Ottawa Light Rail Commission

Yves Declercq on Monday, May 2, 2022



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6	OTTAWA LIGHT RAIL COMMISSION
7	ALSTROM TRANSPORT CANADA - YVES DECLERCQ
8	MAY 2, 2022
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14	Held via Zoom Videoconferencing, with all
15	participants attending remotely, on the 2nd day of
16	May, 2022, 9:10 a.m. to 12:31 p.m.
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1	COMMISSION COUNSEL:
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3	Christine Mainville, Co-Lead Counsel Member
4	Fraser Harland, Litigation Counsel Member
5	
6	PARTICIPANTS:
7	Yves Declercq, Alstom Transport Canada Inc.
8	Charles Nieto, In-House Counsel, Alstom Transport
9	Canada Inc.
10	Michael Valo, Charles Powell, Lena Wang, Glaholt
11	Bowels LLP
12	
13	ALSO PRESENT:
14	Judith Caputo, Stenographer/Transcriptionist
15	Laila Butt, Virtual Technician
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1 --- Upon commencing at 9:10 a.m. 2. YVES DECLERCQ: AFFIRMED. 3 CHRISTINE MAINVILLE: Mr. Declercq, the 4 purpose of today's interview is to obtain your 5 evidence under oath or solemn declaration for use at 6 the Commission's Public Hearings. 7 This will be a collaborative interview 8 such that my co-counsel, Mr. Harland, may intervene to 9 ask certain questions. If time permits, your counsel 10 may also ask follow-up questions at the end of the 11 interview. 12 The interview is being transcribed, 13 and the Commission intends to enter the transcript 14 into evidence at the Commission's Public Hearings, 15 either at the hearings or by way of procedural order 16 before the hearing is commenced. 17 The transcript will be posted to the 18 Commission's public website, along with any 19 corrections made to it after it is entered into 20 evidence. 21 The transcript, along with any 22 corrections will be shared with the Commission's 23 participants and their counsel on a confidential basis 24 before being entered into evidence. 25 You will be given the opportunity to

1 review your transcript and correct any typos or other 2 errors before the transcript is shared with the 3 participants or entered into evidence. Any non-4 typographical corrections made will be appended to the 5 transcript. 6 Finally, pursuant to Section 33 (6) of 7 the Public Inquiries Act 2009: A witness at an 8 inquiry shall be deemed to have objected to answer any 9 question asked of him upon the ground that his answer 10 may tend to incriminate the witness, or may tend to 11 establish his liability to civil proceedings at the 12 instance of the Crown or of any person, and no answer 13 given by a witness at an inquiry shall be used or be 14 receivable in evidence against him in any trial or 15 other proceedings against him thereafter taking place, 16 other than a prosecution for perjury, in giving such 17 evidence. 18 As required by Section 33 (7) of 19 object to answer any question under Section 5 of the 20 Canada Evidence Act. 21 On those terms, we can proceed. 22 Could you start by describing your 23 involvement in Stage 1 of Ottawa's LRT project? 24 YVES DECLERCO: Well, during Stage 1, 25 for the LRT project, I was in charge of the bid, for

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1
    what was called suburban and doubledeck platform.
 2
    dealing with --
 3
                     [Reporter intervened for clarification
 4
                     purposes].
 5
                     YVES DECLERCQ: It was the platform
 6
    name suburban doubledeck. So at that time was in
 7
    charge, this platform was in charge of managing the
 8
    tram product --
                     [Reporter intervened for clarification
10
                      purposes].
11
                     YVES DECLERCO:
                                    Tram train product,
12
    which is an LRT if you prefer.
                                     It's tram train,
13
    because in fact the Ottawa vehicle is a high speed
14
           And "high speed" meaning able to run up to 100
    tram.
15
    kilometres per hour. So it's classified as in North
16
    America as LRV rather than the streetcar or tram.
17
    that time we have a specific division. So I was bid
18
    director for the LRV solution.
19
                     -- OFF THE RECORD DISCUSSION --
2.0
                     CHRISTINE MAINVILLE:
                                           And you were
21
    working for which company?
22
                     YVES DECLERCO: I was working for
23
    Alstom.
24
                     CHRISTINE MAINVILLE: And so you were
25
    bid director, I take it you had more than one project
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1 on the go? 2. YVES DECLERCQ: Yes. I was dealing 3 with supervising many bids ongoing. But as my initial 4 expertise was about this kind of LRV, I was more 5 involved in this one. 6 CHRISTINE MAINVILLE: Do vou recall 7 the timeframe of your involvement on the Ottawa bid? 8 YVES DECLERCO: Yes, I started to work 9 on the Ottawa bid in December 2011. 10 CHRISTINE MAINVILLE: And did your 11 involvement include subsequent contract negotiations? 12 YVES DECLERCO: Yes. 13 CHRISTINE MAINVILLE: Okay. And were 14 you involved in the industry consultations that would 15 have taken place prior to the bid period? 16 I really start in YVES DECLERCO: No. 17 the process in December 2011. 18 CHRISTINE MAINVILLE: Okay. Could you 19 tell us a bit about your prior experience and 20 background? 21 YVES DECLERCQ: Okay. So it's ten 22 So now I have more than 30 year of 23 experience within Alstom, in rolling stock business, 24 of all kinds. So ten years ago it was only 20 year. 25 So I've been mainly working test department and

1 engineering. And then project management, to most of 2 my career was in the project management. 3 CHRISTINE MAINVILLE: Are you an 4 engineer? 5 YVES DECLERCO: Yes. 6 CHRISTINE MAINVILLE: And so you've 7 been involved not just in procurement, but also 8 managing rolling stock projects? 9 YVES DECLERCO: My whole life, it's 10 like it changed during the process because as we are 11 developing a product for the North American market, I 12 moved, so I was committing all of product director for 13 this kind of North American LRV. 14 CHRISTINE MAINVILLE: Have you always 15 worked for Alstom in terms of this industry? 16 YVES DECLERCO: I've been working 17 CHRISTINE MAINVILLE: Okay. Could you 18 tell us, or give us an overview, perhaps, to start, of 19 how the procurement unfolded in this case? 20 YVES DECLERCQ: So we have developed a 21 global plan of entering the North America light rail 22 And therefore, so it was I think mid-2011 a 23 decision was made to authorize this market and 24 especially the turnkey market. So all the new system. 25 And for that, the turnkey department

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1
    was needing a light rail vehicle solution.
 2.
                     [Reporter intervened for clarification
 3
                     purposes ]
 4
                     YVES DECLERCO:
                                    And so we have decided
 5
    to develop a vehicle for North American market derived
 6
    from out tram train Citadis Dualis, in service since a
 7
    year in France.
 8
                     [Reporter intervened for clarification
 9
                     purposes].
10
                     YVES DECLERCQ: We have decided to
11
    develop a new product derived from the product so-
12
    called "Citadis Dualis", which entered in service in
13
    2010.
14
                     CHRISTINE MAINVILLE: And so what do
15
    you mean by "turnkey market"?
16
                     YVES DECLERCO: By "turnkey" I mean the
17
                    So including infrastructure globally,
    system market.
18
    what kind of -- the global, so infrastructure, rolling
19
    stocks, the global turnkey -- the sense of starting
20
    from the system market if you prefer.
21
                     [Reporter intervened for clarification
22
                    purposes]
23
                     YVES DECLERCQ: By "turnkey" I mean
24
    system market.
25
                     Meaning, for a new system like Ottawa,
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1 the infrastructure, the rolling stock, the signals. 2. CHRISTINE MAINVILLE: So you would bid 3 on the infrastructure as well. 4 YVES DECLERCO: Not myself. Me, I was 5 in the rolling stock department. But there was a 6 global strategy of the company to address this system 7 market. 8 And, therefore, to address the system 9 market, it was a need to have a new vehicle, which was 10 not in our portfolio. And we have launched the our 11 existing solution, like Citadis Dualis. 12 So this decision was made in the year 13 2011. 14 CHRISTINE MAINVILLE: And just so I'm 15 clear. Why do you say you needed to develop a new 16 vehicle? Was it to adapt to North American standards? 17 YVES DECLERCO: Yes. 18 CHRISTINE MAINVILLE: And so the 19 Citadis Dualis had been used in France for a year 20 prior to then? 21 YVES DECLERCO: In service, yes. Ιt 22 was a contract signing in 2007. 23 CHRISTINE MAINVILLE: And was it used 24 elsewhere in the world or just in France at that point 25 in time?

1 YVES DECLERCQ: We have kind of 2 version which was designed for the Turkish market in 3 Istanbul, a shuttle one, but using the same component. 4 CHRISTINE MAINVILLE: And to what 5 extent did you have to adapt the Citadis Dualis for 6 North American standards? How different were the 7 adaptations to it? 8 YVES DECLERCQ: So the adaptation was 9 mainly to take into account specific North American 10 standard, which covered many, many topics. 11 So we have the fire and safety 12 standard; we have the cab or the shell design; we have 13 height-leveling dynamics. There is some -- we have 14 some change on the -- lots of, maybe sometime it's 15 details, sometimes it's not details. 16 The standards were a way of 17 considering things, some time for the making vehicle 18 sizing, for instance, it's not exactly the same case, 19 very similar, but not exactly the same case to 20 consider. So we have to make some adaptation. 21 The fire and safety, because you have 22 to change the type of wire. The fire and safety and 23 flame requirement are different, we cannot choose 24 exactly the same chemical mix for the cable insulation 25 for the entire panel and so on so forth.

1	You have to consider different
2	assumption, like the track conditions, so there was
3	impact on most all systems.
4	[Reporter intervened for clarification
5	purposes].
6	YVES DECLERCQ: On most all systems.
7	CHRISTINE MAINVILLE: There was an
8	impact on most systems, right?
9	YVES DECLERCQ: Yeah.
10	CHRISTINE MAINVILLE: And what about
11	winterization. Was that a component that needed to be
12	addressed?
13	YVES DECLERCQ: Yes, sure. It was
14	also specific to, for this for this market, which
15	we had some experience, but not obviously on the LRV,
16	but on some other kind of rolling stock we had the
17	experience of winterization. And we applied the same
18	kind of recipe to the LRV.
19	Globally, we knew the recipe, we had
20	to put them together on the one new vehicle based on
21	the same component of the existing one.
22	CHRISTINE MAINVILLE: Okay. And what
23	experience did Alstom have on LRVs outside of North
24	America?
25	YVES DECLERCQ: At that point, there

1 are some experience based more than -- I don't 2 remember exactly the number, but more than 2,000 LRV 3 sold all over the world. 4 I think, let me check what we -- I 5 think we have shown that. When we did, it was already 6 more than 1,500 LRV sold. 7 CHRISTINE MAINVILLE: So Alstom was 8 very -- sorry. 9 YVES DECLERCO: Back in -- yes. 10 CHRISTINE MAINVILLE: Back in 2011 you 11 were going to say? 12 YVES DECLERCO: Yes. 13 CHRISTINE MAINVILLE: So Alstom had 14 significant experience with LRV or LRTs, just not in 15 North America? 16 YVES DECLERCO: Yes, right. 17 CHRISTINE MAINVILLE: I take it Alstom 18 had another presence in North America prior to 19 developing this market? 2.0 YVES DECLERCQ: Yes, we were present 21 already in North America. We were involved in an 22 overhauling of light rail, we have been building 23 METRO. I think, I don't remember in that time, we 24 were involved in the, many contract from Canada or 25 from U.S.A.

1 CHRISTINE MAINVILLE: And how 2 different is an LRT system from these other types of 3 vehicles that Alstom was producing already in Canada? 4 If you're able to -- if you were to simplify it, how 5 different is it? YVES DECLERCQ: It's fine, it's the 7 same gap of LRT versus -- we have many experience in 8 METRO in North America. And not LRV, only by a 9 swallowing of some contract, but no I can't tell like 10 that. 11 It is specific to the -- as the name 12 said, it's a light rail solution, with a low-floor 13 design in many case, because it is the global trend of 14 the market. Which use very specific skills and 15 expertise, because in fact you have to develop a very 16 compact system with a lot -- with a very high level of 17 integration to keep, for instance, low-floor 18 compatible with the bogie system, and the wheel 19 arrangement and the equipment on the roof. The term 20 of it, a quite light vehicle, we have to keep a can go 21 up to about 25, 27-tonne per axel in North America. 22 So it's another -- well, it's like precision mechanics 23 compared to maybe some locomotive or very heavy rail --24 it's very specific. 25 CHRISTINE MAINVILLE: And you

1 mentioned the bogies. Am I right that Alstom needed 2 design a new bogie for this system? 3 YVES DECLERCO: We had a bogie which 4 is called lxége in operation on tram train. 5 we have develop a new version of this bogie adapted to 6 the North American market. 7 So we devise a compatible with track 8 condition in U.S.A. And I need to insist on U.S.A., 9 because Ottawa vehicle as a contrary of -- now I'm 10 still in the business and working on other contract in 11 Ottawa vehicle is the sole one based on U.S. Canada. 12 standard, in Canada. 13 Ottawa is the CHRISTINE MAINVILLE: 14 only one based on U.S. standards? 15 YVES DECLERCO: U.S. standard in North 16 America. 17 CHRISTINE MAINVILLE: Do you know why 18 that is? 19 YVES DECLERCO: No. But all the other 20 system in service that are from Alstom now, and from 21 Bombardier are based on tram design with European 22 And then following European standards, standard. 23 closer to a usual solution on both Bombardier and 24 Alstom. And here in Ottawa, it was specified like 25 U.S. rails, based on the APTA procurement guideline,

1 so referring to all U.S. standards and not European 2 standard. Which is a unique case in Canada. 3 CHRISTINE MAINVILLE: And you don't 4 know where that originated from, or what would 5 be the reason for that? Even if you were to speculate 6 about why that would be. 7 YVES DECLERCO: I think they were 8 looking for the high speed 100-KPH tram. And they are 9 completing the U.S. LRV standard solution described by 10 APTA, as a reference; that could be one explanation. 11 Another explanation is that --12 CHRISTINE MAINVILLE: Sorry, you just 13 described by who as --14 YVES DECLERCO: The APTA. 15 CHRISTINE MAINVILLE: The APTA? 16 YVES DECLERCO: Yes. 17 MICHAEL VALO: A-P-T-A. 18 CHRISTINE MAINVILLE: Okay, yes, 19 A-P-T-A, APTA. 20 YVES DECLERCQ: I don't remember, I 21 missed the "P". 22 CHRISTINE MAINVILLE: And another 23 possibility is... 24 YVES DECLERCO: There is another 25 possibility that this call for tender in Ottawa was a

1 second one. 2. So there was another -- we know that 3 another one was launched, another system procurement 4 was launched a few years before, and it was cancelled 5 at the last minute. 6 So we knew that Siemens was awarded 7 and make your claim against the City for that. 8 the specification was pretty, like -- was based 9 clearly on the Siemens solution. Because the APTA 10 Guideline, is more or less derived from the Siemens 11 solution, which is very popular in the U.S.A. 12 CHRISTINE MAINVILLE: Got it. 13 Siemens -- would you say the specifications ultimately 14 have favoured Siemens or not necessarily? 15 YVES DECLERCQ: At the beginning, yes. 16 But globally, as the specification was for a very 17 high-capacity system. In fact, Siemens was not able 18 to propose an -- probably not able to propose an 19 optimized solution as the RTG finally proposed. 2.0 CHRISTINE MAINVILLE: Were you going 21 to add something? 22 YVES DECLERCO: No. Because in fact, 23 with us today in Ottawa, we're operating at two 24 trainset, coupled together. If it is a standard 25 Siemens solution, you would need four Siemens trainset

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1
    coupled together.
                     [Reporter intervened for clarification
 2.
 3
                     purposes].
 4
                     YVES DECLERCQ:
                                    Where today in
 5
    operation, we have two vehicle coupled together in
 6
    operation to ensure the service. To do the same with
    the Siemens vehicle, you need four units coupled
 7
 8
    together and longer platform. Because you are losing
 9
    a lot of space with intermediate cabs, so you use
10
    less, of course.
11
                       CHRISTINE MAINVILLE: And you said
12
    this second procurement was last minute. Can you
13
    explain that a bit more?
14
                     YVES DECLERCQ: Last minute, what do
15
    you mean?
16
                                          I think you said
                     CHRISTINE MAINVILLE:
17
    because they had had the other procurement a few years
18
    before that Siemens won, that got cancelled.
19
                     And then I thought I heard you say
20
    that -- so this one was last-minute, maybe I --
21
                    YVES DECLERCQ: No, no, I didn't say
22
                 I just say that it was maybe they have
    that sorry.
23
    kept the rolling stock specification at that time was
24
    back in 2007 or 2008, I don't remember exactly.
25
                     FRASER HARLAND:
                                      Just to clarify, I
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1 believe he said it was cancelled at the last minute, 2 not that the --3 CHRISTINE MAINVILLE: Yes, sorry. 4 Thank you. 5 YVES DECLERCO: Siemens was awarded, 6 the contract was cancelled and Siemens made a claim 7 against the City. 8 CHRISTINE MAINVILLE: Got it, yes. And 9 in fact, how would you describe the specifications in 10 terms of level of prescriptiveness for the rolling 11 stock? 12 YVES DECLERCO: I think it was a - it 13 was a pretty operation-based specification. So less 14 prescriptive than some can find on the U.S. market 15 regarding the detail design of the vehicle. But very 16 accurate regarding the transportation capability, 17 ridership and so on so forth. 18 Plus, the reference to the APTA 19 procurement guideline, which constitute a strict frame 20 for all the standard to be applied, all the method to 21 validate the design and similar. 22 CHRISTINE MAINVILLE: And so I take it 23 Alstom was new to these American standards? 24 YVES DECLERCO: Yes. 25 And would there CHRISTINE MAINVILLE:

1 have been any ability to suggest that that be changed 2 to the European standards? 3 YVES DECLERCO: At the point we came 4 in the procurement, no. It was not possible for us. 5 CHRISTINE MAINVILLE: So was it raised 6 as -- first of all, was it a concern for Alstom or at 7 least it was an added level of risk, I take it? 8 YVES DECLERCQ: Globally our plan was 9 to address a U.S. market, mainly, and Ottawa was the 10 first opportunity where we could propose this new 11 generation of vehicle. 12 So we were not so much disturbed by 13 It was part of plan to have this kind of 14 vehicle in our portfolio. 15 CHRISTINE MAINVILLE: Right, okay. 16 Would the City have been aware that this was -- let me 17 start back. 18 Did Alstom have direct communications 19 or meetings with the City about the rolling stock? 20 YVES DECLERCQ: So let me tell the 21 story of the tender first. 22 CHRISTINE MAINVILLE: Okav. 23 YVES DECLERCO: So in the first place, 24 and before I start to work on this business, I seek 25 Alstom to start to get qualified as a system supplier.

1 There was six system supplier trying to 2 be qualified and for some reason --3 -- Reporter's Note: (Experienced 4 virtual connection difficulties). 5 CHRISTINE MAINVILLE: Let's pause. 6 Let's see if it works again, but you'll have to repeat 7 your answer because you were frozen. 8 YVES DECLERCQ: Okay. So the Alstom 9 tried to get qualified as a member of the system 10 I think it was later in the process in consortium. 11 CHRISTINE MAINVILLE: What was the 12 number of system consortium? 13 YVES DECLERCO: I don't know. I was 14 not directly involved in that part. 15 CHRISTINE MAINVILLE: But do you mean 16 by that, that it was to procure more than just the 17 rolling stock? 18 YVES DECLERCO: We were in competition 19 as with RTG, for instance, to -- we tried to get 20 qualified to be in competition with RTG, and the other 21 groups that were finally qualified. 22 So I know that out of six groups, only 23 three were qualified to prepare the bids. So it was 24 RTG, one group; I don't remember the name of the 25 One group was led by Bouygues, another group group.

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1
    with the competition was -- I don't know exactly the
 2
    organization, but Bombardier was part of this.
 3
                     So at this point, Alstom was out of
 4
           But for the two -- so there was three group
    game.
 5
    qualified preparing the system tender. And we knew
 6
    that two of this group didn't have rolling stock
 7
             With RTG and the group led by Bouyques, I
 8
    think it was Vinci.
                    [Reporter intervened for clarification
10
                     purposes].
11
                    YVES DECLERCO: Vinci.
12
                    CHRISTINE MAINVILLE:
                                          I think you're
13
    saying "tender", right? I was hearing, "thunder" but
14
    you're talking about "tender".
15
                    YVES DECLERCO: Tender or bid.
16
                    CHRISTINE MAINVILLE:
                                          Yeah, okay.
17
                    YVES DECLERCO: So at that point when I
18
    came into the game, it was to convince whether RTG or
19
    Bouyques to have Alstom on board as rolling stock
20
    supply.
2.1
                     [Reporter intervened for clarification
22
                     purposes].
23
                     YVES DECLERCQ: Bouygues,
24
    B-O-U-Y-G-U-E-S.
25
                     CHRISTINE MAINVILLE:
                                           At that point,
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1 are you hoping to provide both the rolling stock and 2 the signalling system, or only the rolling stock? 3 YVES DECLERCO: We came only to 4 provide rolling stock and the maintenance of the 5 rolling stock. At that point for RTG, was clear that 6 Thales was already selected as a signalling supplier. And regarding Bouyques, I don't remember. I don't 7 8 remember if a signalling supplier was already 9 selected. 10 CHRISTINE MAINVILLE: Do you have any 11 idea or any understanding of why RTG selected Thales 12 as the signalling system supplier? 13 YVES DECLERCO: I understand they 14 select Thales maybe to get Canadian content. 15 And is it fair CHRISTINE MAINVILLE: 16 to say that Alstom would have preferred to use its own 17 signalling system? 18 This was not our YVES DECLERCO: 19 target. Our target was more to introduce the vehicle 20 on the market. 21 CHRISTINE MAINVILLE: Okay. 22 YVES DECLERCO: It was not strategic 23 to have our signalling system on the train on that. 24 CHRISTINE MAINVILLE: So from a 25 technical perspective, leaving aside any commercial or

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1
    financial considerations, does Alstom -- just from a
 2
    technical perspective -- not prefer using its own
 3
    signalling system to integrate into its rolling stock?
 4
                     YVES DECLERCO:
                                     It's always better to
 5
    use your own signalling system, but we are used to work
 6
    with partners signalling system all over the world.
 7
                     CHRISTINE MAINVILLE:
                                           And at that
 8
    point, had Alstom's rolling stock been integrated with
 9
    Thales's system?
10
                     YVES DECLERCQ: So first of all, let
11
    me continue the story.
12
                     So we are back in -- we are in we try
13
    to meet the two group, accessible groups to promote
14
    our vehicle solution. So this section, and we have
15
    some discussion. We prepare a preliminary tenders,
16
    preliminary pricing for the two group, try to promote
17
    a solution, asking questions and so on.
18
                     It was all that in packet, we are not
19
    really on board the tender until March 2012, when both
20
    group has told us they didn't -- they had not retained
21
    the Alstom solution as a vehicle.
22
                     So Bouyques decided to go with Siemens
23
    as rolling stock supplier, and RTG decided to go with
24
    CAF, the Spanish buyer as rolling stock supplier.
25
                     And there was a milestone in April
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1 2012 to have specific customer meeting with the City, I think it was called DPM7 to present the rolling 3 stock to the City. So at that point, we were out of 4 the race and disqualified. 5 During all that time, so from December 6 to March '12, we never met Thales. 7 CHRISTINE MAINVILLE: And do Okay. 8 you have any understanding of why Alstom was not 9 selected by either of these bidders? 10 I think they choose YVES DECLERCO: 11 the Siemens, which has much more references in the 12 North American market than us. And I think CAF was 13 selected because probably good connection with 14 Dragados, which was inside the consortium of RTG. 15 CHRISTINE MAINVILLE: And so what 16 happens then after CAF is selected by RTG? 17 YVES DECLERCO: So it happened that at 18 the end of June, the management of RTG and SNC-Lavalin 19 came to our office in New York, meeting Alstom 20 Transport Vice-President and explaining that CAF has 21 been finally disqualified by the City of Ottawa and 22 that RTG was out of any rolling stock solution. 23 The submittal was scheduled in 24 September of '12 around June, two months, roughly, to 25 prepare a full bid. So RTG ask us to come back on

1 board and prepare a meeting. We had to meet with the 2 City to present a alternative solution and try to get 3 accepted and qualified by the City. 4 CHRISTINE MAINVILLE: Did you have any 5 understanding of why CAF had been disgualified? 6 YVES DECLERCO: No. 7 CHRISTINE MAINVILLE: When RTG approached Alstom after CAF had been disqualified, did 8 9 you have any additional understanding of what the City 10 was looking for that was not already reflected in the 11 original requirements or specifications? 12 YVES DECLERCO: Not from the City. 13 But we understood what SNC and RTG was looking for. 14 Because we start to reopen the file at beginning of 15 In the meantime, we are not active, because as July. 16 it was part of a plan to develop the solution for the 17 U.S. market, our maturity of our solution was 18 increasing, and we have form of better element to share 19 with RTG and the City. 20 But the condition of the City was very 21 clear. They wanted to have initially a 45 long 22 vehicle. So it's very important to understand. 23 wanted a vehicle which was compatible with a platform 24 of 90-metre, so that's why they were considering 45-25 metre for one vehicle.

1 And then coupled together able to 2 handle the ridership required by the City. 3 So it seems that the strategy at that 4 point was to propose a directive solution compared to 5 what Siemens can do, of a long consist, which is not 6 existing. Our layout is the first one of that kind in 7 North America. 8 So a long consist, because the Siemens 9 vehicle was talking about, is maximum 30-metre long. 10 So probably the whole model of the 11 old user competitors with Siemens, and even with CAF 12 at this point, CAF has a similar solution in service 13 in Houston of 30-metre as well. So probably the whole 14 model for all the other competitor was to operate for 15 your needs of 30-metre, you need a platform of 120-16 metre, while the RTG idea was to have longer vehicle 17 with more bogie, with more -- very specific solution, 18 and able to handle a shorter platform. 19 Because when you have four-unit 20 coupled together, in the middle you have empty cabin 21 from the seam to its lengths over the platform with no 22 added value. 23 CHRISTINE MAINVILLE: Right. 24 you're adding to the capacity by having fewer 25 vehicles.

1	YVES DECLERCQ: Yes.
2	CHRISTINE MAINVILLE: And CAF, did I
3	understand, they didn't have a 45-metre vehicle at
4	that point?
5	YVES DECLERCQ: We have no evidence of
6	that. But probably at this stage, it could have been
7	a blocking factor.
8	CHRISTINE MAINVILLE: Okay. And you
9	said
10	YVES DECLERCQ: But it is not a reason,
11	because maybe it's going against the strategy of RTG,
12	but going against the strategy of the City.
13	So I don't know what happens in that.
14	The information we got is that the City decided to
15	disqualify CAF.
16	CHRISTINE MAINVILLE: Okay. And when
17	you said it was the first first of its kind, I
18	think in North America, you mean a 45-metre long
19	vehicle.
20	YVES DECLERCQ: Yes. Formal unified
21	bogie like we have proposed since. It's the longest
22	LRV vehicle in operation in North America.
23	CHRISTINE MAINVILLE: Was that new for
24	Alstom as well, or only new in North America?
25	YVES DECLERCQ: No, it was very

1 similar. A little bit longer, than the Citadis Dualis I was talking earlier, but the same configuration, 3 same number of bogie and same number of modules. 4 And globally, the configuration we 5 have propose, we met the City mid-July and we propose 6 vehicle architecture which is exactly they want, which 7 in operation now. There is no difference. 8 CHRISTINE MAINVILLE: Do you recall 9 who that meeting or those meetings were with, at the 10 City? 11 YVES DECLERCO: It was in a hotel in 12 Ottawa with the City and consultants online. 13 CHRISTINE MAINVILLE: The City and the 14 consultants were online? 15 YVES DECLERCO: Yeah. 16 CHRISTINE MAINVILLE: They were not in 17 person, even though you're in Ottawa? 18 YVES DECLERCO: We were in Ottawa, 19 with city member. And I think it was 18th of July, 20 2012. 21 CHRISTINE MAINVILLE: Do you recall 22 who exactly from the City would have been in 23 attendance; do you have any names? 24 YVES DECLERCO: 18 of July, yes, No. 25 I confirm.

1 CHRISTINE MAINVILLE: Do you know 2 where the consultants were from? Which entities, what 3 companies? 4 YVES DECLERCO: I think it was STV. 5 CHRISTINE MAINVILLE: And can you tell 6 us about that meeting and what was discussed there? 7 YVES DECLERCQ: By the way, it was the kind of recall of the famous DPM7. We have to go --8 9 back in this process which would have been finalized 10 of Alstom of capability of vehicle solution, the 11 carrying over from existing solution, and where the 12 architecture is coming from, and we were addressing --13 yes, so it would have shown some capabilities, and we 14 handle Canadian content, we handle the --15 [Reporter intervened for clarification 16 purposes]. 17 YVES DECLERCO: So the meeting agenda 18 was an introduction of the team. And as second topic 19 was about Alstom capabilities, the reference. 2.0 And the vehicle solution, and the 21 service-proven reference of this vehicle. They zoom 22 on the preliminary design of the vehicle; they zoom on 23 the Canadian content; zoom on the disable 24 accessibility and compatibility with APTA standard. 25 Our experience with integration of CBTC from other

1 companies. And then some discussion. 2. CHRISTINE MAINVILLE: Okay. And what 3 would the City have understood about -- based on your 4 meeting there, or other information, convey about what 5 was new for Alstom on this project? 6 In terms of the U.S. standards, in 7 terms of the adaptations required to the Citadis 8 Dualis and so forth. 9 YVES DECLERCO: It's difficult to quess 10 what they have understood. 11 CHRISTINE MAINVILLE: What was 12 conveyed, maybe I should have said. 13 YVES DECLERCO: We have related, for 14 sure it was clear that this vehicle does not exist 15 yet, but is made of service-proven components already 16 in use in many other places. 17 And globally, we are gathering a lot 18 data, gathering the ability to run the operation of 19 profile, which is not usual for a light rail. 20 Winterize under the North American 21 standard, because part of the part you are using are 22 meeting the American standard already. And we have 23 the capability and experience to put that altogether 24 to meet the Canadian content, we have the reference. 25 So it was a global overview.

1 But we have a clear drawing showing 2 this product is derived from existing one. At no 3 point we have said that the vehicle is already 4 existing. 5 CHRISTINE MAINVILLE: And you said the 6 speed is not usual for light rail, the maximum speed. 7 What is more typical? YVES DECLERCO: 80-kilometre per hour 9 or 70 or 80, which make a difference within the 10 standard regarding crash energy management. 11 of sizing of the vehicle are different. All the other 12 LRV in Canada are running at maximum 70-80 kilometre 13 per hour. Only the Ottawa one is able to run up to 14 100-kilometre per hour. 15 CHRISTINE MAINVILLE: Based on the 16 City's requirements, would some other type of train 17 system have been more advisable for what the City was 18 looking for? Did it make sense for them to go with 19 light rail? 20 YVES DECLERCQ: If we consider the 21 PPHPD so passenger per hour per direction, usually LRV 22 is able to under maximum 10,000 passenger per hour per 23 direction. It's usual maximum standard. PPHPD, so 24 it's clearly the METRO operation profile. Which we 25 reinforce by the fact they are using the CBTC in

1 automatic driving mode, which is really a METRO. when you see the vehicle in operation, it's 2 3 impressive, it's starting like a bullet, like a METRO. 4 CHRISTINE MAINVILLE: So should it not 5 have been a METRO? 6 YVES DECLERCO: It's a low-floor 7 I think what we have understood is the intent 8 of the City, with the extension of Phase 2 or Phase 3, 9 needs to go to a more urban, or city or integration 10 and only the automatic mode would be using the 11 downtown and the centre of Phase 1. So they wanted to 12 have these kinds of mix, and probably also the lower, 13 low-floor LRV is bringing optimization for the tunnel, 14 size of the tunnel compared to a METRO, high-floor 15 METRO. 16 CHRISTINE MAINVILLE: Based on the 17 later extension plans, am I understanding that a 18 classic METRO would not necessarily have been 19 suitable? 20 YVES DECLERCQ: What they say to us, 21 in fact, we didn't question. We have a specification 22 for low-floor vehicle. We address it with a low-floor 23 vehicle. But, yes, from some discussion we have later 24 on, they said they will use this low-floor capability 25 later at the end of the line to do some mixed traffic

1 and all that kinds of things. 2. CHRISTINE MAINVILLE: But would it 3 have been possible to meet their various requirements 4 with a METRO? 5 YVES DECLERCO: Probably not. 6 METRO is -- you are mandatory with a separated way, 7 with high-floor platforms, were very specific. 8 So globally, the infrastructure need 9 for METRO is much higher. Especially in this plan, 10 which is more or less to follow the former of this 11 operation. 12 CHRISTINE MAINVILLE: Riaht. So to 13 meet all of their needs or requirements, it made sense 14 to go with a low-floor LRV, but it required various 15 adaptations that --16 YVES DECLERCO: We are using the LRV 17 solution at the extreme. Probably, it's part of the 18 reason why we are discussing today. 19 Explain that to me. CHRISTINE MAINVILLE: 2.0 YVES DECLERCQ: That we are at the 21 edge of what LRV is able to do. 22 CHRISTINE MAINVILLE: It's very 23 advanced technology? 24 YVES DECLERCQ: It's not advanced 25 technology. Just we'll prevail on issue, we have

1 faced and we are still are facing today, and then find Have no concern from that. We are really solution. 3 working to fix all the issue. 4 Just the time to set up, address and 5 find the right solution, which is longer, because user 6 failure rate, it is not a standard we use. 7 CHRISTINE MAINVILLE: It's not a 8 standard use, yeah, LRV. And what are the implications of here 10 carrying more than double the number of passengers? 11 YVES DECLERCO: I think the main impact 12 is on the -- is linked to the need to have a CBTC to 13 operate that vehicle, and to drive in automatic 14 modes, which it's related to the headway you are 15 Because normally, at the end, the headway facing. 16 must be reduced to one-minute thirty seconds. 17 Now I think it's about three minutes, 18 something like that. But you need driving a, operate 19 automatic operations, where you need a CBTC from the 20 desk of the supervisor to manage the traffic. 21 That's one part, that the speeds or 22 the acceleration level is very high to handle, also 23 this high capacity. And that's also why the vehicle 24 are longer, probably. But it's not the longest LRV we 25 have ever built, but at that, this kind of operation

1 it is. 2. CHRISTINE MAINVILLE: This kind of 3 operation, what? 4 YVES DECLERCO: It is the longest LRV 5 we have in operation with such profile. 6 CHRISTINE MAINVILLE: And so did the 7 City, was it made clear to the City that this was 8 pushing the limits of what an LRV can do, that it was 9 at the edge of ... 10 YVES DECLERCQ: No, no. But once 11 again, during all the bid process, and we met the City 12 once, it was 18th of July, that's it. After that, all 13 we -- the job was directed by RTG people, with RTG 14 people. 15 CHRISTINE MAINVILLE: Normally would 16 there have been more opportunity to exchange --17 YVES DECLERCO: I quess in normal 18 process, I think there was several -- probably several 19 rolling stock meeting which was organized. But as we 20 came at the last minute, it didn't happen. 21 And the point is that we are not 22 coming to infeasibility, all the issue we are facing 23 today, is also a lack of system integration, 24 preparation, like alignment with Thales for sure on 25 the designs. There was many topics happening during

1 the project execution that explain why in fact, when we start the operation, we were not ready. 2 3 CHRISTINE MAINVILLE: And were you 4 there during the -- were you involved in this, 5 following the procurement period? 6 YVES DECLERCO: I was involved at the 7 beginning at various level and recently less 8 involved -- I was involved at the beginning of the 9 project execution, and my involvement has decrease 10 into time. 11 CHRISTINE MAINVILLE: Involvement has 12 decreased. 13 Okay, I'll go over some of the things 14 you just mentioned, but I just want to be clear on a 15 couple of things. 16 First of all, were there any discussions 17 with Thales around that period of time? Or when would 18 you first have exchanged... 19 YVES DECLERCO: I think there was one 20 meeting with Thales in August 2012, one technical 21 And it was obvious that Thales was not ready meeting. 22 with a solution to work with us. 23 CHRISTINE MAINVILLE: It didn't have 24 its solution ready? 25 YVES DECLERCQ: No.

1 In what way? CHRISTINE MAINVILLE: 2. YVES DECLERCQ: It was not designed. 3 It was brand new, not designed at all. 4 CHRISTINE MAINVILLE: So you didn't 5 understand their system to be a standard one that it 6 used? 7 YVES DECLERCQ: For me, it was not the 8 standard one, it was a new design for the future 9 market, but a new design. It's an optimization, I 10 think there were -- the plan was to use only one main 11 computer, per LRV, while usually you have one computer 12 But the design was not ready yet at all. per cabin. 13 CHRISTINE MAINVILLE: Okay. What was 14 said about how that was going to be developed? 15 YVES DECLERCO: We didn't have detail 16 all along, at least the part of the project have 17 follow. It was clear that Thales was not tied to the 18 same schedule than us. And probably almost no further 19 or not on the main contract. 20 So that's why we have imposed to -- we 21 are very -- the main risk of this project was about 22 interfaces, and that's why we have introduce in the 23 subcontract for the rolling stock, a lot of detail 24 regarding interface. And we put preliminary document, 25 or we set very strict dates regarding the interface.

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1
    It was I think we signed February '13 and there was
 2
    many great milestone in April '13 to freeze all the
 3
    interface.
 4
                     CHRISTINE MAINVILLE: So you made sure
 5
    that in Alstom's subcontract, there were clear dates
 6
    about when the interfaces would be completed --
 7
                    YVES DECLERCO: Yes.
 8
                     CHRISTINE MAINVILLE: -- including
 9
                 Was that for a final integration --
    April 2013.
10
                     YVES DECLERCO: Yes.
11
                     CHRISTINE MAINVILLE: -- or interface
12
    document, ICD from Thales?
13
                     YVES DECLERCO:
                                    So in fact, Thales
14
    didn't produce anything. So we already in the
15
    subcontract, we introduce our own understanding of the
16
    interface document, based on their experience because
17
    we are used to, to work with other signalling
18
    supplier, like in Paris, with Siemens or other ones.
19
    So we are already prepare a very detailed document
20
    because we know more or less.
21
                    So this was already embedded in the
22
    specification, and this was, I think the same document
23
    was used in the April '13 and Thales didn't even try
24
    to meet this date.
25
                                           Was it realistic
                     CHRISTINE MAINVILLE:
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1 to expect that that would be ready by April 2013 given 2 that they didn't have a design when you met in August 3 2012? 4 YVES DECLERCO: It was not clear. Nο 5 one told us it was a new design, but we understand it 6 with the time, in fact. We subcontract, as 7 subcontract, we only supposed to use service-proven 8 solutions. 9 Okay. CHRISTINE MAINVILLE: So it's 10 not as though Alstom understood in the August 2012 11 meeting, that Thales's design was new. It was 12 something you came to understand? 13 YVES DECLERCO: Yes. It was probably 14 the first claim topic between Alstom and RTG. 15 The first what? CHRISTINE MAINVILLE: 16 YVES DECLERCO: Claim topic between 17 Alstom and RTG or OLRT-C. 18 CHRISTINE MAINVILLE: And would you 19 normally have had, or expected to have more meetings 20 with Thales than you did early on in the process --21 YVES DECLERCQ: In the preparation of 22 the bid, yes. But clearly they were not ready to --23 they have no solutions, or they have nothing to tell. 24 CHRISTINE MAINVILLE: You think that's 25 why there were fewer meetings?

1 YVES DECLERCQ: Also, we didn't have so 2 You know, we were asked to come back end much time. 3 of June, so the time to build the whole file we were 4 preparing a new vehicle solution, meeting more or less 5 what RTG proposed to us. Because we have adapted the 6 lay out to meet the expectation of RTG. 7 They ask for 45-metre, we come to the 8 48-metre solution that meet on their requirement. 9 did also requesting for that time to be, so RTG knows 10 exactly what you have to do. Which is the price of the 11 product we are proposing. 12 We prepare our meeting with the 13 customer, or we certainly, it was already 18th of 14 July. After that, we have just one month to refine 15 and discuss some detail assumption. 16 And globally, we made a formal offer 17 to RTG beginning of September, and the global system 18 submittal was made end of September. So we have only 19 the time to do one technical meeting with Thales in 20 August. 21 CHRISTINE MAINVILLE: Was there less 22 integration planning than you would normally have 23 expected? 24 YVES DECLERCO: That's why we have 25 imposed in the contract negotiation, an earlier date

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1
    for the interface phase. Because it was clear that it
 2
    would be a big race for all the project. We need all
 3
    the Thales interface to freeze it for the technical
 4
    scheme, and all the detail arrangement, even the
 5
    physical location of the -- and size of the Thales
 6
    cubicle were unknown at the signature of the contract.
 7
                    CHRISTINE MAINVILLE:
                                           Was there not an
 8
    opportunity to have more meetings with Thales?
 9
                    YVES DECLERCO: During the project
10
    execution, after February '13, yes, we have some
11
    meeting, of course, because we have to prepare a first
12
    interface design with Thales. But not to a point to
13
    say, okay, the interface are frozen.
14
                    CHRISTINE MAINVILLE: The interface
15
    are what?
16
                    YVES DECLERCO: Are frozen.
17
                    CHRISTINE MAINVILLE:
                                           Are frozen.
18
                     So am I right that -- well, were there
19
    meetings during the contract negotiations?
20
                    YVES DECLERCQ: No, there was -- I
21
    must know a meeting with Thales. I think maybe at
22
    another meeting during the -- or just before the
23
    contract negotiations were late 2012 or beginning
24
    2013. But it went very fast. We were surprised by
25
    the speed to get to a financial close and have the
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1	contract start
2	CHRISTINE MAINVILLE: And to have what?
3	YVES DECLERCQ: The contract started.
4	CHRISTINE MAINVILLE: Started. And so
5	is that what prevented meetings with Thales during
6	that contractual phase or
7	YVES DECLERCQ: Once again, I think it
8	was useless. Because even in April, when we have set
9	clear date, Thales was not ready, did not answer, and
10	we were obliged to propose our document as a reference.
11	CHRISTINE MAINVILLE: You say
12	"useless". But for instance, was there an opportunity
13	to discuss with Thales when they would be able to
14	produce a frozen ICD?
15	YVES DECLERCQ: I don't remember all
16	the detail of such discussion. But I think at that
17	point, OLRT-C did not do a job of system integrator
18	and try to mitigate the risk. They just put us
19	together and we just see that Thales was not responsive.
20	CHRISTINE MAINVILLE: And so I guess
21	what I'm asking is, what would you have if OLRT-C
22	had properly performed the systems integration piece,
23	how would that have been reflected in the contractual
24	phase, the contractual negotiation phase?
25	YVES DECLERCQ: In contractual

1 negotiation phase -- I think it's not the contractual 2 negotiation phase. 3 You should be sure that our statement 4 was clear that we need to have a frozen interface by 5 April '13. We signed the contract -- I mean, we did 6 negotiate, we signed the contract. Anyway OLRT-C did 7 nothing to get that milestone achieved. 8 CHRISTINE MAINVILLE: The first 9 finalized ICD milestone? 10 Sorry. For the record you have to 11 say, "yes". 12 YVES DECLERCO: Yes. 13 CHRISTINE MAINVILLE: Are you aware 14 of -- let me rephrase. 15 Who were the contract negotiations 16 with on OLRT-C's end? 17 YVES DECLERCQ: I don't remember all 18 I think people actually left -- it was many the name. 19 SNC-Lavalin on one side, but I don't recall all their 20 names. 21 CHRISTINE MAINVILLE: What insight did 22 Alstom have into Thales's negotiations? 23 YVES DECLERCO: Nothing. 24 CHRISTINE MAINVILLE: Are you aware of 25 whether the same people were involved in both

1 negotiations? 2. YVES DECLERCQ: My understanding is 3 that there was no negotiation with Thales. 4 signed the contract, not far down from the main system 5 contract with its own condition, and that nothing was 6 negotiable with them. 7 It was done. It was a fact Thales 8 would provide the CBTC, and that was it. There was no 9 question and we didn't see any -- it was totally 10 dissymmetrical, I would say, the condition made to 11 Thales, compared to the one made to us. 12 CHRISTINE MAINVILLE: Yes, you mean 13 there was no alignment between --14 YVES DECLERCO: No. 15 CHRISTINE MAINVILLE: -- Alstom's 16 contract and what appeared --17 YVES DECLERCO: We tried to put that in 18 the interface, but I don't know whether the Thales 19 contract, but I'm pretty sure it was already signed, 20 already committed. Even we understood that the 21 payment was done, it was not aligned. It was signed 22 before. 23 CHRISTINE MAINVILLE: Your 24 understanding is Thales's contract was signed before? 25 YVES DECLERCQ: Yeah.

1 CHRISTINE MAINVILLE: And that their 2 requirements were merely what flowed directly from the 3 Project Agreement, is that what you're --4 YVES DECLERCO: For us, yes. 5 Thales, I'm not sure. Because it changed a lot. 6 Also, you have to understand that the City has 7 modified a lot the specification in the last phase. 8 So maybe some condition was not dated to Thales, I 9 don't know. 10 FRASER HARLAND: I just -- sorry, I 11 just want to make sure I understand. 12 So to your understanding, are you 13 saying that OLRT-C negotiated Thales's subcontract 14 with its different schedule, and it was already 15 signed. And then they came to you and you proposed a 16 different schedule, and they just signed that 17 contract as well, knowing that the two were not 18 aligned; is that what you think happened? 19 YVES DECLERCQ: Yes, I think so. 20 have no evidence, because I don't know that Thales 21 contract, but the way they act after that, for me, 22 it's the only explanation. 23 CHRISTINE MAINVILLE: Did you 24 understand at the time you were negotiating the 25 contract with Alstom and OLRT-C?

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1
                     YVES DECLERCQ: I understand that it
 2
    was impossible to talk with Thales to have alignment
 3
    with them, and they were not -- we spent a week in the
 4
    building in Toronto to negotiate the contract, never
 5
    seen Thales people.
 6
                     It was not possible to get them, and
 7
    that is why it is Alstom document which is used as a
 8
    reference in the rolling stock subcontract for the
 9
    ICD.
10
                     CHRISTINE MAINVILLE:
                                           When you say
11
    "Was not possible to get them"...
12
                    YVES DECLERCO: I don't know.
13
    context, I understand the Thales contract was done and
14
    it was not possible to negotiate. The only way to
15
    have lever on them is to clarify, to propose on the
16
    ICD document, and to set a stronger milestone for the
17
    ICD freeze.
18
                     CHRISTINE MAINVILLE:
                                            I quess what I'm
19
    trying to understand is what your understanding was at
20
    the time that you're negotiating the subcontract of
21
    what Thales was being held to.
22
                     YVES DECLERCO:
                                     No.
23
                     CHRISTINE MAINVILLE: You did not have
24
    that understanding then?
25
                     YVES DECLERCQ:
                                     No, we don't know.
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1 didn't know exactly what Thales was bound to, and we --2 and we have no direct contact with them. 3 We were both subcontractor of OLRT-C. 4 It's up to OLRT-C as system integrator to manage the 5 interface. 6 CHRISTINE MAINVILLE: And so when 7 you're negotiating for a finalized ICD, or frozen ICD 8 deadline with OLRT-C, was it your expectation that 9 that would be reflected on Thales's end? 10 YVES DECLERCO: Yes, yes. 11 CHRISTINE MAINVILLE: And when did you 12 become aware that there may not be alignment there? 13 YVES DECLERCO: It was clear that in 14 April, at the supposed freeze date, Thales was not 15 ready. 16 In fact, we had the first completed 17 interface, I think design, maybe two years after. 18 CHRISTINE MAINVILLE: What would you 19 have expected to see in place at OLRT-C from a systems 20 integration perspective? 21 YVES DECLERCO: A clear interface 22 document prepared and managed. We are used to, I've 23 been working on French METRO contract with the CBTC, 24 we have the clear interface design by our customer at 25 the beginning of the -- or even during tender

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1
    negotiation.
 2.
                    Each time a change would come in
 3
    either from us, or whether from the CBTC supplier,
 4
    there was arbitration by the RATP as a system
 5
    integrator.
 6
                     CHRISTINE MAINVILLE:
                                          And you never
 7
    saw that in that case?
 8
                    YVES DECLERCO:
                                     No.
 9
                    CHRISTINE MAINVILLE:
                                           Would that be an
10
    interface agreement between Alstom and Thales?
11
                    YVES DECLERCO: No, no. It was going
12
    through -- when we have experience of the Paris METRO
13
    with Siemens as a CBTC supplier, the interface
14
    document was managed by the Paris RATP and shared with
15
    the two suppliers. But there was a way of management
16
    of interface and when there was issue, there was a
17
    three-party meeting and arbitration. If the
18
    arbitration say we need to change, we change.
19
                    FRASER HARLAND:
                                      I'm sorry to
20
    interrupt. Yves, when you say "arbitration", here in
21
    Canada, that specifically means sort of a legal
22
    litigation-like process. Are you talking about --
23
                    YVES DECLERCO: No, it was technical
24
    arbitration, I mean.
25
                                      Right.
                    FRASER HARLAND:
                                              Where the
```

1 interface manager is just deciding between 2 competing --3 YVES DECLERCO: He's doing the 4 modification, more or less. 5 CHRISTINE MAINVILLE: What if any 6 discussions did you have, or did Alstom have with 7 OLRT-C about this interface and what they were 8 planning to do? 9 YVES DECLERCO: No. 10 CHRISTINE MAINVILLE: There was none? 11 YVES DECLERCO: No. Because during 12 the -- I think during the negotiation phase, we didn't 13 have in front of us a chief engineer, in fact. 14 mainly commercial people. 15 We were explaining our needs regarding 16 interface, interface phase, but there was no real 17 technical challenge. 18 CHRISTINE MAINVILLE: Did Alstom raise 19 this as a concern? 2.0 YVES DECLERCQ: I was part of the 21 delegation, but not leading the negotiations, so I 22 don't know. Something we see, but... 23 It was clear that the system 24 integration was not properly handled. 25 When did that CHRISTINE MAINVILLE:

become clear to Alstom?

YVES DECLERCQ: Because of that, we did not have a system engineer coming and discussing us of all interface, what they will handle it, and so on. So we are most telling, we are this vehicle, we need to freeze this interface to the final vehicle here are the list of the interface we need to freeze here. And we have set quite aggressive date of April 2013, which is two months after the contract start.

There was no, really, a challenge on that, no discussion. With OLRT-C just took it and we didn't know which organization. It was a -- we put a date more in our advantage, but at the end, we didn't see sometime, depending of the people managing, we had some support, sometime not. It was a very -- but after that, more the time is -- I was quite active in 2013, but after that, I lost all the detail of the discussions.

You will probably interview people who are more aware of the day-to-day business status, the contract execution and so on.

CHRISTINE MAINVILLE: You're saying when Alstom put out an April 2013 date for the frozen ICD, there was no pushback or questioning of that by OLRT-C?

1 YVES DECLERCQ: As far as I remember, 2 no. 3 CHRISTINE MAINVILLE: And is that 4 because they -- as far as you could tell, they had no 5 engineer or someone who would have understood the 6 implications of that? 7 YVES DECLERCO: Maybe. 8 CHRISTINE MAINVILLE: And did Alstom 9 not understand -- you said it was an aggressive date, 10 I think you said. 11 Did Alstom understand that that was 12 possibly not realistic, as a timeline? 13 YVES DECLERCO: We didn't know. 14 understood later the Thales design was brand new. 15 CHRISTINE MAINVILLE: So if it had a 16 standard design or more advanced, it could have been 17 done? 18 YVES DECLERCO: Yeah. 19 CHRISTINE MAINVILLE: Okay. And could 20 Alstom's signalling system have met the City's 21 requirements? You talked about headway, the automatic train control, and how that was pretty --22 23 YVES DECLERCO: CBTC solution are 24 quite standard, yes. We had CBTC solution able to do 25 similar function for sure, yeah.

1 CHRISTINE MAINVILLE: But that ship 2 had sailed by --3 YVES DECLERCO: But it was not made in 4 I don't know the price of Thales, finally, Canada. 5 so... 6 CHRISTINE MAINVILLE: And I just want 7 to confirm that this was the first time that Alstom 8 worked with Thales on integrating their two systems on 9 a --10 YVES DECLERCQ: I don't think so. 11 think we have some experience in the one, but I have 12 no reference. 13 CHRISTINE MAINVILLE: Is that in 14 respect of an LRT? 15 YVES DECLERCO: On LRT, I think the 16 only case with the CBTC was ATO. Which is a unique, 17 probably unique in the world. 18 CHRISTINE MAINVILLE: Sorry, repeat 19 Was this unique or another -that. 20 YVES DECLERCQ: The ATO integration on 21 LRV is the first time. Normally it's -- I think it's 22 There is no mention in the reference in the first. 23 the world with automatic driving with an LRV. 24 So it was the CHRISTINE MAINVILLE: 25 first not just for Thales and Alstom; you think it was

1	a first altogether?
2	YVES DECLERCQ: Yes. But globally,
3	technically, it's not very different from a CBTC
4	integration of the METRO. And I think all over the
5	world on the METRO business, we have integrated all
6	kind of CBTC from other competitors, and probably
7	Thales is not the first time we are working with them.
8	The issue itself is not the
9	integration. And in the presentation we met with the
10	City, we explain that we have this experience
11	integrating CBTC from other competitors and other
12	companies. It's quite usual, and it's usual way to
13	split the business between companies and share the
14	risk, and so it's nothing abnormal. What was abnormal
15	is that the Thales design was brand new, probably for
16	cost reason.
17	CHRISTINE MAINVILLE: Probably from?
18	YVES DECLERCQ: For cost reason.
19	CHRISTINE MAINVILLE: For cost, okay.
20	YVES DECLERCQ: Competitiveness
21	reason, they try to experiment in brand new system.
22	And it was not ready at all to design a vehicle.
23	CHRISTINE MAINVILLE: So you think
24	that was the real challenge in this case, in addition
25	to insufficient integration on the part of OLRT-C?

1 Yeah. YVES DECLERCQ: 2. CHRISTINE MAINVILLE: As opposed to 3 Alstom and Thales integrating their two systems? 4 YVES DECLERCO: As opposed -- I think 5 Thales decide to go with a very innovative solution, 6 But then they were unable to meet our needs 7 regarding the solution freeze, because there is a lot 8 of electric implication of the CBTC installation, and 9 we had a quite aggressive production program. 10 was -- we need to have this interface frozen at the 11 beginning of our design. And by the way, we have seen 12 the consequences of not having it with a huge 13 retrofit, a lot of issue in this disturbance. 14 CHRISTINE MAINVILLE: A lot of issues 15 and... 16 YVES DECLERCQ: Disturbance in our 17 production flow. 18 CHRISTINE MAINVILLE: Riaht. 19 think this, the delay in getting unfrozen -- or a 20 frozen ICD, not only caused retrofits, but did it 21 ultimately lead into integration issues at the end of 22 the day? 23 YVES DECLERCO: It was, yes, all the 24 time. There was many implication having a brand new 25 system and discovering it, for sure it's creating it.

1 And once again, I have the reference 2 of the METRO of Paris Line 1, when their RATP decided 3 to fully automatize the line, it was a contract signed 4 in 2005, and the Siemens system, signalling system was 5 new as well, but the interface was frozen from the 6 beginning of the contract. And globally, RATP 7 achieved its goal to switch the line to a full 8 automatic operation with new vehicle without stopping 9 the traffic. So it was very complex project, but one 10 of the condition was that all interface in the new 11 system are frozen. It's very important. 12 CHRISTINE MAINVILLE: And why would 13 Alstom not tell OLRT-C, you know, can we not talk to 14 an engineer about this? 15 YVES DECLERCO: But we had this 16 discussion. 17 But as -- what can you say to an 18 engineer, who has not worked in detail on the system, 19 is not able to provide any detail of the system you 20 will provide; what can we do? 21 So what we have done was the only 22 solution that we have return a document which is you 23 seen in the subcontract, it's an Alstom document, 24 detailing the CBTC interface, it's not -- so it was 25 prepare after the meeting of August, maybe another one

1 with Thales, their engineer, but we took the 2. initiative to write this document and try to freeze 3 the interface with Thales, despite Thales didn't --4 normally it's a document that should be returned by 5 Thales, but we did it for him in order to secure the 6 project; and we cannot do more. 7 For sure the way -- and we have 8 discussed this topic, and the way the subcontract is 9 returned is the proof of that. 10 Is the what? CHRISTINE MAINVILLE: 11 YVES DECLERCO: The proof of this 12 discussion we have with OLRT-C. And we did the best 13 and even more than the best, to freeze the interface 14 and secure, globally, the project execution. 15 CHRISTINE MAINVILLE: And the 16 interface that Alstom ultimately got from Thales, was 17 it significantly different than what Alstom had been 18 relying on? 19 YVES DECLERCQ: As far as I remember, 20 we ask a claim of 2 million at one point to change and 21 modify the doctrine, yes, it was significant. 22 CHRISTINE MAINVILLE: So that caused 23 issues, I expect. 24 YVES DECLERCO: Yes. Retrofit, delay 25 in production and everything. And even I think, when

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1
    we accumulate -- because 2 million, I think it was a
 2
    claim of 2014, or '15, but later on we had other
 3
    issue, and we had still another issue now of that
    kind.
 4
 5
                    CHRISTINE MAINVILLE:
                                          Well, you said
 6
    the City changed the specs later on?
 7
                    YVES DECLERCO: No, no, no. I said
 8
    that we have, we have many, many change -- why you
 9
    are talking of the City? I did not talk of the City.
10
                                           Earlier, I think
                    CHRISTINE MAINVILLE:
11
    you made some reference to the specifications
12
    changing.
13
                    YVES DECLERCO:
                                    During, between I
14
    think December 2011 and more or less July 2013, I
15
    think we had many change in the specification, yes,
16
    five -- four or five version changing.
17
                    CHRISTINE MAINVILLE: Were those
18
    significant changes?
19
                    YVES DECLERCO:
                                           Globally, to
                                    Yes.
20
    allow a different configuration of the whole system, a
21
    signal that -- so I think there was -- and I don't
22
    remember all the details, it was ten years ago, but...
23
                    CHRISTINE MAINVILLE: Do you know what
24
    drove those late changes or why they were late?
25
                     YVES DECLERCQ: Because they realized,
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1
    probably it was the result of question and answer.
 2.
                     But at that point, we were not -- the
 3
    point is, we are subcontractor of the bidder.
 4
    were not directly in line and tight with all the
 5
    question and answer.
 6
                     We didn't have access to all the
 7
    normal file you have when you are doing a tender.
 8
    had only the information that RTG wanted to give us,
 9
    and some official edits of the subcontract --
10
                    CHRISTINE MAINVILLE:
                                          Right.
11
                     YVES DECLERCQ: -- and the specification.
12
                     CHRISTINE MAINVILLE:
                                            So you had no
13
    direct access to the ultimate customer, the City?
14
                     YVES DECLERCQ: No.
15
                     CHRISTINE MAINVILLE: And was that
16
    something Alstom didn't have experience with in terms
17
    of P3 projects?
18
                     YVES DECLERCO:
                                     It was not -- we were
19
    not in a P3 -- we were subcontractor of the main
20
    contractor, so it was -- we were not part of the P3.
21
    We were not -- and most of the time, we were not even
22
    as a partner of the RTG, because we -- it was an
23
    emergency plan to get us on board. And during the
24
    summer break...
25
                     CHRISTINE MAINVILLE:
                                            Right.
                                                    We
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1
    should probably take a break, but I just want to ask
 2
    you.
 3
                    You insisted on how this was a fully
 4
    automatized project. Did that add some level of risk?
                     YVES DECLERCO: We didn't understood
 5
 6
    that immediately. I think we realize that later
 7
    during some design, that the vehicle would be
 8
    operating fully automated mode.
 9
                     It was not clear to me, as far as I
10
    remember, it was not clear to us until we have the
11
    first discussion with the customer about the operation
12
    profile and so on and so forth.
13
                     CHRISTINE MAINVILLE:
                                           Is that
14
    something normally you would have expected to know
15
    from the get-go?
16
                     YVES DECLERCO:
                                     I think it's, yes,
17
    better to know before. But sure, it would have change
18
    a lot of things.
19
                     CHRISTINE MAINVILLE:
                                           Okay.
20
                     YVES DECLERCQ: We were purchasing an
21
    opportunity to have a solution in the North American
22
    markets, so we did our best to get that done, with the
23
    right contractual protection. And immediately it was
24
    the interface, we have added an interface description,
25
    we have added in our subcontract.
```

1 Sorry, you CHRISTINE MAINVILLE: 2 talked about service-proven components being brought 3 together --4 YVES DECLERCO: Yeah. 5 CHRISTINE MAINVILLE: -- for the first 6 Would Alstom have represented to the City that time. 7 this was a service-proven vehicle? 8 YVES DECLERCO: We did in our 9 presentation, yes, a chapter called "service-proven 10 vehicle showing from which vehicle the design, the 11 Ottawa design is derived from. And the list of the 12 components we would use, and which product they are 13 used. 14 CHRISTINE MAINVILLE: And how would 15 you define "service-proven"? 16 YVES DECLERCO: In this case, for the 17 request of the OLRT-C, no one in the world, even 18 Siemens, did not operate its vehicle in four units. 19 So everybody would have design change. So I think for 20 sure, it is not another available vehicle, available 21 vehicle ready for use taken from another city that we 22 bring to Ottawa. 23 So our understanding of service-24 proven, and we didn't like that, that we are reusing 25 and composing specific architecture based on the

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1
    service component.
 2.
                     CHRISTINE MAINVILLE: And is there any
 3
    standard definition of that in the industry, of
 4
    what --
 5
                    YVES DECLERCO: No, I don't think so.
 6
    It's...
 7
                     CHRISTINE MAINVILLE: It's a bit
 8
    subjective?
                     YVES DECLERCO: It's subjective.
10
    frankly, we -- it was not that -- it was not we didn't
11
    try to mistify the City, telling that we have a
12
    vehicle existing ready for use, no. We said, we have
13
    all the range of experience, we have all the
14
    component, the experience of integration and
15
    everything, and we can put together a vehicle that
16
    would meet the specification.
17
                     And globally, what we have proposed,
18
    and the architecture we have proposed, as I said, has
19
    not changed. So it mean that we have not make
20
    mistake, we have decided in our past follow it, for
21
    sure we have set of issues, adjustment, problem that
22
    we already know. Which more, kind of maturity in the
23
    specific Ottawa environment, and like I think was very
24
    disappointing, was the preliminary of passenger
25
    service, the planned service, which was not performed
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1 properly. And for sure, the decision of starting the service was taken too early compared to the maturity 2 3 of the system. 4 CHRISTINE MAINVILLE: Compared to the 5 maturity of the system. What did you say was -- now I 6 forget what you said not done properly. Not starting 7 the system, but before that you mentioned --8 YVES DECLERCO: The planned service, 9 there was a long period of service without passenger, 10 with performance to achieve and obviously The contract 11 was very clear on many topics. From what I've seen, I 12 was not directly involved at this stage, but from what 13 I've seen, I know the date, I know the time it was 14 taken. And I also talked to my colleague, and know 15 that globally we shouldn't have decide to start the 16 system with the lack of preparation we had. 17 CHRISTINE MAINVILLE: You're saying 18 you provided for that in the contract some --19 YVES DECLERCO: The contract itself, 20 from the City was very clear. But I think we did not 21 follow -- everybody forgot the contract when -- there 22 was very clear from the original contract performance 23 criteria to achieve, a lot of detail, and I'm pretty 24 sure they were not achieved. 25 Just so I'm CHRISTINE MAINVILLE:

1 In the Project Agreement between the City and 2 RTG, the performance criteria to be achieved --3 YVES DECLERCO: It was very clear, 4 yes, for me, time, duration, answering -- I'm pretty 5 sure -- I would be surprised to see that all those 6 stated detail were met. 7 CHRISTINE MAINVILLE: You would be 8 surprised to see they're met. And you're referencing, 9 for instance, a trial running period? 10 YVES DECLERCO: Yes, talking of that, 11 the result of the trial running period, yeah. 12 CHRISTINE MAINVILLE: And is any of 13 that reflected in Alstom's subcontract where you 14 would just --15 YVES DECLERCO: It was flowed down to 16 us, yes. 17 CHRISTINE MAINVILLE: It was flowed 18 down And I take it then that Alstom has insight 19 into the overarching Project Agreement? 20 YVES DECLERCO: The structure of the 21 contract during all of the tender phase, we had access 22 to the full contracts for Project Agreement. 23 And in our subcontract, it is clearly 24 we have appendix describing which part of the main 25 contract are flowed down to us, or applied to us or

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1
          And another one which we have adapted, we
 2
    rewrite, we made a very clear statement of how the
 3
    flow down is made.
 4
                     CHRISTINE MAINVILLE:
                                            Okay.
                                                   So
 5
    Alstom, am I right to take your answer to mean that
 6
    Alstom would rely on those performance criteria being
 7
    met --
 8
                    YVES DECLERCO:
                                    Yeah.
 9
                    CHRISTINE MAINVILLE: -- that are
10
    provided for in the Project Agreement, as part of
11
    whether Alstom views the system to be ready for
12
    service?
13
                     YVES DECLERCO:
                                     There was a, I think
14
    reliability and availability target to meet, and
15
    anything like that. I don't see how they could have
16
    been met. By the way, we have a lot of integration
17
    issue that we are not able to test, because the track
18
    was not ready, because many, many issues at the end.
19
                     CHRISTINE MAINVILLE:
                                           And we'll come
20
    back to that. But am I right that Alstom has no say
21
    under the contract, into whether those criteria are
22
    met?
23
                     YVES DECLERCO: Yes, it was not -- no,
24
    it was not our decision.
25
                     CHRISTINE MAINVILLE:
                                            Okay.
                                                   If we can
```

1 go off record. 2. -- RECESS TAKEN AT 11:00 A.M. --3 -- UPON RESUMING AT 11:10 A.M. --4 CHRISTINE MAINVILLE: Mr. Declerca, 5 what would Alstom like to see in terms of -- we talked 6 about the trial running criteria. What kind of 7 burn-in period, or other such dry running periods does 8 Alstom typically like to have on a new system like 9 this? 10 YVES DECLERCO: It's difficult to 11 answer, but I think one of the many issue we face is 12 that the full system was available only very late, I 13 think it was maybe June or July. 14 The full system was only available at 15 the last minute, so we didn't have time to make the 16 trial run. But I think the initial plan it was 17 supposed to -- not only the trial run, but I think the 18 contract it was well described that you have to make 19 integration of each subsystem together, pair by pair, 20 and then you expand the system. And this was not done 21 properly. 22 And globally, I think the subsystem 23 integration time, plus the trial run, should have last 24 six months at least. 25 CHRISTINE MAINVILLE: Is that

1 sometimes provided for specifically in the contract? 2. YVES DECLERCO: I think there was 3 some -- it was ten years from the contract. 4 But I think it was well described. 5 And we had some issue until the last minute of the 6 catenary that was set which would create some issue on 7 the vehicle. We didn't run properly, we didn't have 8 some trial run in winter, we never had the full line 9 in winter, because also the snowing means we're not 10 available. 11 So normally you have to set up, run 12 But also the organization, also the every subsystem. 13 OC Transpo was part of the trial run and globally it 14 was -- it went too fast and, obviously, what was also 15 critical in the press, that the Ottawa system had the 16 day of the start, the back up bus service was removed. 17 So there was no transition, nothing, 18 it was directly. And that was very -- and I was 19 following, because it was a big project for me. 20 are not directly involved, but to see there are few 21 days of pressure, many people on the platform showed 22 that something went wrong in the organization of the 23 operation and the transition from the bus to the LRV. 24 CHRISTINE MAINVILLE: You no longer 25 had a formal role in this project, but you kept track

1	of the
2	YVES DECLERCQ: Yeah.
3	CHRISTINE MAINVILLE: of it?
4	And what was lacking, you say, in the integration
5	testing phase?
6	YVES DECLERCQ: Time.
7	CHRISTINE MAINVILLE: So it just
8	didn't have enough?
9	YVES DECLERCQ: The readiness of I
10	know that the track was not available, it was very
11	difficult to organize. We have done a lot of
12	operation construction, test on site, and to do
13	everything on Ottawa site, but Ottawa site was not
14	ready to run that.
15	And we have a lot of issue to organize
16	our test run, the vehicle acceptance and everything to
17	meet the coordination. Of course there was suddenly
18	an emergency to start the operation, and I think the
19	trial run period was too short.
20	[Reporter intervened for clarification
21	purposes].
22	YVES DECLERCQ: The trial run period
23	was too short not conclusive as per the contract
24	expectation.
25	CHRISTINE MAINVILLE: Not conclusive,

1	in what way?
2	YVES DECLERCQ: I've been told that
3	the some days were decided as successful when the
4	criteria weren't met.
5	CHRISTINE MAINVILLE: You're
6	referencing the trial running period?
7	YVES DECLERCQ: Yeah.
8	CHRISTINE MAINVILLE: And you
9	mentioned earlier, that there were integration issues
10	Alstom wasn't able to test; what would those be?
11	YVES DECLERCQ: We need the full line
12	to do performance test, I remember the dynamic
13	behaviour of the vehicle, the tests were delayed a lot
14	because the full line did not open did open only
15	few months before the service start.
16	We had some Siemens substation
17	adjustment issues, and once again, I was not really
18	involved. I was still following the product as such
19	and be aware. But not directly involved in the
20	day-to-day operation in Ottawa with the contract.
21	CHRISTINE MAINVILLE: But your
22	understanding is, effectively, there was just not
23	enough integration time to fully debug the system?
24	YVES DECLERCQ: Yes, I think so, yeah.
25	CHRISTINE MAINVILLE: And could that

1 have had implications following revenue service 2 availability in terms of how the system performed? 3 YVES DECLERCO: Yes. At the point 4 there was delay from all parties, I think. And, yes, 5 maybe a few months of trial run would have been useful 6 to avoid issues. And the Ottawa, since the service 7 start, it was succession of crisis, you would have 8 spare some of that. 9 CHRISTINE MAINVILLE: Are you aware of 10 some of the issues encountered during service 11 operations that you would connect to integration 12 issues? 13 YVES DECLERCO: Yes, I think so. 14 major issue we are facing with derailment, and with 15 the right interface is probably linked to this kind of 16 topics, yes. 17 Like we have no evidence that the 18 track is laid as a schedule, and then we have some 19 issue. We had also got damages on the track because 20 the Thales system was not set properly. Normally, 21 there is a setting for winter condition, in which the 22 acceleration/deceleration to total adhesion [ph], and 23 it was not applied properly. 24 CHRISTINE MAINVILLE: Which may have 25 contributed to wheel flats; is that your...

1 YVES DECLERCQ: Yes. 2. CHRISTINE MAINVILLE: And the doors, 3 were the door issues potentially connected to 4 integration issues? 5 YVES DECLERCO: The door issues, I 6 think we have door issues on all contracts execution. So there was always adaptation time, you need to find 7 the right setting of the doors. 8 This was functionally for sure was 10 seen too late. But it was due to a singular 11 misunderstanding on the specifications. So I would 12 not retain the door. 13 The rear vision with high speed radio 14 issue was probably, yes, also. Something would have 15 been managed properly, in fact it was discovered too 16 late, for sure. And it was also, but clearly a system 17 integration issue, where at the beginning -- now we 18 have another kind of problem. But the first level of 19 problem, which is the fact that rear vision has been in 20 the platform, didn't display for sure the station where 21 the train is stopped. Which has provoked, or caused 22 the decision to have a watcher on the platform. 23 For the main causes, for me is an 24 integration issue. Because it was very clear that our 25 data radio system was not the safety system, it was not

25

1 designed with safety condition. So to ensure that we 2 are in the right platform, we are displaying the right 3 platform in the cab, we need a safety signal coming 4 from the Thales system to secure that. 5 It was a solution finally decided, but 6 this was not managed at all by OLRT-C. And when it happens, there was a lot of pushback because also --7 8 but I didn't say that I know that each time there was 9 interface issue with the Thales, each time OLRT-C 10 tried to push on us. Because from Thales, it was 11 pretty sure they would have pushback in the best case, 12 and worst case it was a change order, a very expensive 13 change order. So we were more gentle I would say, and 14 each time we -- there's issue, they try to push issue 15 on us. 16 In this case, I think the fail of the 17 rear vision at the beginning was a clarity and an 18 interface issue. Now we have other kind of issues, 19 which is purely on our side of black screen, which is 20 another one, but... 21 CHRISTINE MAINVILLE: And that's --22 what is that issue that you're referencing? 23 YVES DECLERCO: The issue we have is 24 that we have bug in the software, and sometime the

screen -- when they are display something, it's always

- the right station, but sometime the screen turn to black, so this is a bug we are looking for.
- What we have also is I know when OLRTwas not very constructive in helping us in trying new
 software include the solution and so on. So we have,
 most of case, solution that are ready for use. But as
 OLRT-C do not authorize us to do some trial tests,
 they have no real procedure to do some what we call a
 limited test on some fleet, we are stuck and not able
- limited test on some fleet, we are stuck and not able to move and correct. We have the solution, but we are not able to deploy it.
- There is no organization. In fact, as
 an operator, it's very usual to have a limited test on
 a dedicated fleet, when you are watching the next sort
 of intervention in a safe condition, of course.
- But I think all this kind of organization and the City is not talking right.
- 18 CHRISTINE MAINVILLE: And what's your
 19 understanding of why OLRT-C won't allow Alstom to do
 20 these kinds of tests?
- YVES DECLERCQ: Because it, for sure,
 this is a change in software is impacting the safety
 file, and it could create a safety issue. So you
 cannot change a software like that, but you have to
 ask condition and so on and so forth.

1 But as METRO operator and METRO system 2 operator, I worked with specific process to handle 3 this kind of tests. 4 But here, also, I think that all the 5 discussion -- my personal feeling is, we have no real 6 system engineer managing and watching what's happening 7 today. 8 CHRISTINE MAINVILLE: Even today? 9 YVES DECLERCO: And all is turning 10 into contractual discussion, claim and things like 11 We have no fair engineering ground to see what that. 12 are the issue, what we can set up for a solution, what 13 is the best arbitration. It's slowed down a lot 14 resolution of all the issue we have. 15 CHRISTINE MAINVILLE: And would that 16 be an engineer you would expect to see working with 17 OLRT-C or RTM? 18 YVES DECLERCO: Oh, yes. It's depend 19 -- I don't know, it's a share between the two. 20 for me, we are still in the construction, the system 21 is not fully at the full operation level. 22 It can move from one side to user. 23 But regarding us, what all this adjustment, software 24 change as part of the rolling stock contract, not part 25 of the maintenance contract.

1	CHRISTINE MAINVILLE: And you
2	mentioned when you spoke about the derailments, some
3	potential integration issue with the track.
4	YVES DECLERCQ: Yeah.
5	CHRISTINE MAINVILLE: What would that
6	be?
7	YVES DECLERCQ: We have to report
8	which will be published on that, but we have suspicion
9	on the condition of the track for sure, but I will
10	not
11	CHRISTINE MAINVILLE: Okay. But your
12	understanding is, there may have been some are you
13	speaking about one of the two main derailments on the
14	main line, as opposed to the yard?
15	YVES DECLERCQ: Yes. The first one,
16	not the second one, the first one.
17	CHRISTINE MAINVILLE: The first one,
18	okay.
19	We haven't spoken about the
20	maintenance contract. Can you tell me about how the
21	procurement of that contract, and whether it was
22	directly
23	YVES DECLERCQ: We were two teams
24	working together. One rolling stock team and one
25	maintenance team or service team, and we were

1 negotiating in parallel, but not -- I have no detail 2 about the maintenance contract which was negotiated, 3 what was agreed to. I cannot really help you on this 4 topic. 5 CHRISTINE MAINVILLE: That's not 6 something that would have factored into your own 7 negotiations? What was being provided for on the 8 maintenance front? 9 YVES DECLERCO: We are providing the 10 detail of the vehicle. And according to their -- they 11 have some LRVs, so they know from the configuration 12 what the typical utilization and consumption of spare 13 parts they have, the man-hours they are assuming based 14 on the LRT profile, and so globally it is built on 15 They don't need to have all technical detail, that. 16 because more or less it's... 17 CHRISTINE MAINVILLE: Would the 18 maintenance want to know what's being provided for in 19 terms of acceptance criteria and testing? 20 YVES DECLERCO: No. Because the 21 maintenance is supposed to start after the warranty 22 So the basic performance is supposed to be period. 23 achieved, which is the base of their costing 24 assumption. 25 CHRISTINE MAINVILLE: So on that

1 point, are you aware of retrofits that were deferred in this case and a term sheet agreed upon to enter 3 into revenue service? 4 YVES DECLERCO: After that, there was. 5 I don't know the -- I don't know what you mean by "Term sheet". 6 7 CHRISTINE MAINVILLE: Effectively, a 8 list of items that RTG and the City agreed to defer. 9 That were not complete under the Project Agreement, but 10 that were deferred until after revenue service 11 availability. 12 YVES DECLERCO: Okay, but... 13 CHRISTINE MAINVILLE: You're not aware 14 of that? 15 YVES DECLERCQ: Not going through the 16 City, but we have probably -- you actually give a list 17 of reserve, I guess, from the final acceptance of the 18 LRV and the modification that need to -- yes, I know 19 they need a list. And then globally this is organized 20 in between our rolling stock and service team. 21 CHRISTINE MAINVILLE: I just wonder 22 how that would inform the maintenance side. 23 you're not a person to speak to that, that's fine. 24 But what --25 The configuration list, YVES DECLERCO:

1 and list of -- because we also have people, I think in 2 the organization, manage it from service, and shown 3 the warranty for us, or we are -- and I think we are 4 readapting the local organization in Ottawa currently 5 to handle -- what we have to do as part of warranty, 6 retrofit and standard service. But I can not tell 7 you, give you detail on that. 8 CHRISTINE MAINVILLE: Typically, if 9 Alstom is providing the rolling stock, would it 10 necessarily be in charge of maintaining the rolling 11 stock? 12 No, it's depend on the YVES DECLERCO: 13 contract. 14 CHRISTINE MAINVILLE: Okay. And so 15 what level of experience did Alstom have on the type 16 of maintenance that is being done in Ottawa? 17 YVES DECLERCO: We have many -- I 18 don't have the reference here with me, but we have 19 many reference of contract, of LRV contract where we 20 are executing the maintenance as well. 21 CHRISTINE MAINVILLE: Including 22 sometimes the infrastructure? 23 YVES DECLERCO: The infrastructure, I 24 think it's -- I don't know. I know more the scope of 25 rolling stock, and that. But the contract for vehicle

1 maintenance and extended maintenance. But the infra was not awarded immediately, it was negotiated 2 3 I think one or two year later. 4 CHRISTINE MAINVILLE: Originally the 5 scope for Alstom's maintenance contract was just --6 YVES DECLERCO: Was the rolling stock, 7 yes. 8 CHRISTINE MAINVILLE: Just the rolling 9 stock, okay. 10 So what is the governance structure as 11 between Alstom maintenance and the Alstom vehicle 12 How do they work together or what are supply teams? 13 the reporting lines? Can you talk about how that 14 works? 15 YVES DECLERCQ: Like not currently, 16 which the organization has changed, the rolling stock 17 organization and service organization are part of our 18 Together, it is in the common -- we organization. 19 have, currently, we have a common point at the region 20 VP level. 21 CHRISTINE MAINVILLE: The regional --22 YVES DECLERCO: President level, but I 23 think the two organizations formally are totally 24 independent. After that, it's up to people at -- at 25 each level that they are walking together and

1 coordinating themselves. 2. What is important, as you know, we 3 also have a separate commercial structure with a customer director and so on. So we are always 4 5 ensuring that the response we are providing to our 6 customer is consistent, and the best possible, 7 whatever is the organization. So we find the 8 resources to address the issues anyway. 9 And as today, we have clearly separate 10 organization for what is warranty, retrofit and 11 When it did, we are able to coordinate service. 12 ourself, or to address any emergency we may have. 13 [Reporter intervened for clarification 14 purposes]. 15 CHRISTINE MAINVILLE: How would 16 tensions between the two entities, if you want to use 17 that term, be resolved? 18 So if the interests of Alston 19 maintenance differ, or are in tension with the 20 interests of Alstom supply, how would that be managed 21 internally? 22 YVES DECLERCO: By the customer 23 director would always ensure that commercially the 24 customer has the best service. So there is no 25 tension.

1 There is clear arbitration, okay? This cost me that if -- but we are not playing one 2 3 contract against the other. We are playing the global 4 customer service. It's the only way to use the best 5 of resource. I will not say I make money, because 6 it's not the case today but... 7 CHRISTINE MAINVILLE: Who is in that 8 position, customer director? 9 YVES DECLERCO: His name changed 10 recently, so I don't know him. I have to check. 11 CHRISTINE MAINVILLE: Is this person 12 located in France or is it North American? 13 YVES DECLERCO: No, no it's as --14 CHRISTINE MAINVILLE: On the project? 15 YVES DECLERCO: No, it's not on the 16 project. We have in the commercial organization, we 17 have one person dealing with each customer and 18 ensuring that each customer -- so it's a customer 19 director, which is managing all the contracts with one 20 dedicated customer. 21 I think there was a missing position, 22 so for a long time, I think Souheil Abihanna, which is 23 a Canadian President, I don't remember his last role, 24 because the organization change with a Bombardier 25 So it was Souheil Abihanna, until the acquisition.

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    replacement was found, so he took this position for a
    time, so a new people have been appointed. But there
 2
 3
    was a continuation in the organization of this kind of
 4
    stuff, so there was -- we have a -- and by the way,
 5
    all what is the arbitration is coming back to the
 6
    region, the President, which is also in charge of the
 7
    P&L of the Region, so he is able to see if there is an
 8
    issue on one contract.
 9
                    And globally, this contract currently
10
    is having a lot of attention, a lot of coordination
11
    between the service vice-president, and rolling stock
12
    vice-president, and we are really -- there is no
13
    conflict.
               Maybe we may have some coordination issue
14
    on the field in the organization and so on, which we
15
    are not perfect on. But this is handled properly, and
16
    there is not any conflict between the organization.
17
                    CHRISTINE MAINVILLE: So are you aware
18
    of the two being at odds to a certain extent on this
19
    Ottawa project?
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                    YVES DECLERCQ: Currently, yes, we
21
    have as the situation is very serious, we have to be
22
    pull, I think many times, meeting together.
23
                    CHRISTINE MAINVILLE: So what's the
24
    issue, just in broad strokes?
25
                    YVES DECLERCQ: Globally, it's too --
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1 we are, since the derailment, we are struggling to 2 ensure the service and to secure the ramp up of the 3 service with the end of the Covid crisis and having 4 the right number of vehicle in operation every day. 5 So it's still fine -- because we have to deal with, as 6 you said, retrofit inspection, and lot of safety 7 issues, so that it's not -- and we need to introduce 8 more new vehicle on the line, for which the customer 9 is reluctant accept and... 10 CHRISTINE MAINVILLE: There's a lot to 11 be done at the maintenance facility and competing --12 YVES DECLERCO: As today, the situation 13 is not yet stabilized. And, yes, it require a lot of 14 attention to secure that. We meet the availability 15 target, and currently it's done. And in fact since 16 second derailment, and restart operation, still a 17 struggle. 18 It's not, for us, we have some -- we 19 are doing our best to do that. We have some 20 definitive modification, we are still as I say, 21 expecting authorization to test some improvement and 22 we are in this process. 23 CHRISTINE MAINVILLE: In terms of 24 revenue service availability, when the Stage 1 25 vehicles were to complete a trial running, and

1 ultimately were handed over to the City, did Alstom 2 have any official position or formal position as to 3 whether the trains were ready for RSA? 4 YVES DECLERCO: The decision was at 5 system level. We have the train accepted with some 6 list of issue to be fixed. But, yes, as far as -- we 7 see, and the number of quantity of mileage done, it 8 was ready, yes, from what we know. Will not say, no, 9 you cannot run them. 10 CHRISTINE MAINVILLE: Sorry, from 11 Alstom's perspective, it had met the requirement? 12 YVES DECLERCO: Yes. Somehow, ves. 13 CHRISTINE MAINVILLE: Right. So even 14 though Alstom appeared to question how the trial 15 running criteria were met, it was proceeding on the 16 basis of the results given to them -- to it? 17 what I'm understanding? 18 YVES DECLERCO: I was not really part 19 of the decision, but I think it was difficult to say, 20 no, we will not run. As long as the OLRT-C consider 21 and the City was considering the target were met. 22 CHRISTINE MAINVILLE: And to what 23 extent, if you know, would Alstom's input be obtained 24 about the readiness of the systems? 25 YVES DECLERCQ: Would you repeat the

1 question, to what extent? 2. CHRISTINE MAINVILLE: To what extent 3 would the City, or RTG, or OLRT-C obtain Alstom's 4 input -- or maybe I should rephrase that. 5 Are you aware of what input was 6 sought, if any, from Alstom on the readiness of this 7 system? 8 YVES DECLERCO: I think -- I don't 9 know exactly, but I think it was delaying the report 10 of the motor vehicle operation, the failure happening 11 and something like that. So, no, I don't know how it 12 was shared with Alstom team. 13 CHRISTINE MAINVILLE: But your 14 understanding is, at least formally, Alstom would have 15 taken the position that the system was ready? 16 YVES DECLERCO: I think as it were, 17 from what I've understood, yes, we were not involved. 18 We have no specific objection made to the service 19 start, as long as OLRT-C and the City was considering 20 it was good enough. 21 CHRISTINE MAINVILLE: Okay. 22 YVES DECLERCO: And I don't think we 23 get the detail result of the operation and... 24 CHRISTINE MAINVILLE: You don't get 25 the details of the --

1 YVES DECLERCQ: I'm not sure, no, no. 2 But I've understood that. 3 CHRISTINE MAINVILLE: Do you know 4 whether there was any tension there with Alstom 5 maintenance, in terms of whether on the maintenance 6 side, there was a view as to whether the system was 7 ready for service? 8 YVES DECLERCO: No, no. 9 CHRISTINE MAINVILLE: No, you're not 10 aware? 11 YVES DECLERCO: No, I don't understand 12 your question. 13 CHRISTINE MAINVILLE: So let me give 14 you, maybe frame it as a hypothetical for now. 15 If the system has met the tests and 16 the contract requirements for being accepted, but it 17 hasn't had a long -- a very long debugging phase, dry 18 run period, this type of thing, am I right, first of 19 all, that that would lead to additional pressure on 20 maintenance after operations? 21 YVES DECLERCO: Yes. 22 CHRISTINE MAINVILLE: Is it fair to 23 say that that was anticipated in this case? That. 24 there would be added pressure on maintenance with the 25 system going into operations?

1 YVES DECLERCQ: I don't know. 2. CHRISTINE MAINVILLE: But certainly as 3 you've explained, there wasn't the time Alstom would 4 have liked to fully debug the system, right? 5 Ahead of revenue service. 6 YVES DECLERCO: Yeah. 7 CHRISTINE MAINVILLE: So in light of 8 that, would Alstom, on the maintenance side, not have 9 concerns about accepting the trains for maintenance, 10 given that they're subject to potential deductions, 11 penalties, if things don't go very smoothly? 12 I cannot talk for the YVES DECLERCO: 13 maintenance team, no. 14 CHRISTINE MAINVILLE: I take it you're 15 not familiar -- you're not familiar at all with the 16 maintenance contract, you never saw the maintenance 17 contract? 18 YVES DECLERCO: Not really. 19 CHRISTINE MAINVILLE: Okay. 2.0 YVES DECLERCO: Not in detail. But if I 21 know the condition, but at first place, in such case 22 the issue are -- when you have issue at the beginning 23 of service, it's mainly fall down onto warranty team, 24 which is under the rolling stock contract, not the 25 service team.

1 Right. So if CHRISTINE MAINVILLE: 2 there were issues during service, because trains 3 weren't quite ready, Alstom would look to the 4 warranty, and so it may not be. 5 YVES DECLERCO: At the beginning if we 6 Because in the beginning we were on have, ves. 7 interface and warranty covering the corrective 8 maintenance, not the service which is only preventive 9 maintenance, the regular one -- I'm saying that during 10 warranty phase, the corrective maintenance is the 11 responsibility of the warranty team. So if you have 12 an expecting issues, normally, it's fall down to the 13 warranty team, not to the service team. 14 CHRISTINE MAINVILLE: You mean with 15 OLRT-C, the warranty team? 16 YVES DECLERCO: No, with Alstom. 17 talking of rolling stock issues. 18 CHRISTINE MAINVILLE: Okav. 19 this was outside of your scope, but would there have 20 been any concerns given the structure of the 21 consortium and RTM having some of the same partners as 22 OLRT-C, would there be concern about RTM not always 23 acting in the interest of the maintainer? Outside of 24 your domain? 25 YVES DECLERCQ: No, but I don't see

25

1 why RTM would -- RTM is in charge of maintenance or 2 what they would act against the maintainer. 3 Once again, I think we are missing a 4 strong system engineering. I seen both in 5 construction and maintenance contract to make the 6 right arbitration, and not falling down to immediately 7 to a claim management. 8 We are losing energy first to discuss 9 claim, while simple technical solution can be set up. 10 And with the right arbitration, we are really ready to 11 do that, by the way, internally. And we are not --12 when we have some issue, we are not looking if people 13 are from Alstom on service or in warranty or whatever, 14 they are ready and have the skill and can do what need 15 to be done to have the vehicle running, we do it. 16 But I think really, yes. Not actual 17 example, except I know all the software we tried to 18 test, and we proved the behaviour of the vehicle to be 19 very difficult to implement. And from what I see of 20 my colleague telling what is happening on-site, they 21 are burning time in contractual meetings with all 22 parties and not working on fixing the issues. 23 CHRISTINE MAINVILLE: Not working on 24 fixing the issues you say, uhm-hmm.

YVES DECLERCQ:

The lack of global

1 engineering is what -- we had this feeling when we 2 negotiated the contract. And by the way, the people 3 leading the negotiation, which are not part of the 4 company anymore, but we were convinced that at some 5 point RTG would ask us, to help us to set up a system 6 integration organization. And unfortunately, it did 7 And I'm not sure they have realize this not happen. 8 is what is missing in the global system organization. CHRISTINE MAINVILLE: Riaht. You said 10 unfortunately they never -- they could have asked 11 Alstom to take that on, but --12 YVES DECLERCO: Yes. Or appoint people 13 to do that with the right skill, but we didn't have 14 that. We have some punctual counterpart on the 15 engineering side, but obviously there was a budget 16 issue, so people were not full-time at some point. 17 think our main counterpart within the OLRT-C 18 organization, which was Jacques Berigeron, disappear in 19 And just before the launch of the preparation 20 for the system integration, we have no engineering 21 counterpart. And I knew that Jacques was also 22 involved in some arbitration with Thales and make 23 sense of some decision, it was very difficult. 24 after Jacques disappear, because probably OLRT-C did 25 not want to spend money on that, it was a mess.

1 CHRISTINE MAINVILLE: Okay. And just 2 When you talk about Alstom taking on so we're clear. 3 the integration piece, or could have, do you mean as 4 it relates to the rolling stock and the signalling 5 system, or the broader integration of --6 YVES DECLERCO: It was a dream of the 7 management that we'd have to involve our system 8 organization which are all our people, really expert 9 in making all this kind of integration between system, 10 finding the right balance and so on. And really 11 understanding what is the system integration. 12 It was a dream to us, so it didn't 13 Even Jacques Berigeron was very good engineer, 14 very skilled and very knowledgeable. But he was a 15 rolling stock expert, not a system integrator. And he 16 was globally comprehensive with us, when we had the 17 interface issue with Thales and difficult to 18 arbitrate. But globally, we have never seen a global 19 system integrator. And each time we are talking 20 relationship between rolling stock and maintenance. 21 And then many time I've seen, I 22 remember OLRT-C trying to push us to discuss directly 23 with the maintenance team. And instead of managing 24 that properly, no, they are claiming together, sort 25 of.

1	CHRISTINE MAINVILLE: Did Alstom ever
2	make a pitch to OLRT-C that it could play that role?
3	YVES DECLERCQ: I don't know.
4	CHRISTINE MAINVILLE: Okay. But
5	Alstom was never approached to do it?
6	YVES DECLERCQ: I know for the system,
7	no. I think the idea didn't come through them. I
8	think they didn't understand the issue, and yet
9	they do not understand the issue.
10	CHRISTINE MAINVILLE: Okay.
11	YVES DECLERCQ: And the need for such
12	a system integration.
13	CHRISTINE MAINVILLE: I do want to ask
14	you about the sufficiency of the budget, the
15	affordability in this case.
16	What is your view on that in terms of
17	Alstom's work on the project?
18	YVES DECLERCQ: For our scope?
19	CHRISTINE MAINVILLE: Your scope, yes.
20	YVES DECLERCQ: What can I say? The
21	way Alstom is managing contract is whatever the final
22	situation we are doing the job.
23	We don't have some strategy to try
24	to of course, we don't if it is not in past part
25	of the contract, we're not to do our job for free, for

1 sure. 2 But when it is clearly on our side, 3 and when we have issues to fix, we are working and we 4 are -- we are fixing the issue, whatever is the 5 cost. At the least cost possible, but we are 7 not in opposition, that's why our -- really are the 8 mindset are really once again, the customer 9 satisfaction. And the way we organize, customer 10 director from the commercial team watching us, 11 ensuring the satisfaction of the customer, we are 12 always in the position to find the right solution. 13 I've never seen -- it's really not 14 Alstom mindset. I've seen that from other 15 competitors, working consortium with them. But from 16 Alstom's side, we do whatever is needed. 17 After, we can blame ourself for how it 18 was costed, and the issue, but this is another topic. 19 CHRISTINE MAINVILLE: I think Judith 20 may need clarification. 21 YVES DECLERCQ: I'm just telling so 22 that when we are running a contract, our main focus is 23 customer satisfaction. So if we have issue that was 24 not expecting, and not entering into our budget, our 25 priority is to fix the issue and to satisfy the

1 customer. 2 We have no -- and I think the OLRT-C 3 way of working, I think it was clear that they were 4 hiring people at very limited number of roles. 5 didn't have people managing the acceptance of the 6 trainer. So we have no -- very weak counterpart. 7 CHRISTINE MAINVILLE: So you have 8 concerns about OLRT-C's resourcing of the project? YVES DECLERCO: Yeah, yeah. 10 CHRISTINE MAINVILLE: And so did you 11 have a view on the budget for the broader project? 12 YVES DECLERCQ: No. 13 CHRISTINE MAINVILLE: Okay. 14 there any concerns with sharing information with 15 Thales on the basis of it being a competitor during 16 the project? 17 YVES DECLERCO: Not really. On our 18 side, it's not an issue because Thales is not building 19 vehicles. Building vehicles. 20 CHRISTINE MAINVILLE: I just want to 21 ask you about the supply chain. I take it that there 22 had to be quite a few changes to Alstom's usual supply 23 chain for this project. 24 YVES DECLERCQ: Yes, because of the 25 Canadian content, yes.

1 CHRISTINE MAINVILLE: And was it as a 2 result of the Canadian content, or was it because the 3 trains were going to be built in Ottawa? 4 YVES DECLERCO: Yes. The decision to 5 build the train in the maintenance facility in Ottawa 6 was taken in August 2012. 7 CHRISTINE MAINVILLE: And that 8 decision was because of the Canadian content 9 requirement? 10 YVES DECLERCO: Yes. Because the only 11 way to achieve a -- and the skill base in Canada is 12 quite poor, so it's not able to -- it's not possible 13 to meet. 14 At the whole of that time, it was not possible to meet Canadian content without having a 15 16 final assembly in Canada. 17 CHRISTINE MAINVILLE: So had there not 18 been that requirement, where would assembly have taken 19 place? 2.0 YVES DECLERCQ: In our initial plan, 21 as the product was designed to meet American standard 22 and to analyze American market, the plan was to have a 23 serial production in our facility in U.S.A., in 24 Hornell, New York. 25 CHRISTINE MAINVILLE: And that was as

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    a result of the U.S. standards requirements?
 2.
                     YVES DECLERCO:
                                     Yes.
 3
                     CHRISTINE MAINVILLE:
                                           Had there not
 4
    been that requirement, would you have built the
 5
    vehicles in France, the series?
 6
                     YVES DECLERCO: Yes.
                                           Probably, yes.
 7
                     CHRISTINE MAINVILLE:
                                           And so even if
 8
    ultimately the vehicles have to be delivered in
 9
    Ottawa, you might still build them quite far away?
10
    wouldn't --
11
                    YVES DECLERCO: We are talking -- it's
12
    a point of [indiscernible]. We had some more standard
13
    product built in France for the Australian market, but
14
    it's part of a standard range. Here we are talking
15
    about specific product meeting North American
16
    standard, it was unfortunately, we were not successful
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    in the U.S. market, and the U.S. market was not the
18
    one we expected when we launch a product and it didn't
19
    happen.
20
                     But our plan was a new product to be
21
    assembled in North America. So we were in that
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    vision, and of course for the purpose of the Canadian
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    content, the final assembly was done in Ottawa.
24
                     Thanks also to our modular concept
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    coming from the Citadis DNA, I would say like that, so
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1 that the final assembly is only bolting the 2 components, so there's no welding, no painting at the 3 end, so it's easy to have a remote facility to make 4 the final assembly -- the last part is that, our 5 vehicle design, the Citadis vehicle design is such 6 that you can set up remote factory outside of your 7 usual base. Because the final assembly of the vehicle 8 is only a bolting or riveting parts, and we have no complex process like welding and painting to put all 9 10 the train together. 11 CHRISTINE MAINVILLE: So what's your 12 view as to the suitability of the MSF, the maintenance 13 facility in Ottawa for vehicle assembly? 14 YVES DECLERCO: It was -- we find also 15 it was part of the discussion, it was ready on time. 16 What was missing for long time was the test bay. 17 Because we were able to start the 18 assembly more or less as expected. And it run not too 19 bad, because the initial production was done not quite 20 in alignment with the schedule. But we have issue at 21 the final test. 22 Also, we discover lately some quality 23 issue, and that come to a point where in fact we have 24 to have local employee and the local market in Ottawa 25 is poor of rolling stock assembly expert, skilled

1 people. 2. So I think we all realize that 3 production level was little bit behind our standard 4 process, because of a lack of trained and skilled 5 people. 6 CHRISTINE MAINVILLE: Trained, skilled 7 people, yeah, okay. 8 So were there any -- was building the 9 trains or assembling the trains at MSF in Ottawa seem 10 to be a risk at the outset of the project? 11 YVES DECLERCO: I think we -- I cannot 12 Yes, it's a risk, it was a risk because we say, "no". 13 are far from our usual base, yes, for sure. But I 14 think the most critical issue we find is probably the 15 level of quality and retrofit we are talking about, 16 this coming also from -- I think it's a risk, but it 17 was well handled. And the main consequence is the 18 level of retrofit, we have to stick to handle on the 19 existing fit. 20 CHRISTINE MAINVILLE: Right, okay. 21 And is that because of the different uses to which the 22 MSF is being put? So that --23 YVES DECLERCO: No, it's not linked to 24 MSF, it's linked to the remote -- to the fact that we 25 are in Ottawa area, and we have no people skilled in

1 industry business. So we use, I think, Randstad as 2 agency to provide people, but they were not trained or 3 prepared to do some manufacturing or vehicle assembly. 4 CHRISTINE MAINVILLE: Okay. So more 5 about the labour issue. 6 What about the supply chain, did that 7 end up being a problem? 8 YVES DECLERCO: I don't think so. Т 9 think it -- well, not worse than can be sometime on 10 some other project, no. 11 CHRISTINE MAINVILLE: There weren't 12 quality concerns that resulted from that? 13 YVES DECLERCO: We had some component, 14 some critical component that we bought from Canada, 15 like the auxiliary converter. 16 CHRISTINE MAINVILLE: The what, sorry. 17 YVES DECLERCO: The auxiliary 18 converter, which is one of the critical operation 19 issue. 20 After that, we have some supplier, but 21 I think the issue we have, we have issue -- we had a 22 lot of choice, Wabtec for doors and brakes. 23 But, you know, when I compare what 24 happened to my new colleague of former Bombardier with 25 Toronto LRV, they face the same issues.

1 But am I right CHRISTINE MAINVILLE: 2 that given that this was the first project, LRV 3 project for Alstom in North America, there was --4 Alstom had to build this new supply chain for this 5 project? 6 YVES DECLERCO: Yes. But for me, it 7 was not really -- we use a well-known company to handle 8 the supply chain, storage, and so on. So the supply 9 chain itself didn't -- was not a problem. We have 10 supplier issues, and similar to what happen in 11 the market. And when I compare the number of issue we 12 get from Ottawa, and the one Alstom done, Bombardier 13 and Alstom get on the Toronto LRT project, it was 14 similar. 15 CHRISTINE MAINVILLE: It didn't overly 16 slow things down. 17 YVES DECLERCO: After that, each time 18 you have issue with risk of retrofit, risk of delays, 19 so another cost, so... 20 And it's globally the management of 21 it, but it's part of -- not business as usual, but, 22 yes, it is business as usual. It's more the 23 accumulation of -- in Ottawa, in particular, it's a 24 new system. On top of that, poor management of the 25 system.

1 And I think the main difference we are 2 facing, when I compare with Eglinton project, which 3 was very late, much late than this, that's 4 unacceptable, but it's still not in service because of 5 a system error. 6 CHRISTINE MAINVILLE: Right. 7 YVES DECLERCO: And maintenance the 8 So it's complex. same. 9 CHRISTINE MAINVILLE: I just want to 10 Was this new for Alstom to use a be clear. 11 maintenance facility like the one in Ottawa to 12 assemble trains, or had it been done previously? 13 YVES DECLERCO: It was not new to have 14 a remote facility. But, yes, formally, yes, it was 15 But I think -- what can I say? new. 16 But for me, the installation of the 17 production line and for the vehicle assembly, ran 18 quite smoothly. Where we were really impacted, was 19 the lack of availability of the test bay for the final 20 set of tests. And then after, of the track for the 21 final track test. 22 CHRISTINE MAINVILLE: Okay. The test 23 bay being within the MSF? 24 YVES DECLERCO: Yes. It's just a 25 dedicated track, enclosed with, it is -- the same

1	means that are used to retest the vehicle after
2	maintenance operation, it's just a track secured with
3	fences, and with the overhead catenary, so you can
4	test all the system, including high power.
5	So the high power was available very
6	late, so we have accumulate a bunch of vehicle
7	assembled, but we were not able to test them and to
8	see we had issue. That also induce a problem, because
9	in fact, we have hidden problems. And as we were not
10	able to test them and to catch them by the test,
11	we are continuing to bid wrong design in fact.
12	CHRISTINE MAINVILLE: Just to be sure
13	I got the right word, you said the "high power"?
14	YVES DECLERCQ: Yes, high power
15	tension.
16	CHRISTINE MAINVILLE: High power,
17	okay. Can you just explain, there was a change to the
18	assembly location for LRV 1 and 2.
19	YVES DECLERCQ: Yes.
20	CHRISTINE MAINVILLE: Which were
21	originally intended to be built in France, correct?
22	YVES DECLERCQ: Yes.
23	CHRISTINE MAINVILLE: Can you explain
24	why they were moved initially to the United States?
25	YVES DECLERCQ: It was a management

1	decision, top management decision.
2	CHRISTINE MAINVILLE: Do you know what
3	informed it?
4	YVES DECLERCQ: What informed?
5	CHRISTINE MAINVILLE: The decision.
6	YVES DECLERCQ: We have some internal
7	debate at the end, the manager in fact, it was a
8	balance between the main concern was about the
9	supply chain.
10	CHRISTINE MAINVILLE: The supply
11	chain, okay.
12	YVES DECLERCQ: And the risk to build,
13	again, a French vehicle with French part. And to have
14	to redo everything with Canadian part or American part
15	once serial production start.
16	CHRISTINE MAINVILLE: Right.
17	YVES DECLERCQ: So it was want one
18	drawback to have the supply chain American supply
19	chain organization involved at the beginning. And it
20	was in our discussion about having the test vehicle
21	close to the engineering centre.
22	And there was debate, and the top
23	management decided to prefer them to manage first the
24	supply chain risk.
25	CHRISTINE MAINVILLE: The supply chain

1 risk. And why was that assessment not done earlier? YVES DECLERCO: I cannot talk so. 2. 3 CHRISTINE MAINVILLE: And there was 4 validation testing that was planned for -- with those 5 two vehicles initially, correct? Early validation 6 testing in France. 7 YVES DECLERCO: Yes. 8 CHRISTINE MAINVILLE: And how 9 important would that be from Alstom's perspective, to 10 be able to perform that validation testing before 11 building the rest of the fleet? 12 YVES DECLERCO: The reason there 13 was -- I was telling this, to anticipate issues, 14 functional issue that can be corrected earlier. 15 So we did some test in Hornell with 16 trainset one, so I think at this level -- because in 17 France, we were not able to run at full speed. So the 18 condition was similar for the initial test. 19 CHRISTINE MAINVILLE: In the United 20 States, okay. But Thales was supposed to be involved, 21 I understand, in the original plan. 22 YVES DECLERCO: It was, yes, yes. The 23 original plan was to go to Pueblo [sic]. 24 CHRISTINE MAINVILLE: Colorado? 25 YVES DECLERCQ: Yeah.

1 So Thales would CHRISTINE MAINVILLE: 2. have been involved there as well? 3 YVES DECLERCO: 4 CHRISTINE MAINVILLE: But then that 5 got moved to Ottawa? 6 YVES DECLERCO: There was a 7 discussion, and a strong push also from OLRT-C, and I 8 understood from the City, to have the vehicle running 9 in Ottawa rather than in Colorado. 10 To do validation CHRISTINE MAINVILLE: 11 testing? 12 YVES DECLERCO: The validation test 13 and also to -- I remember that when we had the 14 discussion, it was said by the OLRT-C representative, 15 that the City wanted to have the vehicle visible in 16 Ottawa, running in Ottawa. So to communicate about 17 LRV system in construction activity and so on, so 18 forth. 19 CHRISTINE MAINVILLE: So that's your 20 understanding of why there was a push to move that --21 YVES DECLERCO: So we have discussion 22 of the implementation, of course, from us and from 23 Thales's perspective, it was less expensive to stay in 24 Ottawa than going to Colorado. But we discuss anyway 25 on the condition what we could do on the test track,

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so the gauge was not right.

1 and so on before. 2. But I think it was a common interest 3 to stay in Ottawa. But we were ensuring and 4 discussing about the capability to perform tests on 5 the main line and the interference from what we want to And so that was issue, I think the do and so on. 7 OLRT-C commit on track condition, and in the end, it 8 was not met. We have a lot of issue. CHRISTINE MAINVILLE: When Alstom 10 ended up agreeing to move that testing to Ottawa, what 11 was its expectation as to when it would have the track 12 it needed to run those tests? 13 YVES DECLERCO: We wanted to have a 14 certain length of track to be able to perform all our 15 dynamic and traction braking tests. We wanted to be 16 able to run a certain portion of length of track, but 17 as a portion to be able to perform tests, the 18 capability to go through a station without limitation --19 at higher speed than normally, just because of the need 20 of the test in safe condition. 21 This kind of thing. 22 So there was a lot of condition, OLRT-23 C agreed on that. At the end, we had a lot of issue. 24 First of all, the track was not laid down correctly,

I found there was a lot of

1 our work safety condition. I think it was difficult 2 to achieve what was reasonably expected and so on. So 3 we -- from what I remember, but I remember well the 4 negotiation, because I was back and I was following 5 the project opposition. But I don't remember all the 6 detail of the test, but it was longer than expected, 7 and much more difficult than expected so ... 8 CHRISTINE MAINVILLE: So when were 9 these negotiations taking place, if you recall, 10 approximately? 11 YVES DECLERCO: It was around 12 mid-2016. 13 CHRISTINE MAINVILLE: That the 14 decision was made to move the testing to Ottawa? 15 YVES DECLERCO: Yeah. 16 CHRISTINE MAINVILLE: And when did 17 Alstom expect to have the track available to it? 18 I don't remember. YVES DECLERCO: 19 Quite, almost immediately. 2.0 CHRISTINE MAINVILLE: How delayed was 21 it ultimately? 22 YVES DECLERCO: I don't remember. Τ 23 remember well the negotiation, but I think it took 24 sometime. 25 CHRISTINE MAINVILLE: Who were the

1 negotiations with? 2. YVES DECLERCQ: On our side, it was 3 with our Region President, Jerome Wallut at that time. 4 I remember the customer -- I don't remember all the 5 For sure, Nadia Zaari was also part of the... 6 CHRISTINE MAINVILLE: And was the City 7 in the room for these negotiations? 8 YVES DECLERCQ: No, no. The City was 9 not in the room. When I say -- I quote the City, so 10 it's OLRT-C say it. And I have no evidence that the 11 City really said that. It's true, but they were not 12 part of the discussion. 13 CHRISTINE MAINVILLE: And are you able 14 to say what impact that had, the inability to do those 15 tests on --16 YVES DECLERCO: I don't remember. 17 don't remember exactly the time lost due to the lack 18 of readiness of the track. But, no, I don't know, I 19 cannot say. But I think it's an order of magnitude of 20 six months to one year or something like that on the 21 achievement of the test. 22 But after that, at some point all the 23 issues are tried to be fixed. You have parallel 24 delay, and you have -- it's difficult to -- I didn't 25 have a detail schedule to ensure that.

1 CHRISTINE MAINVILLE: It would have 2 resulted in retrofits done at least? 3 YVES DECLERCO: Probably. The later 4 you are doing the test, and integration tests, also, 5 but as part of the -- the point you have to understand 6 that once again, all the work could have been done in 7 France, was done in U.S.A. We cannot do more. 8 The interest was to run at high speed, 9 and so we need anyway a test facility. And a test 10 facility with a track laid down as in Ottawa. 11 CHRISTINE MAINVILLE: Sorry, the test 12 facility? 13 YVES DECLERCO: The test facility 14 should have track laid down like in Ottawa. 15 As far as I remember, it was part of 16 the decision. I'm not sure if the Pueblo track was 17 really laid down as Ottawa. Because it is very 18 important about the type of rail, the cant of rail, and 19 things like that, to have the right track, wheel and 20 track interface condition. 21 That was also part of the decision to 22 stav there. And those tests, you have to do it on the 23 representative test facility with a similar condition. 24 So I think, I'm not sure Pueblo was 25 able to provide all of this. So we find more or less

1 to this conversation, that the best place to achieve the final dynamic test and integration status was 3 Ottawa site. 4 CHRISTINE MAINVILLE: Okay. We've 5 gone over time. I just want to ask you if in 6 hindsight there's anything else, other than what 7 you've spoken to already, that you would have done 8 differently, or that Alstom should have provided for 9 to avoid the issues, in particular, the breakdowns and 10 derailments that the system encountered? 11 YVES DECLERCQ: I think the proper 12 preparation of the service start would have been 13 useful. But because when you look at all the issues, 14 also a lot of issue in the, what was not --there was 15 not a proper hookup of the service as well, I think 16 independently. 17 The switch from nothing to full 18 service and no busses was very critical. Usually in 19 such new system, after the trial test, you have 20 integration period. Because globally, okay, the 21 performance are not the best we achieve on a new 22 system, but I'm not sure they are so bad. 23 What is critical is what has been 24 introduced by the press and the integration of the 25 system it was not smooth -- nothing was anticipated

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- also by the City on now to introduce and make the transition with the bus system.
- So immediately, I think the first
 months of operation, we have crews on the platform,
 more than they are strike in Paris.
- 6 CHRISTINE MAINVILLE: You had what on 7 the Paris?
- 8 YVES DECLERCQ: They are strike in9 Paris quite often.
 - So more people on the platform, and so there was something wrong in the flow of busses coming to tubes, which were saturated, and not able to handle the crowd. So this has created, start to create a bad press. And which of course I will not excuse the issue we had later on, and we have some very critical issues. But at the point we are today, I think the vehicle operating every day. We have the right number of vehicle, I've been several time on it. I think the service is quite smooth. And without say -- and so the way it has been still set up, and the way we have not been able to probably, collectively and probably Alstom has some responsibility on that. But I think that there was not a teamwork also at OLRT-C or RTM team.

Everything come too fast into claim,

1 and not just looking at the situation, finding the 2 best technical solution, and then after we managing the 3 responsibility claim and so on. But it was not like 4 that, so much. 5 And for sure, we are committed, we 6 want to have this project as a success, because we 7 have sold the same vehicle in Toronto, and we want to 8 have it successful for sure. It's very key for us. 9 CHRISTINE MAINVILLE: We've gone well 10 over time, thank you. I wonder if anyone has a 11 question that needs -- well, that needs to be asked? 12 MICHAEL VALO: No, that's fine. 13 CHRISTINE MAINVILLE: We can go off 14 record. -- Proceedings Concluded at 12:31 p.m.

1	COURT REPORTER CERTIFICATE
2	
3	I, JUDITH M. CAPUTO, RPR, CSR, CRR,
4	Certified Shorthand Reporter, certify:
5	That the foregoing proceedings were taken before me at
6	the time and place therein set forth;
7	That the statements of the
8	presenters and all comments made at the time of the
9	meeting were recorded stenographically by me and
10	transcribed at my direction;
11	That the foregoing is a Certified
12	Transcript of my shorthand notes so taken.
13	
14	
15	Dated this 31st day of May, 2022.
16	
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18	feedett 4. Paper, Con.
19	Jacobse 1. (Specify 1)
20	NEESONS, A VERITEXT COMPANY.
21	PER: JUDITH M. CAPUTO, RPR, CSR, CRR
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25	

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