saying they don't have it;

7 right?

8 **MR. MICHAEL BURNS:** Right.

9 **MR. FRASER HARLAND:** Okay. And we heard from Alstom
10 Maintenance in a commission interview that although Thales provided a very good
11 manual it couldn't be used to full effect because Alstom didn't have access to Thales'
12 log-decoder; is that something you're aware of or something you can speak to?

13 **MR. MICHAEL BURNS:** I'm aware of it and can speak to it.
14 There was a request made that Alstom wanted to have access to our local data
15 collector, what I referred to generically as a "black box". And this is a proprietary tool of
16 Thales, and more to the point Alstom has its own black box on the train where they
17 collect similar data, maybe identical data. And the reason they wanted our LDC, we
18 discovered, was that Alstom's system would overwrite every four days, whereas our
19 system, the data was captured and saved either for a longer period of time or to an off
20 site server. So when there would be incidents or questions that came up, if it had – if
21 the question was arising after four days, Alstom had no data to investigate. So they
22 wanted Thales' system to be able to do that investigation.

23 **MR. FRASER HARLAND:** And how was that issue resolved or
24 was it resolved?

25 **MR. MICHAEL BURNS:** Well, we have not provided, nor will we
26 provide them the proprietary tool. How it's manifested, it has been under the
27 maintenance agreement, RTM can authorize Thales to do, what they call, a technical
28 call-out where they'll ask us to do an investigation. And so we do the investigation and

1 we report back to RTM what we found on the incident.

2 **MR. FRASER HARLAND:** Okay. I just have a couple of more
3 areas of questioning for you, Mr. Burns.

4 **MR. MICHAEL BURNS:** Okay.

5 **MR. FRASER HARLAND:** One is related to operational
6 restrictions. So in our previous interview Ms. Mainville asked you about the automation
7 of the maintenance and storage facility; do you recall that?

8 **MR. MICHAEL BURNS:** Yes.

9 **MR. FRASER HARLAND:** And you confirmed that the MSF is still
10 not automated; is that right?

11 **MR. MICHAEL BURNS:** That is correct.

12 **MR. FRASER HARLAND:** And so because of that lack of
13 automation Thales has imposed restrictions on the operators; is that right?

14 **MR. MICHAEL BURNS:** Until the yard is commissioned, fully
15 commissioned, and that is for OLRT operations, there may be some things that we have
16 deemed them to be not a desirable activity, just as we have safe operating restrictions –
17 safety operating restrictions which we say “Absolutely, you cannot do a certain thing”;
18 you can’t throw the switches in the yard from the control centre because the switches
19 aren’t commissioned. You have to manually throw those switches and that was – but
20 from a process, as we’re testing and we’re updating the software, the system has
21 become more mature, more capable and those operating restrictions then morph or are
22 eliminated and the same for safety restrictions. They get eliminated because of the
23 advancement of the maturity of the testing system.

24 **MR. FRASER HARLAND:** Okay. And on a practical level, how do
25 these restrictions get imposed; are they in a document or how does that happen?

26 **MR. MICHAEL BURNS:** There’s a document and we issue that –
27 typically it is released with a software update where we provide a safety certification of a
28 new software release. We stipulate the conditions for use of that software and some of

1 those conditions include ORs and SORs.

2 **MR. FRASER HARLAND:** Okay. And I want to show you a
3 document now, COW0459399.

4 **--- EXHIBIT No. 089:**

5 COW0459399 – Ottawa Light Rail Transit Project Ottawa
6 Confederation Line Phase 1 Operational Restrictions
7 Document 19 August 2019

8 **MR. FRASER HARLAND:** So this is a document from OLRTC – if
9 we can scroll down just to see the title, called an “Operational Restrictions Document”.
10 These are operational restrictions imposed by OLRTC. I’m just want to make sure I
11 understand, do Thales’ operational restrictions find their way into this document or does
12 Thales have its own document that it would issue?

13 **MR. MICHAEL BURNS:** Thales has its own document that it
14 issues. I’m not sure if the content of our – this is more of a static, as I’ve reviewed this
15 document, I saw it, I think, yesterday, it’s an assessment of the system’s readiness for
16 service, if I recall correctly. Whereas our ORs are a little more dynamic. But there may
17 be elements within this document that give relief or relaxation of ORs.

18 **MR. FRASER HARLAND:** Okay. That’s helpful, and I just want to
19 take you to one page of this document, page 23.

20 **MR. MICHAEL BURNS:** Okay.

21 **MR. FRASER HARLAND:** If we can scroll down, a little bit more,
22 just so we can see the whole MSF section here. Mr. Burns, I’ll give you a minute just to
23 review this and my question in relation to this, is if this accords with Thales’ restrictions
24 on the MSF or if these are two different sets of restrictions? If you could just help me
25 with that.

26 Okay. Just one moment.

27 I would say the first three paragraphs apply. Then you’re getting
28 into stinger cables which is not us, but it – there’s not a direct co-relation but it follows

1 along the same principles that we would apply these ORs. But our ORs, I don't believe
2 were incorporated in this document, from what I've read here.

3 **MR. FRASER HARLAND:** That's helpful; thank you, Mr. Burns.
4 We can take that document down. Just one last short set of questions for you, sir.

5 And that relates to the speed profiles of the signalling system. So I
6 understand that the signalling system allows the operator to operate the system at
7 different speed profiles; is that correct?

8 **MR. MICHAEL BURNS:** In reaction to the rail conditions, yes.

9 **MR. FRASER HARLAND:** Okay, so part of the reason for that
10 would be, for example, to allow for different control in different types of weather, for
11 example?

12 **MR. MICHAEL BURNS:** Right. You would have a different
13 braking reaction. So you avoid a slip-slide condition.

14 **MR. FRASER HARLAND:** And is part of the expectation there
15 that the operator would make use of the different speed profiles available according to
16 the conditions and according to the weather?

17 **MR. MICHAEL BURNS:** That would be our expectation. That was
18 part of the training, that was part of what's in our manuals. So – and I assume there's
19 been incidents where maybe there has been – well, flat wheels is probably the largest
20 one that I can recall that would be contributed by not applying the right speed profile.

21 **MR. FRASER HARLAND:** Right. So that's where I was wanting
22 to go with you, Mr. Burns. It's my understanding that early in the systems operation the
23 City was attempting to hold the system to the sort of fastest/best level of service and not
24 sort of adapting to different conditions or different weather, and that led to more sort of
25 emergency braking than might have been needed, led to excessive emergency braking
26 and wheel flats; is that your understanding of what happened?

27 **MR. MICHAEL BURNS:** I know of the event, but I can't comment
28 of the conditions that brought that about.

1 **MR. FRASER HARLAND:** Okay. Fair enough. But just to go back
2 then to your previous evidence, there are different speed profiles available to the
3 operator and Thales expects the operator to make use of those different speed
4 profiles ---

5 **MR. MICHAEL BURNS:** Yes, that's ---

6 **MR. FRASER HARLAND:** --- based on the conditions?

7 **MR. MICHAEL BURNS:** Absolutely, yes.

8 **MR. FRASER HARLAND:** Okay. Mr. Commissioner, those are all
9 of my questions for this witness. Thank you.

10 **COMMISSIONER HOURIGAN:** All right. Thank you. We will take
11 the afternoon break.

12 **THE REGISTRAR:** Order. All rise. The Commission will recess
13 for 15 minutes.

14 --- Upon recessing at 3:47 p.m.

15 --- Upon resuming at 4:05 p.m.

16 **THE REGISTRAR:** Order. All rise. The Commission has
17 resumed.

18 **COMMISSIONER HOURIGAN:** All right, is the witness there?

19 **MR. MICHAEL BURNS:** Hello?

20 **COMMISSIONER HOURIGAN:** Hello, Mr. Burns, are you there?

21 **MR. MICHAEL BURNS:** Yes, I am.

22 **COMMISSIONER HOURIGAN:** Okay. We see you now. That's
23 good. As I said at the outset, you will be asked questions by a number of different
24 parties, by their counsel. So, you have been asked questions by Commission counsel,
25 now you will be asked questions by counsel for the City.

26 **MR. MICHAEL BURNS:** Okay.

27 **COMMISSIONER HOURIGAN:** I believe it is Mr. Gardner. Okay.
28 You can hear us all right? We can't hear you. We still can't hear you. I will let you

1 know when we hear you. There, we hear you now, I think.

2 **MR. JESS GARDNER:** Okay. You can hear me?

3 **COMMISSIONER HOURIGAN:** Okay. Yes, it's fine. Very good.

4 Go ahead.

5 **MR. JESSE GARDNER:** Thank you, Mr. Commissioner, my name
6 is Jesse Gardner.

7 **--- CROSS-EXAMINATION BY MR. JESSE GARDNER:**

8 **MR. JESSE GARDNER:** Mr. Burns, I am counsel for the City. I
9 am going to ask you a few questions about Thales' involvement in the project. You are
10 aware that RTG submitted a proposal for the OLRT project in September of 2012, is
11 that right?

12 **MR. MICHAEL BURNS:** I am not aware of the date, but yes.

13 **MR. JESSE GARDNER:** You are aware that RTG submitted a
14 proposal including for Thales to provide the CBT system?

15 **MR. MICHAEL BURNS:** Correct.

16 **MR. JESSE GARDNER:** And Thales would have provided RTG
17 with information about its proposed scope of work for inclusion in that proposal
18 document; is that right?

19 **MR. MICHAEL BURNS:** That's my understanding, yes.

20 **MR. JESSE GARDNER:** I would like to show you the systems and
21 vehicles portion of the proposal. It is document COW 523276. Okay. So, once the
22 document is open, if we could take you down to page 14 of the PDF? And near the
23 bottom of page 14, if we scroll down, you will see the paragraph starts with "Both Alstom
24 and Thales". Do you see that, Mr. Burns?

25 **--- EXHIBIT No. 090:**

26 COW0523276 – 5.4 LRT Systems & Vehicles 30 September
27 2013

28 **MR. MICHAEL BURNS:** Yes, I do.

1 **MR. JESSE GARDNER:** So, it states,
2 “Both Alstom and Thales are contractually required to ensure
3 design visibility to RTG. Through this environment RTG’s
4 LRT systems and integration manager will manage the
5 design.”

6 So, would you agree with me that the City was being advised in
7 RTG’s proposal that Alstom and Thales would provide visibility into their designs to RTG
8 so that the system integration could be managed; is that right?

9 **MR. MICHAEL BURNS:** That is correct.

10 **MR. JESSE GARDNER:** And Thales understood that it would
11 need to be cooperative with Alstom and OLRTC with respect to its designs and interface
12 requirements; is that right?

13 **MR. MICHAEL BURNS:** That is correct.

14 **MR. JESSE GARDNER:** Okay. I would like to take you to the next
15 page, page 15. The first large paragraph at the top of the page. It starts with “To
16 ensure”. So, RTG -- apologies. So, looking at the first paragraph, you will see RTG is --
17 or, sorry. It says, “RTG states that Alstom and Thales are ideally suited to integrate the
18 best solution for the City.” Do you see that at the end of the paragraph? Do you believe
19 that Alstom and Thales are ideally suited to integrate the best solution for the City?

20 **MR. MICHAEL BURNS:** Yes, I see that.

21 **MR. JESSE GARDNER:** Okay. And you understand that that’s
22 what was being told to the City, correct?

23 **MR. MICHAEL BURNS:** Yes.

24 **MR. JESSE GARDNER:** Okay. I’d like to take you to page 68 of
25 this PDF. So, it is section 5.4.4 on page 68. And here it says,

26 “RTG is pleased to offer the SelTrac communication-based
27 train control system from Thales Canada for the OLRT
28 project. SelTrac’s proven CBTC architecture provides

1 comprehensive train control functionality with the highest
2 levels of performance, reliability, availability, and safety.”

3 So, here, Thales, as a subcontractor to OLRTC, was offering the
4 City a proven CBTC solution that would meet the City’s needs, correct?

5 **MR. MICHAEL BURNS:** That is correct.

6 **MR. JESSE GARDNER:** And you would agree with me that when
7 Thales considered its proposal for the project, it carefully reviewed the City’s needs and
8 requirements and concluded that its CBTC solutions could meet the City’s needs,
9 correct?

10 **MR. MICHAEL BURNS:** I can’t speak to the activities prior to my
11 employment, but I would assume, it is a reasonable assumption that that would have
12 been undertaken, yes.

13 **MR. JESSE GARDNER:** Right. That Thales believed that it had a
14 proven solution for the City; is that fair?

15 **MR. MICHAEL BURNS:** Yes. I am not arguing, I just wanted to
16 put a context of what I am agreeing to. But, yes.

17 **MR. JESSE GARDNER:** Okay. Thank you. And so, if we scroll
18 down this page, just above section 5.4.41, you will see, “Thales has never failed to
19 successfully deliver a SelTrac CBTC project and, once delivered, the system has never
20 been replaced.” Do you see that?

21 **MR. MICHAEL BURNS:** Yes.

22 **MR. JESSE GARDNER:** So, you would agree that, at the time, the
23 statement made to the City was accurate?

24 **MR. MICHAEL BURNS:** Yes.

25 **MR. JESSE GARDNER:** Okay. And you would agree that the
26 statement was made to intend to give the City confidence that the Thales system would
27 be successful, right?

28 **MR. MICHAEL BURNS:** Yes.

1 **MR. JESSE GARDNER:** All right . And I will take you down to just
2 one more reference on page 81, near the bottom of the page. So, we will scroll down to
3 the bottom. And you will find that it states, just before “station platform alignment”, that
4 “Thales has successfully integrated their system with more than a dozen different rolling
5 stock suppliers and will do so again on the OLRT project.” Do you see that?

6 **MR. MICHAEL BURNS:** Yes.

7 **MR. JESSE GARDNER:** So, here, the City was being told that
8 Thales had experience with integrating with various rolling stock providers and that
9 Thales will do this, or would do this, on this project, right?

10 **MR. MICHAEL BURNS:** Yes, and we did.

11 **MR. JESSE GARDNER:** Thank you. And we can take down that
12 document. Thank you very much.

13 You would agree that Thales represented to the City in its proposal
14 that it would provide a signalling system that would meet the requirements of the PA;
15 that was the idea, right?

16 **MR. MICHAEL BURNS:** That was the idea, yes.

17 **MR. JESSE GARDNER:** And Thales was obligated to meet all
18 requirements under the contract with OLRTC in relation to providing the CBT system,
19 right?

20 **MR. MICHAEL BURNS:** Yes.

21 **MR. JESSE GARDNER:** And this included an acknowledgement
22 that OLRTC was responsible for the integration of the system and that Thales would
23 execute its work with due regard for system integration; is that fair?

24 **MR. MICHAEL BURNS:** That is very fair.

25 **MR. JESSE GARDNER:** Okay. And under the contract with
26 OLRTC, Thales was required to give notice to OLRTC of any reasonable concerns that
27 it may have or had regarding achievement of integration, correct?

28 **MR. MICHAEL BURNS:** Correct.

1 **MR. JESSE GARDNER:** Okay. OLRTC was responsible for
2 systems integration, but I think you've agreed that Thales would still need to actively
3 cooperate with system integration efforts related to its work; is that fair?

4 **MR. MICHAEL BURNS:** That is fair.

5 **MR. JESSE GARDNER:** Now, Commission counsel asked you
6 about the integration issues between OLRTC, Alstom and Thales. You would agree
7 with me that RTG should have reported significant system integration issues between
8 Alstom, Thales and OLRTC to the City, given their significance, correct?

9 **MR. MICHAEL BURNS:** Yes, I agree.

10 **MR. JESSE GARDNER:** Okay. And Thales did not communicate
11 directly with the City about these issues or receive instructions from the City because
12 Thales' contract was with OLRTC; is that right?

13 **MR. MICHAEL BURNS:** Yes, it would be inappropriate for Thales
14 to directly communicate.

15 **MR. JESSE GARDNER:** Right. So, you would agree with me that
16 the City was not involved in the coordination problems between Alstom, Thales and
17 OLRTC; is that right?

18 **MR. MICHAEL BURNS:** That is right.

19 **MR. JESSE GARDNER:** So, Mr. Burns, you would agree with me
20 that it is important for a contractor to set a realistic and achievable schedule; is that fair?

21 **MR. MICHAEL BURNS:** Yes, it is.

22 **MR. JESSE GARDNER:** And a contractor should be transparent
23 with an owner in relation to its schedule?

24 **MR. MICHAEL BURNS:** Yes.

25 **MR. JESSE GARDNER:** To the extent that a schedule is
26 unrealistic, an owner can reject the schedule, but the owner would not prepare a
27 schedule for the contractor, right?

28 **MR. MICHAEL BURNS:** Right.

1 **MR. JESSE GARDNER:** The schedule belongs to the contractor,
2 fair?

3 **MR. MICHAEL BURNS:** Fair.

4 **MR. JESSE GARDNER:** And with respect to the division of work,
5 and I think Commission counsel touched on this briefly, you indicated that it was
6 unnatural, for example, OLRTC would install Thales' system on the vehicle, but that
7 work was ultimately completed properly, you would agree?

8 **MR. MICHAEL BURNS:** Yes, it was ultimately completed properly.

9 **MR. JESSE GARDNER:** Right. And in relation to how the CBTC
10 system works, you mentioned that it has different elements to it, right?

11 **MR. MICHAEL BURNS:** Yes.

12 **MR. JESSE GARDNER:** And one of those elements, you would
13 agree, is the automatic train system which controls the movements of the vehicles
14 based on preselected settings; is that a fair description?

15 **MR. MICHAEL BURNS:** It's fair.

16 **MR. JESSE GARDNER:** And would you agree with me -- well,
17 actually, you were asked earlier about the CBTC used for this being a new product, and
18 you answered that it wasn't a new product. This CBTC solution had been used around
19 the world. Would you agree with me that this was simply a product that had been used,
20 but was modified to fit this particular project; is that fair?

21 **MR. MICHAEL BURNS:** Modified to fit the particular environment.

22 **MR. JESSE GARDNER:** Right. Okay. And you would agree with
23 me that modifying or adapting Thales' existing CBTC system to different environments
24 or different projects, as you put it, is common and Thales would need to take into
25 account the specific environment for the project, but this is done in the regular course; is
26 that fair?

27 **MR. MICHAEL BURNS:** That is correct.

28 **MR. JESSE GARDNER:** Okay. And Commission counsel asked,

1 and I am paraphrasing, about a provision in the Thales contract which indicates that
2 Thales had not integrated its CBTC with a low-floor train before. But would you agree
3 with me that this wasn't an issue, Thales was confident that it could integrate the CBTC
4 system with the low-floor requirements and it did in fact do that?

5 **MR. MICHAEL BURNS:** We did in fact do that, yes.

6 **MR. JESSE GARDNER:** And you were confident, and Thales was
7 confident at the outset, that it could manage that component, is that fair?

8 **MR. MICHAEL BURNS:** That would be fair, yes.

9 **MR. JESSE GARDNER:** Okay. Commission counsel asked you
10 about the City – and again, I'm paraphrasing, not using the right brake or the
11 appropriate braking profiles for certain conditions, and that as a result the emergency
12 brake was used excessively. But you'd agree with me that the emergency brake can be
13 triggered automatically by the system if there's something wrong with the system, if
14 there is a failure, for safety reasons, it gets triggered; correct?

15 **MR. MICHAEL BURNS:** That is correct. Yeah, absolutely correct.

16 **MR. JESSE GARDNER:** So there's an -- I'm going to call it the
17 automatic safety system that triggers the emergency brake when there's a failure with
18 the vehicle or the component of the system, is that fair?

19 **MR. MICHAEL BURNS:** Yes.

20 **MR. JESSE GARDNER:** Okay. So I'm going to put it to you, Mr.
21 Burns, that during the first year of operations, there were a number of technical issues
22 with the vehicles; the inductor failures, issues with braking software, other technical
23 problems with the vehicle, which triggered the emergency brake. Are you aware of
24 that?

25 **MR. MICHAEL BURNS:** Not the specifics, no.

26 **MR. JESSE GARDNER:** But you are aware that the vehicle ---

27 **MR. MICHAEL BURNS:** I was...

28 **MR. JESSE GARDNER:** --- experienced ---

1 **MR. MICHAEL BURNS:** Yes.

2 **MR. JESSE GARDNER:** --- a number of emergency braking
3 incidents because of technical ---

4 **MR. MICHAEL BURNS:** Yes.

5 **MR. JESSE GARDNER:** --- problems?

6 **MR. MICHAEL BURNS:** Yes.

7 **MR. JESSE GARDNER:** Right. And you can't say with any
8 certainty how many times the emergency brake was triggered because of technical
9 problems or because of this alleged, you know, excessive braking by the City, is that
10 right?

11 **MR. MICHAEL BURNS:** I would not be aware of that, no.

12 **MR. JESSE GARDNER:** Right. But as you said, you are aware of
13 the technical problems which cause the vehicles to trigger the emergency brake, is that
14 right?

15 **MR. MICHAEL BURNS:** I was -- yes.

16 **MR. JESSE GARDNER:** Okay. And you'd agree with me that
17 when this system triggers the emergency brake for reasons that relate to technical
18 problems with the vehicle, that's not because of some setting that the operator applied,
19 it's because there's a problem with the vehicle and the emergency brake is being
20 triggered for safety reasons, right?

21 **MR. MICHAEL BURNS:** The triggering of emergency brakes, yes.
22 It's a -- it's a failsafe reaction. I can't speak to the circumstances that led to that, that
23 activation.

24 **MR. JESSE GARDNER:** Say, for example, though that the -- there
25 was a problem with the inductor or the overhead catenary system and ---

26 **MR. MICHAEL BURNS:** Okay.

27 **MR. JESSE GARDNER:** --- the emergency brake is triggered.
28 That's not the operator's fault, right; that's the way the system's supposed to work?

1 **MR. MICHAEL BURNS:** That should be the reaction -- safe
2 reaction of the system, yes.

3 **MR. JESSE GARDNER:** Okay, thank you.
4 Commission counsel took you to an OLRT (indiscernible), the
5 Operational Restrictions Document. It was a short time ago. Do you recall that?

6 **MR. MICHAEL BURNS:** Yes.

7 **MR. JESSE GARDNER:** I would like to just bring it up on the
8 screen again just so you can see it. It's COW0459399. And when it comes up on the
9 screen, we'll go to page 3. So this is the Operational Restrictions Document. If we look
10 at the first page, actually, if we scroll down, I believe it's signed and stamped by
11 Jacques Bergeron on August 20th, 2019. Do you see that?

12 **MR. MICHAEL BURNS:** Yes.

13 **MR. JESSE GARDNER:** Okay. So let's go to page 3, please.
14 Okay, so if we scroll down to -- you see, "Based on the evidence presented" at the
15 bottom?

16 **MR. MICHAEL BURNS:** Yes.

17 **MR. JESSE GARDNER:** So it says:

18 "Based on the evidence presented, it is considered
19 that the Ottawa Confederation Line Phase 1 Railway
20 is acceptable for revenue service subject to
21 adherence to any restriction, conditions and
22 limitations identified in this document and resolution of
23 issues identified in the engineering safety and
24 assurance case outstanding items." (As read)

25 Correct?

26 **MR. MICHAEL BURNS:** Correct.

27 **MR. JESSE GARDNER:** Okay, we can take the document down.
28 So, Mr. Burns, you'd agree with me that this system was ready for

1 revenue service based on this document, including the Thales system, but subject to
2 the restrictions in the Operational Restrictions Document, is that fair?

3 **MR. MICHAEL BURNS:** The Thales safety assurances would
4 have been a subordinate document within their overall document, and I believe the
5 conclusion of the report was that it was safe to operate in revenue, yes.

6 **MR. JESSE GARDNER:** Right. So you'd agree with me that as of
7 this date, the conclusion was that the system was safe to operate in revenue service?
8 Is that fair?

9 **COMMISSIONER HOURIGAN:** Just be clear on what system
10 you're referring to. Okay? The witness is talking about the Thales system, and I just
11 want to be clear that you're talking about the same system, all right? Go ahead.

12 **MR. JESSE GARDNER:** So why don't we -- why don't we break
13 that up? So let's start with the document we've just reviewed. We're talking about the
14 operational restrictions, and it said that subject to -- so the Ottawa Confederation Line
15 Phase 1 Railway is acceptable for revenue service. So the LRT system is acceptable
16 for revenue service, subject to the restriction conditions and limitations and the identify
17 -- the outstanding items identified in the engineering safety and assurance case. Is that
18 fair?

19 **MR. MICHAEL BURNS:** I'm not sure what question you're asking
20 me. Are you asking me to say that the overarching system was safe for revenue
21 service, to which my answer would be, I'm not in a position to offer an opinion. If you're
22 asking me to validate my interpretation of what that document says, that's a different
23 answer.

24 **MR. JESSE GARDNER:** Right. Well, so let's start with, you'd
25 agree with me that looking -- and why don't we bring the document back up?
26 COW459399, and we can go back to page 3.

27 So, Mr. Burns, if we go to the bottom of page 3 again, why don't I
28 start by asking; did you see this document and were you aware of it at the time it was

1 provided to the City, ---

2 **MR. MICHAEL BURNS:** No, I was not.

3 **MR. JESSE GARDNER:** --- it was executed? Okay.

4 **MR. MICHAEL BURNS:** The first time I saw it was 24 hours ago.

5 **MR. JESSE GARDNER:** Okay. So why don't -- why don't I ask
6 you this; would you agree with me that when -- when RSA was achieved, Thales was
7 confident that its system had been properly delivered?

8 **MR. MICHAEL BURNS:** Correct.

9 **MR. JESSE GARDNER:** Okay.

10 Those are the City's questions. Thank you, Mr. Commissioner.

11 Thank you, Mr. Burns.

12 **COMMISSIONER HOURIGAN:** All right, thank you, Mr. Gardner.

13 I didn't mean to interrupt, but I wanted to make sure that the two of you were talking
14 about the same thing, so I think you -- you handled it very well, so thanks.

15 **MR. JESSE GARDNER:** Thanks very much.

16 **COMMISSIONER HOURIGAN:** All right, next is RTG.

17 **MS. KARTIGA THAVARAJ:** Thank you, Commissioner.

18 Considering Commission counsel's questions, we actually have no
19 further questions for this witness. Thank you.

20 **COMMISSIONER HOURIGAN:** All right, very good. Thank you.

21 Next is Alstom.

22 **MR. CHARLES POWELL:** Good afternoon, Mr. Commissioner,
23 can you hear me?

24 **COMMISSIONER HOURIGAN:** I can hear you fine.

25 **MR. CHARLES POWELL:** Okay. Charles Powell, counsel for
26 Alstom.

27 **--- CROSS-EXAMINATION BY MR. CHARLES POWELL:**

28 **MR. CHARLES POWELL:** Good afternoon, Mr. Burns.

1 **MR. MICHAEL BURNS:** Good afternoon.

2 **MR. CHARLES POWELL:** Nice to see you again. I'm going to ask
3 you some questions for Alstom, okay?

4 **MR. MICHAEL BURNS:** Okay.

5 **MR. CHARLES POWELL:** And I'd like to start with going back to
6 the speed profiles that you were talking about with Commission counsel, and also with
7 Mr. Gardner from the City, but I think with Commission counsel you said that Thales's
8 system has varying speed profiles that can be engaged, and one of the times it can be
9 engaged is in inclement weather; is that correct?

10 **MR. MICHAEL BURNS:** That is correct.

11 **MR. CHARLES POWELL:** And I think you mentioned that you had
12 trained the operator and provided manuals to the operator with respect to those different
13 speed profiles?

14 **MR. MICHAEL BURNS:** We had trained OLRTC's trainers. So
15 under the principle of training the trainer. It was -- and so there may have been
16 operators at that time in that training, or it would have been subsequently delivered by
17 OLRTC's trainers.

18 **MR. CHARLES POWELL:** Okay. And that training when we talk
19 about it, the training that's going on with the operators, that's to OC Transpo, is that
20 right?

21 **MR. MICHAEL BURNS:** I would assume that that is who they are
22 training.

23 **MR. CHARLES POWELL:** That's who operates ---

24 **MR. MICHAEL BURNS:** Again, ---

25 **MR. CHARLES POWELL** --- the system? ...

26 **MR. MICHAEL BURNS:** Yeah, I understand that. The point I'm
27 trying to make is that we're not aware of who -- all of the students that were trained at
28 that time.

1 **MR. CHARLES POWELL:** Understood. But your manual didn't
2 provide it to OLRTC. It's similar. They have when to engage these different speed
3 profiles, is that right?

4 **MR. MICHAEL BURNS:** Yes. Yes.

5 **MR. CHARLES POWELL:** All right. And Mr. Gardner talked to you
6 about circumstances. I think he talked about issues with the vehicle that could engage
7 the emergency brake, do you recall that?

8 **MR. MICHAEL BURNS:** Yes.

9 **MR. CHARLES POWELL:** I think there's also instances where the
10 emergency brake can be engaged by improper operation by the operators. Would you
11 agree with that?

12 **MR. MICHAEL BURNS:** That's true.

13 **MR. CHARLES POWELL:** And scenarios, for instance, where an
14 operator is taking the vehicle out of automatic train control and puts it into manual, if
15 they do that improperly, the emergency brake will engage?

16 **MR. MICHAEL BURNS:** Yes.

17 **MR. CHARLES POWELL:** And are you aware that those instances
18 took place on the project after it went into revenue service?

19 **MR. MICHAEL BURNS:** No, I am not.

20 **MR. CHARLES POWELL:** Okay. All right. Let's talk now about
21 integration, system integration, Mr. Burns, and you talked at length this morning and in
22 your previous interview with Commission counsel about the importance of a system
23 integrator role, correct?

24 **MR. MICHAEL BURNS:** Correct.

25 **MR. CHARLES POWELL:** And in your view, it's a very important
26 position, correct?

27 **MR. MICHAEL BURNS:** Correct.

28 **MR. CHARLES POWELL:** And on this project, I take it you agree

1 with me that OLRTC had the role of system integrator?

2 **MR. MICHAEL BURNS:** Yes.

3 **MR. CHARLES POWELL:** And you also today, during your
4 evidence given to Commission counsel and in your previous interview as well, you
5 expressed -- it was expressed to you by OLRTC that they were having difficulties
6 fulfilling that role?

7 **MR. MICHAEL BURNS:** Yes, they did.

8 **MR. CHARLES POWELL:** And I think you said in your interview
9 with Commission counsel that -- and I may be paraphrasing here, but I think you said it
10 was made abundantly clear to you by OLRTC that they viewed their inability to fulfill that
11 integrator role was a critical problem, is that right?

12 **MR. MICHAEL BURNS:** They did say that, yes.

13 **MR. CHARLES POWELL:** And when we talk about system
14 integrator, and I think you said this as well in your evidence this morning, there is the
15 overall arching system integrator, which is the role of OLRTC, correct?

16 **MR. MICHAEL BURNS:** Yes.

17 **MR. CHARLES POWELL:** And there is also the integrator of these
18 various interfaces, so for instance, Alstom and Thales, correct?

19 **MR. MICHAEL BURNS:** Yes.

20 **MR. CHARLES POWELL:** So, it comes down a level, but OLRTC
21 is still responsible for that level of integrating Alstom and Thales, correct?

22 **MR. MICHAEL BURNS:** That is correct.

23 **MR. CHARLES POWELL:** And I take it that your evidence is that
24 when you said you raised concerns about the system integrator role, it was with respect
25 to that overall umbrella system integrator, as well as the integrator with respect to
26 Alstom and Thales?

27 **MR. MICHAEL BURNS:** All aspects.

28 **MR. CHARLES POWELL:** All aspects. Thank you. And the first

1 integrator that was put forward, or the first individual that was put forward by OLRTC to
2 act as system integrator was Alex Turner, is that correct?

3 **MR. MICHAEL BURNS:** That is correct.

4 **MR. CHARLES POWELL:** And in your view, he didn't have the
5 requisite experience, right?

6 **MR. MICHAEL BURNS:** That is my view, yes.

7 **MR. CHARLES POWELL:** His role was more of a contract
8 manager role? He had never integrated systems before, was your understanding?

9 **MR. MICHAEL BURNS:** I don't know what he had done in the
10 past, but yes, in his role, he was the subcontract manager.

11 **MR. CHARLES POWELL:** Okay. But as the role for a system
12 integrator, I take it you will agree with me that part of that role is to ensure that there is
13 alignment between the two subcontractors, for instance, Alstom and Thales, as to what
14 they're going to deliver and when they're going to deliver it, correct?

15 **MR. MICHAEL BURNS:** Yes, of course.

16 **MR. CHARLES POWELL:** And part of that is ensuring that the
17 schedules are aligned, correct?

18 **MR. MICHAEL BURNS:** Correct.

19 **MR. CHARLES POWELL:** And we talked a little bit today about
20 how Commission counsel took you through about how there was misalignment in these
21 two schedules between Alstom and Thales, correct?

22 **MR. MICHAEL BURNS:** Yes.

23 **MR. CHARLES POWELL:** Yes. Thales was supposed to deliver
24 its finalized spec under its contract in September 2014, I think was what you said?

25 **MR. MICHAEL BURNS:** Yes.

26 **MR. CHARLES POWELL:** And you had mentioned that you knew
27 Alstom had a requirement to this contract to get a frozen spec by April 26, 2013,
28 correct?

1 **MR. MICHAEL BURNS:** Yes, that is what I was told by Alstom.

2 **MR. CHARLES POWELL:** And that misalignment in the
3 schedules, that's not Thales or Alstom's fault, that's the system integrator that's
4 supposed to be observing that in making sure that these two schedules align, correct?

5 **MR. MICHAEL BURNS:** I would disagree to some extent. The
6 system integrator might have been the recipient of that misalignment. The
7 misalignment would have been the product of whomever constructed the agreements.

8 **MR. CHARLES POWELL:** Right. Okay. It's OLRTC's issue, if I
9 can?

10 **MR. MICHAEL BURNS:** That's -- the long and short answer is yes.

11 **MR. CHARLES POWELL:** Right. Whether it's ---

12 **MR. MICHAEL BURNS:** It's the OLRTC ---

13 **MR. CHARLES POWELL:** Sorry, I didn't mean to talk over you
14 there, but whether it's the system integrator individual that decides this or OLRTC as a
15 whole, it's their job to align those schedules, correct?

16 **MR. MICHAEL BURNS:** Correct.

17 **MR. CHARLES POWELL:** Okay. Now, the misalignment we've
18 talked about today, and Alex Turner in his interview with the Commission, have you
19 read Mr. Turner's testimony?

20 **MR. MICHAEL BURNS:** No, I haven't.

21 **MR. CHARLES POWELL:** Okay. I'd like to show you it, because
22 he acknowledges the misalignment, and if we could take up Mr. Turner's transcript, it's
23 transcript number 132. I can't remember how many zeros are in front of it, but it's 132,
24 if we could show that on the screen, please?

25 And if we can go to page -- if you use the image instead of the
26 viewer, so it shows the other version of the transcript, which is where my page numbers
27 are? But it should be page 30 -- or 29 on the PDF page number. So, if you use the
28 image view instead of the viewer view? Can we switch to the image view? Yeah, thank

1 you.

2 **COMMISSIONER HOURIGAN:** Okay. So, we're on the right thing
3 now. So, your page number is what?

4 **MR. CHARLES POWELL:** It should be page 30 there. Yeah,
5 that's correct. We're in the right spot.

6 **COMMISSIONER HOURIGAN:** Okay, good.

7 **MR. CHARLES POWELL:** Line number 21 is what I'd like to show
8 the witness, please. If you can scroll down a little bit to the transcript, line 21? Yes.

9 So, here, we see at line 18, pardon me, Commission counsel asks,
10 "And in doing that, did you observe any misalignment between the two subcontracts?"
11 And Mr. Turner's answer is,

12 "Yes, the two subcontracts had schedules that were not well
13 integrated from the time they were signed. They were
14 obviously signed at different times with views to different
15 schedules, so the schedules were not aligned. As to the
16 implications of that, that was, you know, passed along to
17 technical and scheduling to assess the true impacts of it, but
18 the deliverable dates on one side or the other were not
19 aligned in the schedule in the original contracts."

20 And that, I take it you'll agree with me, that reflects what you saw
21 as well, that the schedules were not aligned, correct?

22 **MR. MICHAEL BURNS:** That is correct.

23 **MR. CHARLES POWELL:** And Mr. Turner and Commission
24 counsel, he's talking about two things. He's talking about the misalignment of the
25 contract, or these schedules, pardon me, correct? He talks about that, what we just
26 looked at, that the schedules were misaligned?

27 **MR. MICHAEL BURNS:** Yes.

28 **MR. CHARLES POWELL:** And the second part he talks about is

1 the impact of that, and he says that he passed that along to the technical and
2 scheduling teams to assess that impact, right?

3 **MR. MICHAEL BURNS:** That's what it says, yes.

4 **MR. CHARLES POWELL:** Okay. And I think you'll agree with me
5 from your previous evidence that you've given here, that despite that misalignment in
6 the schedules, Alstom and Thales engaged in numerous workshops to arrive at a frozen
7 CBTC specification eventually, correct?

8 **MR. MICHAEL BURNS:** Correct.

9 **MR. CHARLES POWELL:** And I think you'll also agree with me
10 that had OLRTC had a system integrator resource that was properly qualified in this
11 position earlier, they would have probably reduced some of the back and forth between
12 Alstom and Thales was your view, correct?

13 **MR. MICHAEL BURNS:** That's what I testified to Commission
14 counsel earlier today, yes.

15 **MR. CHARLES POWELL:** Yes. And some of the back and forth
16 could have been avoided, I think is what you said?

17 **MR. MICHAEL BURNS:** That's correct.

18 **MR. CHARLES POWELL:** Okay. And eventually, OLRTC brought
19 in Mr. Bergeron, and I think your evidence was that when Mr. Bergeron came in with a
20 proper system integrator, there was more progress that was made, is that fair?

21 **MR. MICHAEL BURNS:** That is correct.

22 **MR. CHARLES POWELL:** Now, with respect to the implications or
23 the impacts of that misalignment that Mr. Turner referenced to -- we can take down Mr.
24 Turner's transcript. Thanks. He talked about the implications to the schedule that he
25 passed on to the technical team and the scheduling team to look at, right? You saw
26 that?

27 **MR. MICHAEL BURNS:** Yes.

28 **MR. CHARLES POWELL:** And I think you talked a little bit about

1 today with the Commission counsel about -- he asked you whether because Thales had
2 received an EOT, whether Alstom should have also got an EOT, do you remember
3 that?

4 **MR. MICHAEL BURNS:** Yes.

5 **MR. CHARLES POWELL:** And your answer was, I am
6 paraphrasing again, but I think it was something along the lines of you don't know if
7 Alstom should have been afforded an EOT because you didn't see why they were
8 delayed; is that fair?

9 **MR. MICHAEL BURNS:** No. If I have heard your paraphrase, I
10 think it is inaccurate. I believe what I had said to Commission counsel was I would not
11 have expected that Alstom would have got a delay, because Alstom was independently
12 late on delivering their trains, whereas Thales was impacted by other people, Alstom
13 and the infrastructure from OLRTC. So, to me, it is reasonable that OLRTC would have
14 taken a position to Alstom that because you are late in producing your trains doesn't
15 mean that OLRTC needs to compensate you for that delay.

16 **MR. CHARLES POWELL:** Okay. So, I will break that down a bit,
17 but I think what you are saying is, based on what you know, Alstom shouldn't have been
18 given an extension of time because you don't know how Alstom was impacted outside
19 of Thales' work, do you?

20 **MR. MICHAEL BURNS:** That's correct. I am merely going off of
21 the product that wasn't made available to Thales for it to do its work.

22 **MR. CHARLES POWELL:** So, you are talking more about you
23 don't think Alstom should have had an extension of time because of the interaction with
24 Thales and that Thales didn't delay Alstom; is that fair?

25 **MR. MICHAEL BURNS:** Thales definitely did not delay Alstom.

26 **MR. CHARLES POWELL:** Now, you recall, Mr. Burns, because
27 you gave evidence at a previous proceeding in a dispute between OLRTC and Alstom;
28 do you remember that?

1 **MR. MICHAEL BURNS:** Vaguely, but yes, go on.

2 **MR. CHARLES POWELL:** You gave a witness statement, correct?
3 Do you remember that?

4 **MR. MICHAEL BURNS:** Oh, yes. Yes, I did.

5 **MR. CHARLES POWELL:** And you attended and you were cross-
6 examined on that witness statement, right?

7 **MR. MICHAEL BURNS:** That's correct, yes.

8 **MR. CHARLES POWELL:** Okay. And you recall that the claim
9 was by OLRTC for a number of liquidated damages against Alstom for delay?

10 **MR. MICHAEL BURNS:** Yes.

11 **MR. CHARLES POWELL:** And you recall that this was -- part of
12 the evidence that you gave was with respect to the back and forth with Alstom on the
13 CBTC specifications; is that right?

14 **MR. MICHAEL BURNS:** Yes, as I recall.

15 **MR. CHARLES POWELL:** And are you aware of the findings of
16 the arbitrator with respect to that arbitration?

17 **MR. MICHAEL BURNS:** As recently as part of this, counsel, I think
18 I've heard that there was a settlement reached, yes.

19 **MR. CHARLES POWELL:** Okay. Well, that's not exactly right. So
20 let's take up the award, if we could. It is ALS 0009613. All right. Can you see it there
21 on the screen, Mr. Burns?

22 **MR. MICHAEL BURNS:** Yes.

23 **MR. CHARLES POWELL:** You may have never seen this before,
24 but this is the award with respect to the dispute between Alstom and OLRTC.

25 **MR. MICHAEL BURNS:** Okay.

26 **MR. CHARLES POWELL:** And if we can go down to paragraph
27 206, which should be on page 57, please? Yes. So, the arbitrator's finding at
28 paragraph 206, Mr. Burns, is,

1 "I am further satisfied on a balance of probabilities that
2 the missed critical design freeze and interface dates for
3 the CBTC of the OBC specifications, P25 radio data and
4 design and styling information, as well as the late
5 delivery of the test track on the fully energized
6 Confederation Line which, as set out in the course of
7 Appendix K, would have entitled Alstom to schedule relief
8 as they caused or contributed to disruption and delay to
9 Alstom's design, manufacturing and testing progress."

10 Do you see that?

11 **MR. MICHAEL BURNS:** I see it.

12 **MR. CHARLES POWELL:** So, the arbitrator, after the evidence
13 went in, found that Alstom was entitled to schedule relief; do you see that? Would have
14 been entitled to schedule relief?

15 **MR. MICHAEL BURNS:** I see what is written, yes.

16 **MR. CHARLES POWELL:** So, that is different than your
17 understanding where you said you didn't know why Alstom should get schedule relief.
18 The arbitrator found they would be entitled to schedule relief, correct?

19 **MR. MICHAEL BURNS:** I can't speak to what the arbitrator's
20 criteria was. I offered my view based on my experience with the vehicle delays.

21 **MR. CHARLES POWELL:** No, I appreciate that. I am not saying
22 what your experience was, I am just telling you what the finding is, is that it is contrary to
23 what you thought, that Alstom shouldn't get schedule relief, whereas here the arbitrator
24 is saying ---

25 **COMMISSIONER HOURIGAN:** I think, counsel, you've made your
26 point. It is different than what he said. I am not sure what else the witness can help you
27 with, with respect to the arbitration award.

28 **MR. CHARLES POWELL:** No, I am going to move on, Mr.

1 Hourigan. I am going to move on, Commissioner. That's fine.

2 **COMMISSIONER HOURIGAN:** All right. Go ahead.

3 **MR. CHARLES POWELL:** But let's move away from the arbitration
4 award and talk about another interface that Thales had to integrate with, if we could,
5 and that is the interface between Thales and the SCADA system. I believe in your initial
6 interview with Commission counsel you talked about some of the issues you've had
7 with, I believe, Willowglen is the subcontractor for the SCADA system; is that right?

8 **MR. MICHAEL BURNS:** That is correct.

9 **MR. CHARLES POWELL:** And you have had some issues
10 understanding what Willowglen's messages are that are created with the passenger
11 information display system; is that correct?

12 **MR. MICHAEL BURNS:** That is correct.

13 **MR. CHARLES POWELL:** And just so I understand, I think what
14 you are saying is because of the lack of integration, you didn't get insight into how
15 Willowglen creates its messages so you could understand what the issue is, is that fair?

16 **MR. MICHAEL BURNS:** That's fair. And as I have already
17 testified today, that was the example I used where those were done somewhat in a --
18 not transparent or not integrated.

19 **MR. CHARLES POWELL:** Right. It's because of the lack of the
20 system integrator role that you are having these issues, is that fair?

21 **MR. MICHAEL BURNS:** That's a fair assessment.

22 **MR. CHARLES POWELL:** And those issues with the passenger
23 information display system, are they still occurring, to your knowledge, now on the
24 system?

25 **MR. MICHAEL BURNS:** Not that I am aware of, no.

26 **MR. CHARLES POWELL:** Okay. Now, with ---

27 **MR. MICHAEL BURNS:** I believe Willowglen has made some
28 changes that we are not aware of, but it seems to have resolved the delay issue that

1 was reported.

2 **MR. CHARLES POWELL:** Okay. Now with respect to Willowglen
3 and the SCADA system, the CBTC system interacts with it for the passenger display
4 system; is that correct?

5 **MR. MICHAEL BURNS:** Yes.

6 **MR. CHARLES POWELL:** And does it also interact with the
7 SCADA system for other elements? So, for instance, if there is an alarm from the
8 CBTC system on a vehicle, it passes that from the SCADA to the control centre, so that
9 everybody can see where that alarm is coming from; is that fair?

10 **MR. MICHAEL BURNS:** That's correct, yeah. SCADA is like a
11 message broker.

12 **MR. CHARLES POWELL:** Right, yeah, for the entire system.

13 **MR. MICHAEL BURNS:** For the entire system.

14 **MR. CHARLES POWELL:** Right. And I think what your evidence
15 was, and I think you just said it now, from your view, the SCADA system was
16 implemented late and a bit hastily; is that what you said?

17 **MR. MICHAEL BURNS:** Late. I didn't say hastily.

18 **MR. CHARLES POWELL:** Oh, okay. I thought I heard you say
19 hastily. But it came together late, the entire SCADA system, is that fair?

20 **MR. MICHAEL BURNS:** That's correct.

21 **MR. CHARLES POWELL:** And has Thales had any issues with
22 respect to alarm management in the SCADA system?

23 **MR. MICHAEL BURNS:** I am not aware of that.

24 **MR. CHARLES POWELL:** Okay. All right. All right. Those are
25 my questions, Mr. Burns. Thank you very much.

26 **MR. MICHAEL BURNS:** You're welcome.

27 **COMMISSIONER HOURIGAN:** And thank you, counsel, for that.

28 RTG EJV?

1 **MR. MICHAEL VRANTSIDIS:** Thank you, Mr. Commissioner.

2 Michael Vrantsidis for the EJV. We do not have any questions for this witness.

3 **COMMISSIONER HOURIGAN:** All right. Thank you. STV?

4 **MS. EILEEN CHURCH CARSON:** Eileen Church Carson for STV
5 Integrated. We do not have any questions for this witness.

6 **COMMISSIONER HOURIGAN:** All right. Thank you.

7 Transportation Action Canada?

8 **MR. DAVID JEANES:** Yes, thank you. David Jeanes, J-E-A-N-E-
9 S, at Transportation Action.

10 **--- CROSS-EXAMINATION BY MR. DAVID JEANES:**

11 **MR. DAVID JEANES:** Mr. Burns, I am not concerned with contract
12 management issues, I am more concerned with any effects that were actually observed
13 or experienced by the public. And, specifically, there's been a lot of discussion about
14 winter conditions. And I just wanted you to confirm that the issue of differential braking
15 and acceleration profiles, whether or not it was the operator who invoked it, would
16 reduce the risk of flat wheels under those conditions if the CBTC was operating with the
17 appropriate profile; is that correct?

18 **MR. MICHAEL BURNS:** I am not in a position to respond to that. I
19 don't have that background.

20 **MR. DAVID JEANES:** Okay. Yeah, the only reason I am asking
21 that question is there was a very large incident of flat wheels, much larger than the
22 major incident sorts of things, but the second question, emergency braking occurred in
23 a number of cases due to the intruder detection mechanism, and in some cases, it was
24 actually triggered by blowing snow, did Thales provide that intruder detection system?

25 **MR. MICHAEL BURNS:** No. No, that was -- it was initially in our
26 contract, but OLRTC rescinded that scope of work and took it inhouse.

27 **MR. DAVID JEANES:** Okay. With respect to door faults, you're
28 probably aware that trains were disabled, often for extended periods of time, until a

1 technician could intervene after what was really only a single -- a single door fault. The
2 system has now been modified so that doors release, and there are multiple attempts
3 before the train ends up being disabled.

4 Was that anything to do with the way that Thales interacted with the
5 door systems?

6 **MR. MICHAEL BURNS:** Not to my knowledge.

7 **MR. DAVID JEANES:** Okay. With regard to winter operation, I'm
8 wondering whether there was also an issue with selection of components. We know
9 that some of the track equipment, such as the balises between the rails which are used
10 to determine train position, and I believe that's part of the Thales system, that those
11 balises were damaged during winter snowploughing, for example, or because of
12 damaged equipment, and I'm wondering if that was potentially a Thales issue with
13 winter operation?

14 **MR. MICHAEL BURNS:** The trans -- I believe you're referring to
15 the transponder tags that are ---

16 **MR. DAVID JEANES:** That's ---

17 **MR. MICHAEL BURNS:** --- between ---

18 **MR. DAVID JEANES:** --- right.

19 **MR. MICHAEL BURNS:** --- the rails?

20 **MR. DAVID JEANES:** Yeah, they're between the rails. They
21 project quite high, almost up to the railhead?

22 **MR. MICHAEL BURNS:** Yes.

23 **MR. DAVID JEANES:** Unlike some other rail systems where a flat
24 transponder is used and perhaps is less exposed, but there were a number of cases
25 where mutual balises were damaged, including by snowploughing, and I'm just
26 wondering whether that was an issue with the selection of that type of equipment?

27 **MR. MICHAEL BURNS:** I don't believe there's an issue with the
28 selection of that equipment.

1 **MR. DAVID JEANES:** Okay. My time is limited, but I have one
2 more question, and that is you talked about non-completion of the maintenance yard
3 and the fact that the MSF is still not in automatic train operation mode and ---

4 **MR. MICHAEL BURNS:** Yes.

5 **MR. DAVID JEANES:** --- I'm wondering if that may have
6 contributed to problems which were encountered on certain days when they could not
7 launch a full complement of trains in the morning, either they launched too few trains or
8 sometimes the entire launch was delayed. Was the non-automation of the maintenance
9 yard perhaps a contributor to that?

10 **MR. MICHAEL BURNS:** A contributor only insofar as it takes more
11 time to manually bring out of the maintenance or the storage shed the trains for launch
12 and take them to a suitable platform to then be launched in the tunnel. But I think it's
13 more a function of the number of trains that had gone through the extensive
14 maintenance activities following the derailment incidents that didn't provide the requisite
15 number of trains to launch.

16 But to your -- specifically to your point, yes. They -- not having a
17 full automated yard does slow down the launch in the morning of trains.

18 **MR. DAVID JEANES:** Okay. I think I've used up my time, so thank
19 you very much, Mr. Burns.

20 **MR. MICHAEL BURNS:** Yeah, you're welcome.

21 **COMMISSIONER HOURIGAN:** All right. Thank you, sir.

22 Next is your own counsel, so they may have questions for you as
23 well.

24 Go ahead.

25 **MS. JENNIFER McALEER:** Thank you, Mr. Commissioner.

26 Jennifer McAleer, counsel for Thales. We have no questions for Mr. Burns.

27 **COMMISSIONER HOURIGAN:** All right.

28 Any re-examination?

1 **MR. FRASER HARLAND:** I have no further questions, Mr.
2 Commissioner. Thank you.

3 **COMMISSIONER HOURIGAN:** Mr. Burns, I want to thank you for
4 testifying today, for cooperating. It's very helpful, your testimony, and we've listened to
5 it carefully. So thank you for participating.

6 **MR. MICHAEL BURNS:** You're welcome.

7 **COMMISSIONER HOURIGAN:** And we're down -- and we're down
8 until tomorrow at 9:00.

9 **THE REGISTRAR:** Order, all rise. The hearing is now closed for
10 the day and we will resume tomorrow at 9:00 a.m.
11 --- Upon adjourning at 4:53 p.m.

12

13

C E R T I F I C A T I O N

14

15 I, Wendy Clements, a certified court reporter, hereby certify the foregoing pages to be
16 an accurate transcription of my notes/records to the best of my skill and ability, and I so
17 swear.

18

19 Je, Wendy Clements, une sténographe officiel, certifie que les pages ci-hautes sont une
20 transcription conforme de mes notes/enregistrements au meilleur de mes capacités, et
21 je le jure.

22

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24 Wendy Clements

25