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<p>1 November 3, 2015  2 (9:04 a.m.)  3 CHAIRMAN:  4 Q. Are there any preliminary matters?  5 MS. GLYNN:  6 Q. No, there is not, Mr. Chair.  7 CHAIRMAN:  8 Q. I might be getting the hang of this. Another  9 30 or 40 days of hearings. Mr. O'Brien, sir,  10 you're on.  11 MR. PHILLIP DIDOMENICO  12 MR. JOHN ATHAS  13 CROSS-EXAMINATION BY MR. O'BRIEN (CONT'D)  14 MR. O'BRIEN:  15 Q. Good morning, gentlemen.  16 MR. DIDOMENICO:  17 A. Good morning.  18 MR. ATHAS:  19 A. Good morning.  20 MR. O'BRIEN:  21 Q. When we left yesterday, we were talking about  22 the black start issue and the decision to use  23 Hardwoods as an interim measure for Hydro, and  24 I just wanted to get a little bit of  25 clarification. You spoke about the difference</p>	<p>1 MR. DIDOMENICO:  2 A. That's my understanding as well.  3 MR. O'BRIEN:  4 Q. That's your understanding, okay, and I wanted  5 to know just in terms of it's indicated  6 yesterday that you had spoken with individuals  7 at Hydro in terms of your preparation for  8 preparing your report. I wonder whether you  9 could provide us with an undertaking to  10 provide us who you spoke with, and overnight,  11 I assume, you haven't taken that any further,  12 have you?  13 MR. DIDOMENICO:  14 A. No, we haven't. We've had conversation, but  15 we haven't.  16 MR. O'BRIEN:  17 Q. I'd ask you for an undertaking to provide that  18 information, and it is important, I take it,  19 from your point of view to know who those  20 individuals are so that you know when you're  21 looking at your review here, it's important to  22 look at who was making the decisions at the  23 time in question, is that right?  24 MR. DIDOMENICO:  25 A. Certainly.</p>
<p>Page 2</p> <p>1 between black starting, I guess, the Avalon  2 Peninsula versus the Holyrood plant. Can you  3 give me a little bit more information, just  4 sort of what you mean by that, the difference  5 between those two?  6 MR. DIDOMENICO:  7 A. The term "black start" per se, is used to  8 reference the ability of a specific generator  9 to start independent of the grid. That's not  10 to be confused with the ability to restore a  11 region.  12 MR. O'BRIEN:  13 Q. Okay.  14 MR. DIDOMENICO:  15 A. So in other words, the Avalon Peninsula was  16 never left without the ability to restart the  17 electric system. Holyrood was left without  18 the on-site ability to restart.  19 MR. O'BRIEN:  20 Q. Okay, and that's what I understood to be your  21 evidence, and I just wanted to confirm that in  22 terms of the Board's concern here and the  23 historical concern with respect to this  24 matter, we're really focusing on Holyrood and  25 the on-site black start.</p>	<p>Page 4</p> <p>1 MS. GLYNN:  2 Q. The undertaking is noted on the record.  3 MR. O'BRIEN:  4 Q. Ms. Greene spoke with you about the UFOP  5 percentages of 26 percent for Hardwoods  6 yesterday.  7 MR. DIDOMENICO:  8 A. Yes.  9 MR. O'BRIEN:  10 Q. Would you agree that that's an important thing  11 for Hydro to have looked at at the time in  12 terms of the availability of Hardwoods as a  13 black start alternate measure?  14 MR. DIDOMENICO:  15 A. Yes.  16 MR. O'BRIEN:  17 Q. And you mentioned as well that - the 26  18 percent, can you break that out for me? I  19 understand you haven't looked at it, but you  20 indicated that that 26 percent, you thought  21 that probability dealt with the entire two  22 units, is that right?  23 MR. DIDOMENICO:  24 A. To be clear, the unit, as I understand it,  25 basically has two engines and one generator.</p>

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<p>1 It's one unit, two engines, one generator.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay, sure.</p> <p>4 MR. DIDOMENICO:</p> <p>5 A. It can operate with just one engine, so at 50</p> <p>6 percent load - to show you an example of how</p> <p>7 that impacts the UFOP statistic, if only one</p> <p>8 engine were operational 100 percent of the</p> <p>9 time for the year, the other one not available</p> <p>10 at all, the unit would have a 50 percent</p> <p>11 forced outage number, but it still would be</p> <p>12 available 100 percent of the time to provide</p> <p>13 black start.</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. Okay. So you would need - I take it you're</p> <p>16 saying you would need both engines to be out</p> <p>17 for it to be not available for black start?</p> <p>18 MR. DIDOMENICO:</p> <p>19 A. Correct.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. That's your - okay, and that would be</p> <p>22 something that Hydro ought to have looked at</p> <p>23 at the time of making their decision?</p> <p>24 MR. DIDOMENICO:</p> <p>25 A. It's something I would have looked at, yes.</p>	<p>1 again, same type of scenario?</p> <p>2 MR. DIDOMENICO:</p> <p>3 A. Same type of scenario could have occurred</p> <p>4 certainly.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. And would it be more likely that if that</p> <p>7 scenario occurred, it would occur in the</p> <p>8 winter months for transmission to be out?</p> <p>9 MR. DIDOMENICO:</p> <p>10 A. From a weather perspective, certainly weather</p> <p>11 is a major contributor to forced outage</p> <p>12 situations like that, yes.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. And when demand is high?</p> <p>15 MR. DIDOMENICO:</p> <p>16 A. A combination of the two, primarily weather.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. And what's the - just so I understand, what's</p> <p>19 your opinion as to the benefit of on-site</p> <p>20 black start, what are the actual benefits of</p> <p>21 that?</p> <p>22 MR. DIDOMENICO:</p> <p>23 A. Well, as I believe we've discussed, the</p> <p>24 primary benefit for Holyrood is the ability to</p> <p>25 stay in a warm condition so that when the</p>
<p>Page 6</p> <p>1 MR. O'BRIEN:</p> <p>2 Q. And do you know if that had occurred, if that</p> <p>3 was looked at?</p> <p>4 MR. DIDOMENICO:</p> <p>5 A. I don't know.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. Okay. In terms of the reasonableness of this</p> <p>8 option of Hardwoods as an interim measure,</p> <p>9 would you agree that consequences are</p> <p>10 appropriate for Hydro to look at from a</p> <p>11 reliability perspective?</p> <p>12 MR. DIDOMENICO:</p> <p>13 A. Could you restate that, please?</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. Okay, in terms of whether or not it's a</p> <p>16 reasonable approach, would Hydro had to have</p> <p>17 considered what the possible consequences</p> <p>18 would be of not having a black start on site?</p> <p>19 MR. DIDOMENICO:</p> <p>20 A. Certainly.</p> <p>21 MR. O'BRIEN:</p> <p>22 Q. And I believe you agreed with me yesterday</p> <p>23 that Hydro ought to have known that the</p> <p>24 transmission was out in '94, and that would</p> <p>25 have been a situation that could have occurred</p>	<p>Page 8</p> <p>1 transmission system does become available, and</p> <p>2 the distribution system for that matter, when</p> <p>3 they're both available, power can be restored</p> <p>4 in a more timely fashion rather than starting</p> <p>5 the warming process.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. And you avoid extended outages as a result of</p> <p>8 that, is that right?</p> <p>9 MR. DIDOMENICO:</p> <p>10 A. If by extended you mean something in the</p> <p>11 vicinity of 11 hours, yes.</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. Okay, and that's what we saw sort of in</p> <p>14 January of 2013, a more extended outage.</p> <p>15 MR. DIDOMENICO:</p> <p>16 A. Yes.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. And that was a conscious decision, I believe</p> <p>19 you had indicated in your report, that Hydro</p> <p>20 appears to have taken, to take that risk?</p> <p>21 MR. DIDOMENICO:</p> <p>22 A. To take that risk that the combination of</p> <p>23 events were unlikely to occur, but, yes.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. I wonder if we could have a look at the</p>

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1 transcript from yesterday at page 218, and  
 2 it's right at the end when we were finishing  
 3 up we had a discussion. If we go 218, and  
 4 line 7, I say, "And when you say taking the  
 5 significant risk that was going to be taken -  
 6 sorry, I shouldn't say significant, taking a  
 7 risk, it was involving a risk that had already  
 8 come about, Hydro had already seen it happen  
 9 before when transmission was out", and Mr.  
 10 DiDomenico, you indicated that, "The peninsula  
 11 was isolated from the rest of the grid, yes".  
 12 "So it's not a hypothetical risk in that  
 13 context"? "No, no, not in that context. It's  
 14 a possibility it might occur, but it's a very  
 15 low possibility", and then I asked you this  
 16 question, "And how much of a risk is necessary  
 17 before you think steps had to be taken". "You  
 18 know, that's a fundamental - throughout our  
 19 report, we talk about engineering judgment",  
 20 and this is what I want to ask you about, "as  
 21 to what's going on. There's a judgment call.  
 22 I can't give you a number. All I can tell you  
 23 is that it's a judgment call based on all the  
 24 factors that are surrounding the situation,  
 25 and outside of coming in, whether it's for a

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1 month or whether it's for a year, it's not  
 2 going to get to the level of understanding of  
 3 the system and its particular nuances and the  
 4 like, and the weather and everything else that  
 5 goes into it. The need to go into that  
 6 judgment and some of that is judgment that  
 7 gets integrated into the brain in some way,  
 8 shape, or form, to make that informed decision  
 9 without being quantified for a machine to do.  
 10 So, I mean - so that's - that's why we can use  
 11 the word "reasonable" is that the process of  
 12 relying on skilled people with knowledge of  
 13 the system and the like to make a reasonable  
 14 decision is what the very basis of our report  
 15 is". I want to ask you about sort of this  
 16 idea of relying on skilled people with  
 17 knowledge of the system, and I wonder whether  
 18 or not I'm getting this right, is it that  
 19 you're saying that the Board can take comfort  
 20 from the fact that there Hydro would have had  
 21 skilled people with knowledge of the system  
 22 making this type of a decision?  
 23 MR. DIDOMENICO:  
 24 A. Yes.  
 25 MR. ATHAS:

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1 A. Yes.  
 2 MR. O'BRIEN:  
 3 Q. And that's what I understood from your  
 4 comments there. I wonder can we pull up  
 5 Information 21, please. Is that the right  
 6 one? I'm sorry, I'm looking for the October  
 7 22nd report. I thought that was Information  
 8 21. Bear with me.  
 9 MR. DIDOMENICO:  
 10 A. Sure.  
 11 MR. O'BRIEN:  
 12 Q. 29, I'm sorry, I apologize. I'm not sure  
 13 whether or not you've had an opportunity to  
 14 review this recent report, gentlemen. It's a  
 15 report by Liberty Consulting Group regarding  
 16 there was some outages on March 4th of 2015.  
 17 (9:15 a.m.)  
 18 MR. DIDOMENICO:  
 19 A. I have not.  
 20 MR. O'BRIEN:  
 21 Q. And I presume it, obviously, wouldn't have  
 22 been part of your review for the purposes of  
 23 preparing your opinion, but I wanted to refer  
 24 you to some of the comments in this report in  
 25 the context of judgment of management, and I

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1 wonder can we turn to page 5 of that report,  
 2 and under paragraph 3(a), in discussing the  
 3 root cause of the March 4th events, if we look  
 4 to the second paragraph, "Liberty developed  
 5 concerns about Hydro's operating culture early  
 6 in its review of the January 2014 events.  
 7 Initial conversation with Hydro personnel  
 8 disclosed that Hydro did not view the need to  
 9 shed load during the supply shortage as a  
 10 particularly unusual event. Operators felt  
 11 that they remained in sufficient control of  
 12 the system and did not declare an emergency.  
 13 Liberty's experience indicates that the need  
 14 to resort to rotating outages to compromise an  
 15 exceedingly rare once-in-a-career event".  
 16 First of all, I wanted to ask you whether or  
 17 not you agree that rotating outages would be  
 18 sort of a once-in-a-career event?  
 19 MR. DIDOMENICO:  
 20 A. I'm not really prepared to comment on this. I  
 21 mean, this isn't what we're here to testify  
 22 to.  
 23 MR. O'BRIEN:  
 24 Q. That's fine, if you can't comment on that. I  
 25 did want to ask you further, though, where it

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<p>1 says, "Many system operators never experience 2 it. Further, when events begin to require 3 special measures, caution dictates concern and 4 a special preparedness for identifying next 5 contingencies that might take major sectors or 6 even the whole system down. Hydro's approach 7 does not sufficiently consider such 8 possibilities because the ability to shed even 9 more load remains as the primary response". 10 What I want to ask you about is the next line, 11 "Liberty's preliminary report on the January 12 2014 events discussed a culture more tolerant 13 of rotating outages". Now if we assume, and 14 if you take that as an assumption that there's 15 a culture of being tolerant of rotating 16 outages, is that something that when you look 17 back and you look at your opinion here in 18 terms of whether the Board should take some 19 reasonable comfort in the judgment of 20 management, is that something that would 21 change your opinion, cause you to reconsider 22 your opinion in any way? 23 MR. DIDOMENICO: 24 A. I guess, I'm having trouble coming up with a 25 response because I'm not prepared to address</p>	<p>1 outages is a bad idea. It depends, it depends 2 on the circumstances, it depends on a much 3 bigger picture. That's what I'm trying to 4 communicate. 5 MR. O'BRIEN: 6 Q. Okay. 7 MR. ATHAS: 8 A. And having made the statement yesterday, I 9 completely agree with my colleague. 10 MR. O'BRIEN: 11 Q. I have no further questions for this panel. 12 CHAIRMAN: 13 Q. I think we're over to Mr. Johnson. 14 CROSS-EXAMINATION BY JOHNSON, Q.C.: 15 JOHNSON, Q.C.: 16 Q. Thank you. Gentlemen, just a couple of sort 17 of housekeeping matters, if I could. My 18 friend, Mr. O'Brien, asked if you could 19 undertake to provide - 20 MR. DIDOMENICO: 21 A. Excuse me, I'm having a little difficulty 22 hearing you. 23 JOHNSON, Q.C.: 24 Q. Sorry, that's my fault. My friend, Mr. 25 O'Brien, when he started out this morning</p>
<p>1 this issue. It's a hypothetical, it's 2 hindsight it's someone else's opinion. I 3 don't know what to say. You're asking me that 4 assuming these people are incompetent, are 5 they incompetent. 6 MR. O'BRIEN: 7 Q. No, I'm - 8 MR. DIDOMENICO: 9 A. I'm not sure I'm following the question. 10 MR. O'BRIEN: 11 Q. I'm asking if your opinion is that the Board 12 can take some comfort in the management of - 13 in that there are reasonable skilled people 14 making judgments on these types of issues? If 15 those individuals are more tolerant of 16 rotating outages, is that something that would 17 change your opinion in any way? 18 MR. DIDOMENICO: 19 A. In and of itself, just that thought, there's 20 not enough information there. I don't know 21 why they're accepting of more rotating 22 outages. It's not a blanket statement. Every 23 system is very different, every system has its 24 peculiarities. I can't sit here and say, 25 generally speaking, tolerating rotating</p>	<p>1 asked if you could undertake to provide the 2 participants in the discussions that you had 3 had with Hydro, and I'm wondering if you could 4 slightly add to the undertaking, perhaps as a 5 new undertaking, but to indicate what the 6 dates of those discussions were held as well, 7 and a further undertaking that I'd ask for is 8 if you could undertake to provide a list of 9 the documentation/information that you 10 received from Hydro on which you carried out 11 your assignment in this proceeding? 12 MR. DIDOMENICO: 13 A. Are you looking for the specific documents or 14 just titles? 15 JOHNSON, Q.C.: 16 Q. Titles. 17 MS. GLYNN: 18 Q. The undertaking is noted on the record. 19 JOHNSON, Q.C.: 20 Q. I'd like to go back to the discussion - I want 21 to go back to the discussion that you were 22 having with Ms. Greene, Mr. DiDomenico, 23 yesterday, and in this regard if I could refer 24 you to page 125. In particular, starting at 25 line 9. Ms. Greene, in her question of you</p>

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<p>1 was saying, "The plan had always been to have 2 an on-site CT at Holyrood, and now, in fact, 3 when we came to use of Hardwoods, it was only 4 an interim step, they were still going to go 5 back and put black start at the Holyrood 6 plant", and you say, "I think some context is 7 necessary, if I may", and Ms. Greene says, 8 "Sure", and then you go on to say, "The issue 9 here seems to be muddled between black start, 10 area restoration. We go back and forth 11 between what we're talking about here. The 12 black start at the Holyrood plant is a portion 13 of the plant providing energy to the Avalon 14 Peninsula. It's only a portion of it. It's 15 not the plan, it's a part of the plan. So 16 we're talking about an element of the plan 17 when we say this. So in addition, as John was 18 pointing out a minute ago, when the worst 19 occurs, if Holyrood trips offline, the first 20 recourse is to start the unit based on power 21 from the grid. If that is not there, then it 22 will go to Hardwoods". Ms. Greene says, "It 23 will go to where". You say, "It will go to 24 Hardwoods as secondary", and Ms. Greene says, 25 "If there's no power from the grid, it goes to</p>	<p>1 was not until following January of 2012 that 2 Hydro put operators through training so that 3 its operators would be able to restart 4 Holyrood? 5 MR. DIDOMENICO: 6 A. I saw that, yes. 7 JOHNSON, Q.C.: 8 Q. That was new information to you that you 9 learned at this hearing? 10 MR. DIDOMENICO: 11 A. In terms of the operator training aspect, yes. 12 JOHNSON, Q.C.: 13 Q. Okay. 14 MR. DIDOMENICO: 15 A. I was aware of the fact that Hardwoods was 16 generally always being used as black start. 17 That's the conversation that we had, and that 18 they - when it became more urgent, if you will 19 - it was always a secondary need, let me put 20 it in that context. Hardwoods was not the 21 primary, Holyrood was the primary, Hardwoods 22 was the backup. When that changed, the need 23 for Hardwoods to become the primary, if you 24 will, that's when more formal documented 25 training and all the exercising it went</p>
<p>1 Hardwoods". You say, "If there's no power 2 from the grid to restart Holyrood, it would 3 use Hardwoods to do that". Now I take it, Mr. 4 DiDomenico, that it was your understanding 5 that Hardwoods had for some time been 6 designated as secondary to restart Holyrood, 7 would that be correct, when you testified 8 yesterday? 9 MR. DIDOMENICO: 10 A. It was part of the area restoration plan, yes. 11 JOHNSON, Q.C.: 12 Q. And you indicated there that it would be used 13 to restart Holyrood, right? 14 MR. DIDOMENICO: 15 A. Among other things, but, yes. 16 JOHNSON, Q.C.: 17 Q. Amongst other things, and I take it that you 18 believe that that was Hardwoods role for some 19 period of time? 20 MR. DIDOMENICO: 21 A. I do. 22 JOHNSON, Q.C.: 23 Q. You do, okay, and are you aware of Mr. 24 Henderson's testimony on the 27th of October 25 in this proceeding where he testified that it</p>	<p>1 through because they were relying on Hardwoods 2 more than what they had in the past, but they 3 had always relied on it as part of the plan. 4 JOHNSON, Q.C.: 5 Q. I see, part of the area restoration plan? 6 MR. DIDOMENICO: 7 A. Correct. 8 JOHNSON, Q.C.: 9 Q. Yes, okay, but they couldn't have been relying 10 on it as a secondary source of trying to get 11 Holyrood back up and running if they hadn't 12 trained their people to do it, right? 13 MR. DIDOMENICO: 14 A. I think - I don't think that's quite accurate. 15 I do believe that they were available, the 16 staff was available, this had been discussed 17 at least based on my conversations with the 18 Hydro folks. It's just that they reemphasized 19 the training, they rewrote procedures, they 20 basically put a greater emphasis on it because 21 it became primary rather than secondary. 22 JOHNSON, Q.C.: 23 Q. I see. 24 MR. DIDOMENICO: 25 A. But it's not like they weren't aware of that</p>

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<p>1 or they didn't know that they never thought of</p> <p>2 using it that way in the past, it's just that</p> <p>3 it was reemphasized.</p> <p>4 JOHNSON, Q.C.:</p> <p>5 Q. And, in fact, they had not been trained on it</p> <p>6 prior. You're not disputing Mr. Henderson's</p> <p>7 account.</p> <p>8 MR. DIDOMENICO:</p> <p>9 A. No, I'm not disputing Mr. Henderson's</p> <p>10 testimony, no.</p> <p>11 JOHNSON, Q.C.:</p> <p>12 Q. Now I take it that you understand that the</p> <p>13 Holyrood plant is a 490 megawatt facility?</p> <p>14 MR. DIDOMENICO:</p> <p>15 A. Correct.</p> <p>16 JOHNSON, Q.C.:</p> <p>17 Q. And I take it that you understand that it is,</p> <p>18 in fact, a critical supply source of capacity</p> <p>19 and energy on the isolated island, right?</p> <p>20 MR. DIDOMENICO:</p> <p>21 A. In the wintertime, yes.</p> <p>22 JOHNSON, Q.C.:</p> <p>23 Q. And Mr. DiDomenico, your CV states that you</p> <p>24 have extensive experience in fossil power</p> <p>25 plant engineering and operations, and I take</p>	<p>1 Q. The fossil plants that you are familiar with,</p> <p>2 including fossil plants on islands, etc,</p> <p>3 what's the longest you have seen a critical</p> <p>4 fossil plant go without its own black start</p> <p>5 capability?</p> <p>6 MR. DIDOMENICO:</p> <p>7 A. Frankly, the island communities that I've been</p> <p>8 involved with, I've seen much longer durations</p> <p>9 than what we're talking about here. The</p> <p>10 tolerance is actually far greater for issues</p> <p>11 of poor reliability.</p> <p>12 JOHNSON, Q.C.:</p> <p>13 Q. What island are we talking about?</p> <p>14 MR. DIDOMENICO:</p> <p>15 A. As an example - I guess, I'm concerned about</p> <p>16 confidentiality and whether to go there or</p> <p>17 not.</p> <p>18 JOHNSON, Q.C.:</p> <p>19 Q. Well, I think it's a fair question.</p> <p>20 MR. DIDOMENICO:</p> <p>21 A. Well, I don't think I should. I really don't</p> <p>22 because the situation I'm talking about, I had</p> <p>23 been working with the Commission related to</p> <p>24 open cases that were in play, so I'd rather</p> <p>25 not go there.</p>
<p>1 it that's the case?</p> <p>2 MR. DIDOMENICO:</p> <p>3 A. That's correct.</p> <p>4 JOHNSON, Q.C.:</p> <p>5 Q. And, I guess, your experience has all been in</p> <p>6 connection with the interconnected</p> <p>7 environment, would that be correct?</p> <p>8 MR. DIDOMENICO:</p> <p>9 A. Would you repeat that, please?</p> <p>10 JOHNSON, Q.C.:</p> <p>11 Q. Would your experience have all been in</p> <p>12 connection with facilities operating in</p> <p>13 interconnected environments?</p> <p>14 MR. DIDOMENICO:</p> <p>15 A. Not exclusively, no.</p> <p>16 JOHNSON, Q.C.:</p> <p>17 Q. Okay, which ones have not been interconnected?</p> <p>18 MR. DIDOMENICO:</p> <p>19 A. I've worked with some island communities.</p> <p>20 JOHNSON, Q.C.:</p> <p>21 Q. Some island, okay, island that had fossil</p> <p>22 plants?</p> <p>23 MR. DIDOMENICO:</p> <p>24 A. Yes.</p> <p>25 JOHNSON, Q.C.:</p>	<p>1 JOHNSON, Q.C.:</p> <p>2 Q. Was it in the United States?</p> <p>3 MR. DIDOMENICO:</p> <p>4 A. It was a territory.</p> <p>5 JOHNSON, Q.C.:</p> <p>6 Q. Territory of the United States, all right.</p> <p>7 Now Mr. DiDomenico, at one point, I understand</p> <p>8 that you carried on the role of performance</p> <p>9 and reliability coordinator for Boston Edison,</p> <p>10 and I understand from your CV that Boston</p> <p>11 Edison at that point had a fleet of 3000</p> <p>12 megawatts of fossil generating units?</p> <p>13 MR. DIDOMENICO:</p> <p>14 A. They do.</p> <p>15 JOHNSON, Q.C.:</p> <p>16 Q. Okay, and I take it that at least some of</p> <p>17 these fossil generating units would have been</p> <p>18 considered critical to the customers?</p> <p>19 MR. DIDOMENICO:</p> <p>20 A. Certainly.</p> <p>21 JOHNSON, Q.C.:</p> <p>22 Q. And in your experience, would these critical</p> <p>23 fossil plants have been equipped with their</p> <p>24 own black start capability in connection with</p> <p>25 the NERC definition, for instance?</p>

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<p>1 MR. DIDOMENICO:  2 A. We're talking changes in philosophy over the  3 years, but generally speaking, the issue is  4 not about black start at an individual plant.  5 That is part of the equation. The primary  6 focus is on area restoration and how we can go  7 about making sure we get the area restored in  8 a timely fashion. Black start is a part of  9 that, and some of the units would have been  10 designated as black start, not all of the  11 units, but some of them.  12 JOHNSON, Q.C.:  13 Q. Okay, but in terms of the - how big were these  14 - out of the fleet of 3000 megawatt fossil  15 generating capacity at Boston Edison, what  16 size units are we talking about here?  17 MR. DIDOMENICO:  18 A. There's a range. I think they range from the  19 smallest unit was in the vicinity of 120  20 megawatts, to the largest unit being something  21 north of 450 megawatts.  22 JOHNSON, Q.C.:  23 Q. Okay, so how many would have been critical,  24 such as Holyrood, to the supply of capacity  25 and energy?</p>	<p>1 A. I'm struggling with the definition of  2 "critical units", because -  3 JOHNSON, Q.C.:  4 Q. Well, let's put it this way -  5 MR. DIDOMENICO:  6 A. None of the units are unnecessary, do you see  7 what I'm saying.  8 JOHNSON, Q.C.:  9 Q. Yeah, but, I mean, for Holyrood, it's  10 particularly critical, right?  11 MR. DIDOMENICO:  12 A. It is very important to the peninsula, yes.  13 JOHNSON, Q.C.:  14 Q. Right, okay, and, I guess, what I'm asking you  15 did you have units down there with the  16 criticality of Holyrood that didn't have its  17 own independent black start capability?  18 MR. DIDOMENICO:  19 A. We didn't have the same situation.  20 JOHNSON, Q.C.:  21 Q. Okay.  22 MR. DIDOMENICO:  23 A. I do know how to answer the question.  24 JOHNSON, Q.C.:  25 Q. Okay. Now your panel, gentlemen, has been put</p>
<p>Page 26</p> <p>1 MR. DIDOMENICO:  2 A. You're asking me to remember something from  3 many years ago. I don't recall.  4 JOHNSON, Q.C.:  5 Q. Okay, but you would recall, though, I take it,  6 that each of these would have had its own  7 independent black start capability?  8 MR. DIDOMENICO:  9 A. I think we're going around in a circle here.  10 I'm saying that black start is a part of the  11 restoration plan. All the units don't have  12 black start.  13 JOHNSON, Q.C.:  14 Q. Okay.  15 MR. DIDOMENICO:  16 A. Am I answering your question? I'm trying to  17 answer your question.  18 JOHNSON, Q.C.:  19 Q. Okay, so some of them did not have black start  20 capability at all?  21 MR. DIDOMENICO:  22 A. Absolutely.  23 JOHNSON, Q.C.:  24 Q. Even the critical units?  25 MR. DIDOMENICO:</p>	<p>Page 28</p> <p>1 forward by Hydro as experts in electrical  2 utility management, planning and operations,  3 and I take it that you understand through  4 previous proceedings that by reason of being  5 called an expert, that would entitle you to  6 give opinions on matters that are before the  7 Board, and your opinions are to be of  8 assistance to the Board in understanding these  9 issues, right, do you understand that?  10 MR. DIDOMENICO:  11 A. I do.  12 MR. ATHAS:  13 A. Yes.  14 (9:30 a.m.)  15 JOHNSON, Q.C.:  16 Q. You do, okay. Now, Mr. DiDomenico, you  17 indicated yesterday that you have been  18 involved in advising utilities relating to the  19 generation fleet, their operations, the  20 management of their generation fleet, how they  21 should address various issues, including  22 operations and maintenance, right?  23 MR. DIDOMENICO:  24 A. Yes.  25 JOHNSON, Q.C.:</p>

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<p>1 Q. And, Mr. DiDomenico, would you agree that as</p> <p>2 part of advising utilities on operations and</p> <p>3 maintenance, that the concept of continuous</p> <p>4 improvement in asset management is a goal?</p> <p>5 MR. DIDOMENICO:</p> <p>6 A. Yes.</p> <p>7 JOHNSON, Q.C.:</p> <p>8 Q. And Liberty's Report, if we could turn to it</p> <p>9 for a moment, and in particular page 61, and</p> <p>10 if we go right to the bottom of that page, if</p> <p>11 we could, Liberty states at the very last two</p> <p>12 lines of that page, "Hydro has in recent years</p> <p>13 adopted a sophisticated asset management</p> <p>14 program for its supply resources", and did you</p> <p>15 review that program as part of your</p> <p>16 engagement?</p> <p>17 MR. DIDOMENICO:</p> <p>18 A. I did not.</p> <p>19 JOHNSON, Q.C.:</p> <p>20 Q. Would you, nonetheless, agree as an advisor to</p> <p>21 utilities that utilities in these days are</p> <p>22 expected to have sophisticated asset</p> <p>23 management programs?</p> <p>24 MR. DIDOMENICO:</p> <p>25 A. I wouldn't use the word "expected". I would</p>	<p>1 MR. DIDOMENICO:</p> <p>2 A. I would agree.</p> <p>3 JOHNSON, Q.C.:</p> <p>4 Q. Yeah. If I could turn you to page 58 of</p> <p>5 Liberty's Report, in that paragraph headed up</p> <p>6 "Background". Liberty makes the statement</p> <p>7 starting in the third sentence of that</p> <p>8 paragraph, "The consequences of failure in</p> <p>9 terms of damage to the machine, high cost of</p> <p>10 repairs, and a lengthy period of</p> <p>11 unavailability, demand particularly high</p> <p>12 reliability and risk avoidance". You're</p> <p>13 aware, I take it, that Mr. LeDrew, who is</p> <p>14 Hydro's former thermal manager, agreed with</p> <p>15 this statement when it was put to him on</p> <p>16 cross-examination on October 30th, correct?</p> <p>17 MR. DIDOMENICO:</p> <p>18 A. Agree.</p> <p>19 JOHNSON, Q.C.:</p> <p>20 Q. And you would likewise agree with Mr. LeDrew,</p> <p>21 that this is, in fact, an accurate proposition</p> <p>22 that there would be situations of high cost of</p> <p>23 repairs, lengthy period of unavailability,</p> <p>24 these factors demand particularly high</p> <p>25 reliability and risk avoidance? You would</p>
<p>Page 30</p> <p>1 use the word that "best in class" would</p> <p>2 involve having an asset management program,</p> <p>3 absolutely.</p> <p>4 JOHNSON, Q.C.:</p> <p>5 Q. So they should have them, correct?</p> <p>6 MR. DIDOMENICO:</p> <p>7 A. Again aspiring to best in class, yes.</p> <p>8 JOHNSON, Q.C.:</p> <p>9 Q. Right, okay, and if we go on to the top of</p> <p>10 page 62, Liberty - actually, if you go back to</p> <p>11 the bottom of 61 for a moment, Liberty makes</p> <p>12 the statement that, "Liberty reviewed that</p> <p>13 program in its December 2014 report, finding</p> <p>14 it generally sound in design", and they go on</p> <p>15 to say, "Hydro's asset management approach</p> <p>16 reflected in this program should encourage</p> <p>17 continuous questioning and testing of</p> <p>18 processes, with managers and technicians</p> <p>19 asking "why are we doing this, is it effect,</p> <p>20 and how can we improve". Wouldn't you</p> <p>21 gentlemen, on behalf of Capra, agree that as</p> <p>22 an advisor to utilities, that Hydro's asset</p> <p>23 management approach should indeed, as Liberty</p> <p>24 has stated, encourage this type of</p> <p>25 questioning?</p>	<p>Page 32</p> <p>1 agree with Mr. LeDrew?</p> <p>2 MR. DIDOMENICO:</p> <p>3 A. I would agree with that, and I would also</p> <p>4 state that that's the reason it's a triple</p> <p>5 redundant system.</p> <p>6 JOHNSON, Q.C.:</p> <p>7 Q. I see. So beyond it being a triple redundant</p> <p>8 system, you would not regard that there should</p> <p>9 apply high reliability and high risk avoidance</p> <p>10 to how you went about testing, say, the</p> <p>11 redundant systems?</p> <p>12 MR. DIDOMENICO:</p> <p>13 A. I believe it's an important system. I'm not</p> <p>14 sure how to answer your question.</p> <p>15 JOHNSON, Q.C.:</p> <p>16 Q. You wouldn't disagree with Liberty that when</p> <p>17 it comes to testing such a critical unit, for</p> <p>18 instance, let's take, for instance, the DC</p> <p>19 pump, that that - you wouldn't disagree that</p> <p>20 assessment of decisions in relation to that</p> <p>21 testing should be viewed from the standpoint</p> <p>22 of demand, and particularly high level of risk</p> <p>23 avoidance, and particularly high reliability?</p> <p>24 MR. DIDOMENICO:</p> <p>25 A. It is an important - it is a very important</p>



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1 system and it does demand more attention.  
 2 JOHNSON, Q.C.:  
 3 Q. I take it, you wouldn't disagree with Liberty?  
 4 MR. DIDOMENICO:  
 5 A. I wouldn't disagree, generally.  
 6 JOHNSON, Q.C.:  
 7 Q. Right, and you would agree that Hydro  
 8 considers itself to be a continuous  
 9 improvement environment, right?  
 10 MR. DIDOMENICO:  
 11 A. I don't know how to answer that.  
 12 JOHNSON, Q.C.:  
 13 Q. Okay, were you - Mr. LeDrew, I take it you've  
 14 reviewed Mr. LeDrew's testimony?  
 15 MR. DIDOMENICO:  
 16 A. I did.  
 17 JOHNSON, Q.C.:  
 18 Q. Right, and October 30th at page 91, if we  
 19 could bring up the transcript. Mr. LeDrew  
 20 says - he refers to, "This becomes the  
 21 challenge, as in a continuous improvement  
 22 environment that we operate", so he's saying  
 23 that Hydro operates in a continuous  
 24 improvement environment, correct?  
 25 MR. DIDOMENICO:

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1 A. Correct.  
 2 JOHNSON, Q.C.:  
 3 Q. And I take it, that you'd expect a good  
 4 utility to operate in a continuous improvement  
 5 environment, correct?  
 6 MR. DIDOMENICO:  
 7 A. Correct.  
 8 JOHNSON, Q.C.:  
 9 Q. And you would agree, I take it, that  
 10 continuous improvement environments do not  
 11 assume that testing practices are adequate  
 12 unless a problem occurs, right?  
 13 MR. DIDOMENICO:  
 14 A. I fundamentally disagree with that, I really  
 15 do. The issue here is a matter of priorities.  
 16 There are numerous priorities going on in any  
 17 power plant facility. There's lots going on.  
 18 That's what I've been trying to convey while  
 19 I've been here, that it's not unreasonable for  
 20 a utility to not be focused on things that  
 21 have never caused an issue in their recorded  
 22 history. That's not unusual.  
 23 JOHNSON, Q.C.:  
 24 Q. Would you counsel or advise a utility that's  
 25 interested in continuous improvement, that

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1 they should assume that longstanding testing  
 2 practices are adequate, unless they've  
 3 experienced a problem?  
 4 MR. DIDOMENICO:  
 5 A. Not necessarily a problem, but unless they  
 6 have some indication that that testing  
 7 practice is no longer valid - I mean, you're  
 8 literally talking about hundreds, if not  
 9 thousands, of practices. The notion that you  
 10 can sit there as a utility and review each of  
 11 those on a regular basis to see whether or not  
 12 you should be changing them is a little  
 13 impractical from a resource allocation  
 14 perspective. Every utility has limited  
 15 resources, whether they be human capital or  
 16 financial capital. You allocate those  
 17 resources based on the most compelling needs,  
 18 and the most compelling needs are not the  
 19 areas where you've never had a problem.  
 20 You're going to focus on the areas where you  
 21 have been having problems, or at least some  
 22 indication that a problem may develop.  
 23 JOHNSON, Q.C.:  
 24 Q. But absent that, what would you tell a  
 25 utility, as an advisor, who is seeking to have

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1 continuous improvement in its environment?  
 2 You would counsel them, I take it - you would  
 3 counsel them not to review a test that's been  
 4 in place for many years unless they've had a  
 5 problem, is that -  
 6 MR. DIDOMENICO:  
 7 A. Not unless they've had a problem, unless  
 8 there's been at least some indication that  
 9 there's an issue, whether it be, I don't know,  
 10 from an industry source, but some reason to  
 11 look at it. If it hasn't been causing an  
 12 issue at all and there's no indication that  
 13 there's been an issue, why would I go there.  
 14 I wouldn't go there. There are other things  
 15 that I can be doing, there are a lot of things  
 16 that are probably more important that I can be  
 17 going to, but again I wasn't there, I don't  
 18 know what the specific circumstances were. I  
 19 do know that most utility plant managers that  
 20 I've ever worked with always have a very, very  
 21 long list of things that they're working on to  
 22 improve, and they're all very diligently  
 23 working at that list, but they always have a  
 24 list that's longer than the resources they  
 25 have to accomplish it.

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<p>1 (9:45 a.m.)</p> <p>2 JOHNSON, Q.C.:</p> <p>3 Q. Is there any room for reviewing a practice</p> <p>4 that seems to have been put in place in this</p> <p>5 instance 40 years, okay, it's a very old test</p> <p>6 on an old piece of equipment, okay - now I can</p> <p>7 see to some degree in the case of an OEM</p> <p>8 instruction, you know, that's five years out,</p> <p>9 but we're talking about a piece of equipment</p> <p>10 in the instance of this DC pump, for instance,</p> <p>11 that it's now decades old, and we understand</p> <p>12 how absolutely critical it is, critical to the</p> <p>13 point that it's a catastrophe in 30, 40, 50,</p> <p>14 60 seconds, and, I guess, Mr. DiDomenico, I</p> <p>15 would have thought that an advisor to</p> <p>16 utilities would be saying, look, guys, you</p> <p>17 really got to not assume just because you</p> <p>18 haven't had a problem, that a critical piece</p> <p>19 of equipment like this should just continue to</p> <p>20 be tested like you've always done.</p> <p>21 MR. DIDOMENICO:</p> <p>22 A. I'm not sure what I can add beyond what I've</p> <p>23 already said. It's a matter of priorities.</p> <p>24 You're talking about a system that while very</p> <p>25 important is relied on very, very</p>	<p>1 that's contained in your CV, Mr. DiDomenico?</p> <p>2 MR. DIDOMENICO:</p> <p>3 A. I'm sorry, I'm not understanding you.</p> <p>4 JOHNSON, Q.C.:</p> <p>5 Q. Is the experience in relation to the isolated</p> <p>6 - the island where you're talking about the</p> <p>7 fossil generation, is that an area that you</p> <p>8 can point us to in your CV?</p> <p>9 MR. DIDOMENICO:</p> <p>10 A. Let me take a look. Could you maybe bring it</p> <p>11 up? I'm not sure whether I've updated it. I</p> <p>12 don't believe this CV was updated to include</p> <p>13 that experience.</p> <p>14 JOHNSON, Q.C.:</p> <p>15 Q. When was that work performed?</p> <p>16 MR. DIDOMENICO:</p> <p>17 A. Last year.</p> <p>18 JOHNSON, Q.C.:</p> <p>19 Q. When did you last update this CV?</p> <p>20 MR. DIDOMENICO:</p> <p>21 A. Updating a CV is a constant challenge in</p> <p>22 consulting, so I don't recall the exact date.</p> <p>23 JOHNSON, Q.C.:</p> <p>24 Q. Okay. Thank you, those are my questions.</p> <p>25 CHAIRMAN:</p>
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<p>1 infrequently, a system that isn't - I mean,</p> <p>2 I'm not sure how often its operated, but in</p> <p>3 the last 45 years we've had a lot of</p> <p>4 discussion about how do you know the system</p> <p>5 worked properly; well, there have been no</p> <p>6 failures, so one can only assume two things;</p> <p>7 either the system was never called upon to</p> <p>8 operate in 45 years, or the system operated</p> <p>9 properly. It can only be one of those two.</p> <p>10 With that knowledge, with that understanding,</p> <p>11 why would I question the OEM standard for how</p> <p>12 to maintain that equipment. It's not the most</p> <p>13 important thing on my list typically.</p> <p>14 JOHNSON, Q.C.:</p> <p>15 Q. I take it, Mr. DiDomenico, that your panel</p> <p>16 takes no quarrel whatsoever that the testing</p> <p>17 that Hydro was performing on the DC pump was</p> <p>18 inadequate?</p> <p>19 MR. DIDOMENICO:</p> <p>20 A. Absent hindsight, absent knowledge of what</p> <p>21 occurred, no, we do not have an issue with it,</p> <p>22 we think it was reasonable.</p> <p>23 JOHNSON, Q.C.:</p> <p>24 Q. You indicated in relation to the black start</p> <p>25 about that isolated island. Is that a matter</p>	<p>1 Q. Mr. Coxworthy, sir.</p> <p>2 CROSS-EXAMINATION BY MR. COXWORTHY:</p> <p>3 MR. COXWORTHY:</p> <p>4 Q. Thank you, Mr. Chair. Good morning, Mr.</p> <p>5 Athas, Mr. DiDomenico. My name is Paul</p> <p>6 Coxworthy. I'm counsel for a group of</p> <p>7 industrial customers of Hydro on the Island of</p> <p>8 Newfoundland. I'd like to turn to page 153 of</p> <p>9 your evidence from November 2nd, line 9.</p> <p>10 MS. GRAY:</p> <p>11 Q. Sorry, Mr. Coxworthy, what are you looking</p> <p>12 for?</p> <p>13 MR. COXWORTHY:</p> <p>14 Q. It's the November 2nd transcript, yesterday's</p> <p>15 transcript, and page 153, line 9, starting</p> <p>16 from line 9. Board counsel was asking you,</p> <p>17 Mr. DiDomenico, some questions and one of the</p> <p>18 questions starting at line 9, "And in your</p> <p>19 view, how do, in this particular circumstance</p> <p>20 - the importance of reliability for black</p> <p>21 start at the Holyrood plant, what weight</p> <p>22 should have been given to that reliability</p> <p>23 versus the cost", and your answer was, "When</p> <p>24 we use the word "weight", to me it implies</p> <p>25 having some numerical value, and decisions of</p>

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<p>1 this type, you're often left with the 2 experience of the managers that are involved 3 in making these decisions, not a weight per 4 se, or not a numerical value per se. I think 5 that the people that are best positioned to 6 make that judgment are the folks that have 7 been living and breathing the operation system 8 and the unit, in particular, for a number of 9 years and I rely on that", and you've 10 reiterated in different ways that same 11 statement throughout your evidence, but I 12 thought that was particularly - I think that 13 was the first time you really articulated it, 14 and you articulated it at length. I wanted to 15 turn then to the evidence again on November 16 2nd, page 213, line 13, and perhaps ask you, 17 just to give it some context, if we could go 18 back to page 212. At the bottom of page 212, 19 Mr. O'Brien, Newfoundland Power's counsel, was 20 asking you some questions. You had made some 21 comments just in terms of the likelihood of a 22 scenario where black start might have been at 23 Holyrood, might have been necessary. "Were 24 you aware that there was a situation back in 25 1994 when all transmission lines going into</p>	<p>1 Q. Sure, and I'll take you to the particular 2 section I wanted to speak to you about, page 3 B16, and this was a project justification that 4 Hydro presented to this Board in 2010 for a 5 1.3 million dollar refurbishment project for 6 this very gas turbine that's in subject, the 7 one at Holyrood that was providing black start 8 capability, and in the project justification, 9 the Holyrood gas turbine is described as 10 critical to the successful operation of the 11 island interconnected system. They go on then 12 to say in the project justification, and this 13 is Hydro again, these are Hydro's words, "If 14 the gas turbine failed to supply power to 15 Holyrood during a black start, Holyrood would 16 not be able to start until power was restored 17 to the grid by alternate generation sources". 18 So that "until power was restored to the grid 19 by alternate generation sources", that's 20 Hardwoods, isn't it? 21 MR. DIDOMENICO: 22 A. It could be the offline system, but it's also 23 Hardwoods. 24 MR. COXWORTHY: 25 Q. Somewhere from the transmission grid?</p>
<p>1 Holyrood were out". "Yes", you were, so that 2 going then to line 13, you felt you needed to 3 qualify your answer, "Can I qualify one thing. 4 You said that black start was necessary. Black 5 start would be advantageous, not necessary, 6 but advantageous". Is that your view, or is 7 that Hydro's view? 8 MR. DIDOMENICO: 9 A. That's my view. 10 MR. COXWORTHY: 11 Q. Is it Hydro's view? 12 MR. DIDOMENICO: 13 A. I believe it's consistent with Hydro's view, 14 yes. 15 MR. COXWORTHY: 16 Q. If we could turn then to Information 31, the 17 2011 capital budget application, the excerpt 18 that's been filed. Mr. DiDomenico, you've 19 indicated that you've reviewed some of the 20 transcripts. I don't know if you've reviewed 21 this document. I'd certainly give you a 22 moment to review it, if you haven't. 23 MR. DIDOMENICO: 24 A. I don't recall with certainty. 25 MR. COXWORTHY:</p>	<p>1 MR. DIDOMENICO: 2 A. Agreed. 3 MR. COXWORTHY: 4 Q. Yeah, so what they're pointing out here is 5 that until that happens, there's a problem, 6 Holyrood would not be able to start, and they 7 go on to explain what that problem would be, 8 "This would cause an unnecessary delay in 9 restoring full power to the grid". Is that 10 consistent with Hydro simply saying that 11 having black start, and using the strict 12 definition of black start, and you've 13 emphasized, and I think rightly so, that we 14 shouldn't use it loosely - is that consistent 15 with Hydro having a view that it's 16 advantageous versus necessary or critical? 17 MR. DIDOMENICO: 18 A. It's a combination of factors. Let me try to 19 be clear about that. We've talked at length 20 about the 11 hour advantage. When we're 21 talking about unnecessary delay, we're talking 22 about numbers like 11 hours, and that's not 23 absolute by any means, but that's an example. 24 MR. COXWORTHY: 25 Q. No, it could be more, it could be less.</p>

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1 MR. DIDOMENICO:  
 2 A. Could be more, could be less, but not likely  
 3 to be dramatically more, okay, it's not going  
 4 to a multiple day type event by any reasonable  
 5 standard. It wouldn't become -  
 6 MR. COXWORTHY:  
 7 Q. I'll give you that for the purposes of the  
 8 question.  
 9 MR. DIDOMENICO:  
 10 A. Okay. So with that in mind, the relatively  
 11 short duration - now mind you, I understand  
 12 that any outage duration is unacceptable, no  
 13 utility plans to have outages, okay, but  
 14 understanding the relative at least short  
 15 nature, and I'm talking hours versus weeks or  
 16 days, combined with the unlikelihood of that  
 17 need, and we've talked at length about how  
 18 often this occurs, that's what goes into the  
 19 conversation when we say is this reasonable,  
 20 is this understandable, that this is an  
 21 advantageous versus an absolute necessity.  
 22 MR. ATHAS:  
 23 A. There's one thing that I would just add to  
 24 that, and again just looking at what you've  
 25 pointed out for us to read today, this is a

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1 capital project, so usually capital projects  
 2 by definition are expecting to affect things  
 3 or have a long life, and there's no mention of  
 4 life in any of the - life span or exposure  
 5 span or anything in this paragraph that would  
 6 automatically bring it into an inconsistency  
 7 with the issue of reliance on - of not having  
 8 on-site black start generation for an interim  
 9 period.  
 10 MR. COXWORTHY:  
 11 Q. This is an application that was filed with the  
 12 Board, a justification to spend 1.3 - to get  
 13 approval to spend 1.3 million dollars. They  
 14 thought this was important enough that that  
 15 type of expenditure was justified, not just  
 16 advantageous, not just a good idea, justified,  
 17 the justification for it. So is that  
 18 consistent with simply saying that Hydro's  
 19 view in 2010 was that local black start  
 20 capability at Holyrood was simply advantageous  
 21 as opposed to something that was critical or  
 22 necessary?  
 23 MR. DIDOMENICO:  
 24 A. I believe from our perspective, and I think  
 25 Hydro has been consistent in this as well to

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1 some degree, the long term black start  
 2 capability at Holyrood, no one is saying it  
 3 wasn't necessary. I don't believe we've said  
 4 it, I don't think Hydro has said it. The  
 5 context around all this is from an interim  
 6 perspective, so I think we're all in agreement  
 7 that in a long term scenario black start  
 8 capability at Holyrood is important to the  
 9 operation of the system to both reduce the  
 10 outage durations and help restore the system  
 11 in a timely manner.  
 12 MR. COXWORTHY:  
 13 Q. If we could turn - again it's in the same  
 14 document, Information 31, I believe, there's a  
 15 report attached with respect to this project,  
 16 overhaul the gas turbine at Holyrood. If we  
 17 could turn to page 11 and the alternative  
 18 section. 4.10, and Hydro identifies in 2010  
 19 that there are no viable alternatives to  
 20 repairing the gas turbine engine, no viable  
 21 alternatives in terms of the identified need  
 22 for black start capability. Is that  
 23 consistent with considering Hardwoods as in  
 24 any way being part of a black start plan, as  
 25 opposed to an area restoration plan?

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1 MR. DIDOMENICO:  
 2 A. I'm not sure how they're defining viable, I  
 3 don't know the context of this entire report.  
 4 As I understand it, this was a document that  
 5 was designed to help justify the need to spend  
 6 money to black start at Holyrood, correct?  
 7 MR. COXWORTHY:  
 8 Q. Absolutely.  
 9 MR. DIDOMENICO:  
 10 A. And that is the theme of this whole thing.  
 11 MR. COXWORTHY:  
 12 Q. Absolutely.  
 13 MR. DIDOMENICO:  
 14 A. Okay.  
 15 MR. COXWORTHY:  
 16 Q. Are you suggesting they may be exaggerating  
 17 the importance of black start to get the Board  
 18 to approve 1.3 million dollar expenditure?  
 19 MR. DIDOMENICO:  
 20 A. I think exaggerating is too strong a term.  
 21 MR. COXWORTHY:  
 22 Q. What term would you use, Mr. DiDomenico?  
 23 MR. ATHAS:  
 24 A. I would just like to reiterate and point out  
 25 that again this is in the context of a capital

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1 expenditure, and at that moment there was - at  
 2 that time they're saying the alternatives that  
 3 were viable to get it - for a long term  
 4 solution, it was that there were no  
 5 alternatives. Again this does not have a  
 6 definition of what would be the period of time  
 7 that they would not have black start. There's  
 8 going to be some period of time to effect the  
 9 repairs and effect the overhaul where the  
 10 black start itself is not going to be  
 11 available.

12 MR. COXWORTHY:  
 13 Q. Well, I can -

14 MR. ATHAS:  
 15 A. So I think there's a critical element of  
 16 looking at a capital project that would be a  
 17 long term investment and a long term solution.  
 18 The absence of that, I think we have trouble  
 19 equating that to the decision that we were  
 20 asked to look at.

21 MR. COXWORTHY:  
 22 Q. I can assist you there, Mr. Athas. If you  
 23 look at page 4 of the same document, the  
 24 refurbishment plan that was proposed in this  
 25 2010 application was that it would have had

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1 the gas turbine out at Holyrood for  
 2 approximately five months to complete the work  
 3 under this project. I don't know if there's  
 4 anything here in terms of what five months,  
 5 but it seems to me they probably would have  
 6 chosen five months that were not in the winter  
 7 to do the work.

8 MR. DIDOMENICO:  
 9 A. I would expect.

10 MR. ATHAS:  
 11 A. You would hope so.

12 MR. COXWORTHY:  
 13 Q. Is that reasonable?

14 MR. ATHAS:  
 15 A. Yes.

16 MR. COXWORTHY:  
 17 Q. So this was the information that was filed to  
 18 justify proceeding with this application, but  
 19 that wasn't the end of the story in the 2011  
 20 capital budget. If we could turn to  
 21 Information 32, the response to IC-NLH-26.  
 22 Hydro still in 2010 decided to defer the  
 23 project we've just been talking about, and  
 24 provided a two page fairly lengthy - more  
 25 lengthy than the project justification

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1 explanation for the deferral, and what steps  
 2 they were going to be taking in relation to  
 3 that deferral. If we could turn to page 1 of  
 4 2 of the Attachment 1, the last paragraph,  
 5 even in the context of deferring this project,  
 6 Hydro is still saying in the last paragraph at  
 7 line 34, "The gas turbine is essential to  
 8 black start the Holyrood plant. Without this  
 9 gas turbine, the Holyrood plant would not be  
 10 able to be started when there is a loss of  
 11 transmission connection to the plant from off  
 12 the Avalon Peninsula. A source with a  
 13 capability of approximately 10 megawatts is  
 14 necessary to start the Holyrood generating  
 15 unit. Given the uncertainty of the prepare  
 16 time, it is prudent to secure a source of  
 17 black start capability prior to the 2010/2011  
 18 winter". This would have been filed in the  
 19 fall of 2010. Is it fair to say that if they  
 20 thought it was crucial to have that capability  
 21 for the winter of 2010 and 2011, that it would  
 22 also have been prudent to secure that for the  
 23 winters of 2011/2012, and 2012/2013?  
 24 Something special about the winter of  
 25 2010/2011, no?

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1 MR. DIDOMENICO:  
 2 A. Not to my knowledge.

3 (10:00 a.m.)

4 MR. COXWORTHY:  
 5 Q. No, and then continuing on to the next page -  
 6 continuing on at the bottom of that page,  
 7 "Otherwise, while the unit is out of service  
 8 for repairs and assessment, the supply to the  
 9 Avalon Peninsula area will be vulnerable to  
 10 long outages caused by extended transmission  
 11 outages. While such events are rare, the  
 12 requirement for black starting has occurred in  
 13 the past as a result of severe ice storms",  
 14 and you'll acknowledge, I hope, that that's  
 15 not a rare event in Newfoundland to have a  
 16 severe ice storm?

17 MR. DIDOMENICO:  
 18 A. I think it's a rare event to have one that  
 19 results in this consequence.

20 MR. COXWORTHY:  
 21 Q. Sure, but any severe ice storm or any ice  
 22 storm raises the risk?

23 MR. DIDOMENICO:  
 24 A. Not any storm, no.

25 MR. COXWORTHY:

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1 Q. Absolutely.  
 2 MR. COXWORTHY:  
 3 Q. The last one being in December of 2014. Hydro  
 4 then goes through, and I'm not going to go  
 5 through in detail, a number of steps that its  
 6 proposing to take to address Hydro's concern  
 7 that this is important to have this black  
 8 start capability at Holyrood, not in a year's  
 9 time or two year's time or five year's time,  
 10 it's critical right now, certainly critical  
 11 for any winter season, as you're approaching  
 12 the winter season, as they just said. So the  
 13 very last thing they say in this document at  
 14 the bottom of page 2, "Information from the  
 15 study", and this was a condition assessment  
 16 that's been filed in relation to the gas  
 17 turbine at Holyrood, "Information from the  
 18 study will then be used to prepare another new  
 19 capital budget proposal to provide long term  
 20 gas turbine service to the Holyrood thermal  
 21 generation station". Would you have expected  
 22 that that application would have been filed  
 23 with the Board, given that information?  
 24 MR. DIDOMENICO:  
 25 A. I believe so.

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1 MR. COXWORTHY:  
 2 Q. And no such application was filed until after  
 3 the January 2013 outage event. Does that  
 4 sound like a reasonable time frame, given the  
 5 -  
 6 MR. DIDOMENICO:  
 7 A. We have pointed to the fact that we thought  
 8 the communication on this issue has been less  
 9 than ideal, so I'm not sure we're in  
 10 disagreement in that regard.  
 11 MR. COXWORTHY:  
 12 Q. You were speaking, Mr. DiDomenico, about the  
 13 11 hours, give or take, might be shorter,  
 14 might be longer, not talking about days, and  
 15 I'll give you that, the 11 hour benefit, if  
 16 you want to put it that way, or 11 hour  
 17 avoidance of risk of having an outage that  
 18 long if you did have black start at Holyrood,  
 19 and that was the experience in January 2013.  
 20 MR. DIDOMENICO:  
 21 A. Right.  
 22 MR. COXWORTHY:  
 23 Q. You're looking at that in terms of, at least  
 24 in part, your own experience. I realize  
 25 you've spoken to Hydro and their experience

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1 when looking at it, and the experience that  
 2 the consumer advocate was raising with you in  
 3 terms of your work with island communities,  
 4 but these island communities you've worked  
 5 with, is it fair to say they don't have the  
 6 winter conditions that we have here in  
 7 Newfoundland?  
 8 MR. DIDOMENICO:  
 9 A. In one case, yes; another case, no. The other  
 10 is not technically an island. Anyway -  
 11 MR. COXWORTHY:  
 12 Q. Is it an isolated grid? What I'm interested  
 13 in is your work with isolated grids, whether  
 14 it's island or not.  
 15 MR. DIDOMENICO:  
 16 A. Right.  
 17 MR. COXWORTHY:  
 18 Q. Any with winter conditions?  
 19 MR. DIDOMENICO:  
 20 A. Yes.  
 21 MR. COXWORTHY:  
 22 Q. Like we have here in Newfoundland?  
 23 MR. DIDOMENICO:  
 24 A. Again Newfoundland is a fairly unique  
 25 circumstance, so when you say like -

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1 MR. COXWORTHY:  
 2 Q. The weather here is unique, and winter weather  
 3 is, in particular.  
 4 MR. DIDOMENICO:  
 5 A. Right.  
 6 MR. COXWORTHY:  
 7 Q. Are you aware that when these outages do occur  
 8 for extended periods of time, hours in winter  
 9 conditions, that Hydro and Newfoundland Power  
 10 have a lot of customers who rely on electric  
 11 heat? A large percentage of residential  
 12 heating in this province is electric heating,  
 13 and in outage events as have occurred in  
 14 January, 2013, and in 2014, the problems have  
 15 been experienced that these houses cut off  
 16 from power, not for days, for hours, gets so  
 17 cold that when you try - when the system is  
 18 restored and you try to put some power back  
 19 into that area, it trips the breakers because  
 20 it's drawing on so much power because the  
 21 house is so cold, those houses are so cold.  
 22 So even an 11 hour outage creates situations  
 23 that, you know, I don't think it's too  
 24 dramatic, the Board can decide if I'm being  
 25 too dramatic, creates life safety issues.

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<p>1 Would you agree?</p> <p>2 MR. DIDOMENICO:</p> <p>3 A. That's consistent with my experience, but</p> <p>4 again we seem to be hanging all that off of</p> <p>5 black start at Holyrood. As I think I said</p> <p>6 yesterday, power restoration is not just about</p> <p>7 power at Holyrood.</p> <p>8 MR. COXWORTHY:</p> <p>9 Q. But -</p> <p>10 MR. DIDOMENICO:</p> <p>11 A. It's about the transmission system to get the</p> <p>12 - may I finish?</p> <p>13 MR. COXWORTHY:</p> <p>14 Q. Sure, absolutely.</p> <p>15 MR. DIDOMENICO:</p> <p>16 A. It's about the transmission system that exits</p> <p>17 the plant, it's about the distribution system</p> <p>18 that brings it to the neighbourhood, so all of</p> <p>19 these things influence the ability of the</p> <p>20 system.</p> <p>21 MR. COXWORTHY:</p> <p>22 Q. I agree all of those things are important, but</p> <p>23 are we agreed that even Hydro acknowledges</p> <p>24 that if they'd had local black start</p> <p>25 capability in January 2013, that that outage</p>	<p>1 that we're talking about. That's just the</p> <p>2 non-start, it's not an option, it's not a</p> <p>3 question of cost, it's not a question of</p> <p>4 coordination with other utilities, it's</p> <p>5 impossible.</p> <p>6 MR. DIDOMENICO:</p> <p>7 A. You're talking a scenario where you're</p> <p>8 isolated from the grid, right, where the</p> <p>9 Avalon Peninsula is isolated?</p> <p>10 MR. COXWORTHY:</p> <p>11 Q. No, no, the whole island, let's start there.</p> <p>12 MR. DIDOMENICO:</p> <p>13 A. Okay.</p> <p>14 MR. COXWORTHY:</p> <p>15 Q. Let's start there, the whole island. Isn't it</p> <p>16 critical then that your major generation</p> <p>17 sources be reliable?</p> <p>18 MR. DIDOMENICO:</p> <p>19 A. Certainly.</p> <p>20 MR. COXWORTHY:</p> <p>21 Q. And more critical than in a situation where</p> <p>22 you are connected to the North American grid,</p> <p>23 because you don't have any other outside</p> <p>24 source as an even possibility to call upon?</p> <p>25 MR. DIDOMENICO:</p>
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<p>1 for at last some significant group of their</p> <p>2 customers, and we have an undertaking</p> <p>3 outstanding, would have been avoided for - or</p> <p>4 would have been lessened by 11 hours?</p> <p>5 MR. DIDOMENICO:</p> <p>6 A. I believe that's accurate.</p> <p>7 MR. COXWORTHY:</p> <p>8 Q. Thank you. Given that we're dealing with an</p> <p>9 isolated system, isolated from the North</p> <p>10 American grid, would you agree that the</p> <p>11 reliability of the major sources of generation</p> <p>12 on the island of Newfoundland, that it's even</p> <p>13 more important that they be reliable than in a</p> <p>14 situation where you are connected to the North</p> <p>15 American grid?</p> <p>16 MR. DIDOMENICO:</p> <p>17 A. I think reliability is always important.</p> <p>18 MR. COXWORTHY:</p> <p>19 Q. Absolutely, but is it even more important when</p> <p>20 you can't call for power over the transmission</p> <p>21 grid from outside of the province -</p> <p>22 MR. DIDOMENICO:</p> <p>23 A. Right.</p> <p>24 MR. COXWORTHY:</p> <p>25 Q. Which was the situation during this period</p>	<p>1 A. It's important. Yes, it's important.</p> <p>2 MR. COXWORTHY:</p> <p>3 Q. And on the Island of Newfoundland, there are</p> <p>4 really two major sources of power. There's</p> <p>5 hydro electric, which by and large is off the</p> <p>6 Avalon Peninsula and has to come in through</p> <p>7 two lines, and there's the Holyrood thermal</p> <p>8 plant on the Avalon Peninsula. Yes, there's</p> <p>9 other bits and pieces, but those are the two</p> <p>10 essential components of the grid.</p> <p>11 MR. DIDOMENICO:</p> <p>12 A. Okay.</p> <p>13 MR. COXWORTHY:</p> <p>14 Q. And Holyrood, in particular, in the winter</p> <p>15 being critical to that regardless of the</p> <p>16 condition of transmission, isn't it more</p> <p>17 important in a situation like that, that your</p> <p>18 generation source, your Holyrood have black</p> <p>19 start capability as a greater assurance of its</p> <p>20 reliability?</p> <p>21 MR. DIDOMENICO:</p> <p>22 A. I don't think we've said anything that's</p> <p>23 inconsistent with what you're saying. I</p> <p>24 believe that local black start capability at</p> <p>25 the Holyrood plant in the long term is very</p>

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<p>1 important to the Avalon Peninsula.</p> <p>2 MR. COXWORTHY:</p> <p>3 Q. Could we turn to page 175 of the November 2nd</p> <p>4 transcript, line 6, and this is moving to a</p> <p>5 different area, Mr. DiDomenico, it's speaking</p> <p>6 about the problem with the DC lube oil pump in</p> <p>7 relation to the Holyrood turbine, and perhaps</p> <p>8 again to give it a bit more context, if we</p> <p>9 could go to the bottom of page 174, thank you,</p> <p>10 Ms. Gray, and Board counsel was asking you</p> <p>11 some questions about this topic. "Now you</p> <p>12 were also present this morning when Mr. LeDrew</p> <p>13 gave evidence in response to questions from</p> <p>14 Mr. Fleming where", as I understood the</p> <p>15 evidence, not having the benefit of the</p> <p>16 transcript, "that Mr. LeDrew acknowledged that</p> <p>17 either the test wasn't done, or if done,</p> <p>18 wasn't done properly, and that this would have</p> <p>19 been by the contractor because it should have</p> <p>20 detected the problems with the motor before it</p> <p>21 was returned to the plant, is that correct",</p> <p>22 and you acknowledge that was Mr. LeDrew's</p> <p>23 testimony, but you felt you needed to add the</p> <p>24 comment, and this wasn't LeDrew's testimony, I</p> <p>25 don't think it's anyone at Hydro's testimony,</p>	<p>1 fine at the contractor, it may have been</p> <p>2 working fine at the contractor, but if these</p> <p>3 things can happen, if these things can happen</p> <p>4 prior to it being reinstalled or in the course</p> <p>5 of its reinstall, isn't that yet another</p> <p>6 reason that you should test that piece of</p> <p>7 equipment to verify that it's going to do what</p> <p>8 it's supposed to do?</p> <p>9 MR. DIDOMENICO:</p> <p>10 A. In light of the circumstances that have</p> <p>11 occurred, it's emphasizing that that would be</p> <p>12 important, but I need to keep saying the same</p> <p>13 thing, they have never had this issue, it's</p> <p>14 never been a problem. That's why we talk</p> <p>15 about reasonable versus, you know, best</p> <p>16 practice. We're talking about is it</p> <p>17 reasonable, and we're saying it's reasonable</p> <p>18 to understand why they wouldn't be doing this</p> <p>19 because they've never had a problem.</p> <p>20 MR. COXWORTHY:</p> <p>21 Q. If you take that to its extreme, they wouldn't</p> <p>22 send it out to the contractor to get it tested</p> <p>23 at all, they'd wait for it to fail.</p> <p>24 MR. DIDOMENICO:</p> <p>25 A. Well -</p>
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<p>1 that "In addition to that, I would suggest</p> <p>2 that there were other possibilities; namely,</p> <p>3 that something occurring during transport or</p> <p>4 something occurred during installation". I</p> <p>5 take it from that what you mean is the return</p> <p>6 of the motor from the contractor to the</p> <p>7 Holyrood facility, that in the course of that</p> <p>8 transport, something gets dropped, whatever,</p> <p>9 you know, or in the course of its being</p> <p>10 reinstalled back into the facility, that</p> <p>11 something could be done that could damage or</p> <p>12 put out of adjustment, however one wants to</p> <p>13 characterize it, the motor, and something that</p> <p>14 tested as being in good working state at the</p> <p>15 contractor, might not still be in that working</p> <p>16 state after having been dropped or having been</p> <p>17 improperly installed?</p> <p>18 MR. DIDOMENICO:</p> <p>19 A. Yes, and I believe I added that we simply</p> <p>20 don't know.</p> <p>21 MR. COXWORTHY:</p> <p>22 Q. Sure, absolutely, but those are possibilities.</p> <p>23 You've identified them as possibilities.</p> <p>24 Isn't that all the more reason to test it in</p> <p>25 its reinstalled state? It may have tested</p>	<p>1 MR. COXWORTHY:</p> <p>2 Q. If you took it to its extreme.</p> <p>3 MR. DIDOMENICO:</p> <p>4 A. If you're going to take it to extremes, yes.</p> <p>5 MR. COXWORTHY:</p> <p>6 Q. I agree it's an extreme.</p> <p>7 MR. DIDOMENICO:</p> <p>8 A. Yes.</p> <p>9 MR. COXWORTHY:</p> <p>10 Q. So it's a question of how much testing, isn't</p> <p>11 it?</p> <p>12 MR. DIDOMENICO:</p> <p>13 A. Right.</p> <p>14 MR. COXWORTHY:</p> <p>15 Q. So what would be remarkable about in addition</p> <p>16 to having the off-site contractor testing,</p> <p>17 having a further test when it's being</p> <p>18 reinstalled to ensure that - and as you</p> <p>19 pointed out, these intervening events are</p> <p>20 possibilities that it's going to operate</p> <p>21 properly on reinstallation?</p> <p>22 MR. DIDOMENICO:</p> <p>23 A. Again keep in mind the context in which we're</p> <p>24 making this our statement, when we're talking</p> <p>25 about motors and we're talking about - I</p>



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<p>1 believe the testimony was that the plant had 2 some 600 motors going out on a regular basis 3 and coming back in. We're talking about 4 managing resources, we're talking about how 5 many of these - so where do you stop, what 6 pump - you know, what motor do you test, when 7 don't you test. The fact is they haven't had 8 any issues with this. This was an unfortunate 9 circumstance. They have corrected their 10 problem, they're working in that direction. 11 That's exactly what you want them to do, you 12 want them to do that, you want them to improve 13 based on their experience. You don't know - I 14 don't think it's necessarily a good idea to 15 have them hypothetically coming up with 16 scenarios to find reasons to spend money and 17 allocate resources. That's the distinction 18 we're trying to make, that's all.</p> <p>19 MR. COXWORTHY: 20 Q. Sure. Mr. DiDomenico, these 600 motors, would 21 the failure of any of those 600 cause the sort 22 of catastrophic - potentially catastrophic and 23 very costly failures and damage to the turbine 24 that occurred here, not all 600 of those 25 motors have that same level of criticality, do</p>	<p>1 it to make sure that it operates or it's going 2 to operate at the speed required to complete 3 the task it's designed to perform while at the 4 plant?</p> <p>5 MR. DIDOMENICO: 6 A. Consistent with the NC standard in which 7 they're operating, yes.</p> <p>8 MR. FLEMING: 9 Q. Right, and Hydro requires that those test 10 results be provided to Hydro when it's 11 returned, correct?</p> <p>12 MR. DIDOMENICO: 13 A. Correct.</p> <p>14 MR. FLEMING: 15 Q. So while the operational history here showed 16 no failures, it seems to me that Hydro 17 recognized that there was a need to test this 18 motor to make sure it reached the proper 19 speed. This was in its conscience at some 20 point that testing to make sure it reached the 21 proper speed -</p> <p>22 MR. DIDOMENICO: 23 A. That was a requirement for the vendor.</p> <p>24 MR. FLEMING: 25 Q. Right, but they chose not to incorporate that</p>
<p>1 they?</p> <p>2 MR. DIDOMENICO: 3 A. That's true.</p> <p>4 MR. COXWORTHY: 5 Q. Thank you, gentlemen. I have no further 6 questions.</p> <p>7 CHAIRMAN: 8 Q. Mr. Fleming. 9 (10:15 a.m.)</p> <p>10 CROSS-EXAMINATION BY MR. FLEMING: 11 MR. FLEMING: 12 Q. Thank you, Mr. Chair, just a couple. Mr. 13 Coxworthy stole a bunch of my questions, so he 14 shortened it. Your report discusses testing 15 by Hydro's staff of the DC motor while it's at 16 Holyrood. It doesn't review the testing 17 procedures that Hydro require of the 18 contractor when the motor was off-site being 19 maintained, correct?</p> <p>20 MR. DIDOMENICO: 21 A. Correct.</p> <p>22 MR. FLEMING: 23 Q. And we understand from the evidence we've 24 heard that Hydro requires contractors when 25 they've done maintenance on the motor, to test</p>	<p>1 into their own weekly testing, correct?</p> <p>2 MR. DIDOMENICO: 3 A. That's my understanding.</p> <p>4 MR. FLEMING: 5 Q. Those are all my questions.</p> <p>6 CHAIRMAN: 7 Q. Where am I now? I'm back to -</p> <p>8 MS. GLYNN: 9 Q. The Commissioners.</p> <p>10 CHAIRMAN: 11 Q. Commissioners.</p> <p>12 VICE-CHAIR WHALEN: 13 Q. No questions. Thank you, panel.</p> <p>14 COMMISSIONER NEWMAN: 15 Q. No questions.</p> <p>16 COMMISSIONER OXFORD: 17 Q. No.</p> <p>18 CHAIRMAN: 19 Q. So we're back to Hydro.</p> <p>20 RE-DIRECT EXAMINATION BY MR. MACDOUGALL: 21 MR. MACDOUGALL: 22 Q. Just a very few, Mr. Chair, thank you. Mr. 23 DiDomenico, yesterday Board counsel took you 24 through what she referred to as a list of 25 facts regarding the lube oil situation, and at</p>

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1 the end of that discussion your comment was  
 2 that notwithstanding that she had listed those  
 3 facts, you still did not believe that there  
 4 was any issue of imprudence in Hydro's  
 5 decision making and that you can provide your  
 6 reasons for that. Ms. Greene didn't provide  
 7 you the opportunity to provide your reasons,  
 8 so I would like to do that now. Could you  
 9 provide the reasons why you believe the  
 10 decision making with respect to the lube oil  
 11 was reasonable, notwithstanding the list of  
 12 factual items that Ms. Greene took you  
 13 through?  
 14 MR. DIDOMENICO:  
 15 A. Certainly. I think I'm going to be repetitive  
 16 here, but fundamentally the issue here starts  
 17 with the allocation of resources to where  
 18 there have been problems in the past. In this  
 19 specific instance, you have a situation that  
 20 in the recorded history of the power plant  
 21 this issue had never arisen. So to expect  
 22 that the utility would be focused there is  
 23 unreasonable from our perspective. That's  
 24 really the nuts and bolts of it. They were  
 25 following NC standards, they were following

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1 OEM recommendations, they had never had a  
 2 problem, it's not unreasonable to expect that  
 3 they wouldn't be looking to change the way  
 4 they do business.  
 5 MR. MACDOUGALL:  
 6 Q. Thank you, Mr. DiDomenico, and just one more  
 7 question for both of you gentlemen. You both  
 8 confirmed over the past couple of days that  
 9 you have been reading the transcripts  
 10 throughout with respect to the two issues you  
 11 have been dealing with, and during cross-  
 12 examination some other information has been  
 13 put to you, some of which you said you had not  
 14 previously seen, but you've been asked some  
 15 questions on that. I would just ask that  
 16 having seen all of the further information  
 17 that has come up through the transcripts and  
 18 through the information put to you by the  
 19 cross-examiners, does any of what you have  
 20 seen in that information change or modify the  
 21 opinions that you expressed in your pre-filed  
 22 evidence?  
 23 MR. DIDOMENICO:  
 24 A. No.  
 25 MR. ATHAS:

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1 A. No.  
 2 MR. MACDOUGALL:  
 3 Q. Mr. Chair, with that, that is all of the  
 4 questions from Hydro.  
 5 CHAIRMAN:  
 6 Q. Okay, so I think we're finished for today, our  
 7 dance card is complete for today.  
 8 MS. GLYNN:  
 9 Q. Absolutely, we're back with the CT panel  
 10 tomorrow morning.  
 11 CHAIRMAN:  
 12 Q. 9 o'clock tomorrow morning.  
 13 (UPON CONCLUDING AT 10:19 A.M.)

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1 CERTIFICATE  
 2 I, Judy Moss, hereby certify that the foregoing is a true  
 3 and correct transcript of a hearing in the matter of  
 4 Newfoundland and Labrador Hydro's General Rate  
 5 Application heard on the 3rd day of November, A.D., 2015  
 6 before the Commissioners of the Public Utilities Board,  
 7 St. John's, Newfoundland and Labrador and was transcribed  
 8 by me to the best of my ability by means of a sound  
 9 apparatus.  
 10 Dated at St. John's, Newfoundland and Labrador  
 11 this 3rd day of November, A.D., 2015  
 12 Judy Moss

<b>-?-</b>	<b>-4-</b>	<b>add</b> [4] 16:4 37:22 45:23 61:23	<b>area</b> [10] 17:10 18:10 20:5 25:6,7 39:7 47:25 52:9 56:19 61:5	<b>between</b> [4] 2:1,5 17:9 17:11
<b>'94</b> [1] 6:24	<b>4</b> [1] 49:23	<b>added</b> [1] 62:19	<b>areas</b> [2] 35:19,20	<b>beyond</b> [2] 32:7 37:22
<b>-1-</b>	<b>4.10</b> [1] 47:18	<b>addition</b> [3] 17:17 62:1 64:15	<b>arisen</b> [1] 69:21	<b>big</b> [1] 25:13
<b>1</b> [2] 51:3,4	<b>40</b> [3] 1:9 37:5,13	<b>address</b> [3] 13:25 28:21 53:6	<b>articulated</b> [2] 41:13,14	<b>bigger</b> [1] 15:3
<b>1.3</b> [4] 43:5 46:12,13 48:18	<b>45</b> [2] 38:3,8	<b>adequate</b> [2] 34:11 35:2	<b>aspect</b> [1] 19:11	<b>bit</b> [3] 1:24 2:3 61:8
<b>10</b> [1] 51:13	<b>450</b> [1] 25:21	<b>adjustment</b> [1] 62:12	<b>aspiring</b> [1] 30:7	<b>bits</b> [1] 60:9
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