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<p>1 November 4, 2015  2 (9:08 a.m.)  3 CHAIRMAN:  4 Q. There are no preliminary matters?  5 MS. GLYNN:  6 Q. No, there is not, Mr. Chair.  7 CHAIRMAN:  8 Q. So we're over to Hydro to introduce the next  9 witness.  10 MR. MACDOUGALL:  11 Q. Thank you very much, Mr. Chair. Mr. Chair, I  12 have the pleasure today of introducing Mr.  13 John MacIsaac. Mr. MacIsaac is being tendered  14 as a witness today by Hydro to speak to the  15 procurement and construction of the new  16 Holyrood combustion turbine. He is doing that  17 in his position as Vice President, Project  18 Execution and Technical Service, at the  19 relevant time he oversaw those matters, so he  20 is being tendered for that purpose, but I  21 would, of course, also like to introduce him  22 today in his new position, which I think the  23 Board and others are aware of as the new  24 President of Newfoundland and Labrador Hydro.  25 CHAIRMAN:</p>	<p>1 MR. MACISAAC:  2 A. I did.  3 MR. MACDOUGALL:  4 Q. And with respect to the information you were  5 involved in and having that pre-filed in this  6 proceeding, is it true and correct to the best  7 of your knowledge and belief?  8 MR. MACISAAC:  9 A. It is.  10 MR. MACDOUGALL:  11 Q. And do you adopt it as the testimony of Hydro  12 in this proceeding?  13 MR. MACISAAC:  14 A. I do.  15 MR. MACDOUGALL:  16 Q. Mr. Chair, with those preliminary comments,  17 there's no opening statement from this panel,  18 so Mr. MacIsaac is available for cross-  19 examination.  20 CHAIRMAN:  21 Q. And I believe we're over to Madam Greene.  22 GREENE, Q.C.:  23 Q. Thank you, Mr. Chair, good morning.  24 MR. JOHN MACISAAC - CROSS-EXAMINATION BY GREENE, Q.C.:  25 GREENE, Q.C.:</p>
<p>Page 2</p> <p>1 Q. Okay, this must have happened overnight, did  2 it?  3 MR. MACDOUGALL:  4 Q. It happened late afternoon yesterday, Mr.  5 Chair.  6 CHAIRMAN:  7 Q. Okay, I guess congratulations are in order.  8 MR. MACISAAC:  9 A. Thank you.  10 CHAIRMAN:  11 Q. Or are they?  12 MR. MACISAAC:  13 Q. I would say, yes, thank you.  14 MR. JOHN MACISAAC (SWORN) EXAMINATION-IN-CHIEF BY MR.  15 MACDOUGALL:  16 MR. MACDOUGALL:  17 Q. Thank you, Mr. Chair, we just have a couple of  18 very preliminary questions for Mr. MacIsaac,  19 and then he will be available for cross-  20 examination. Mr. MacIsaac, you participated  21 in providing oversight and responsibility with  22 respect to some of the RFI responses related  23 to the subject matter you are speaking to  24 today, procurement and construction of the new  25 Holyrood CT, correct?</p>	<p>Page 4</p> <p>1 Q. Good morning, Mr. MacIsaac.  2 MR. MACISAAC:  3 A. Good morning.  4 GREENE, Q.C.:  5 Q. Mr. MacDougall just asked you your  6 responsibility with respect to RFIs that have  7 been prepared for this proceeding with respect  8 to the CT, and I wanted to back up a little  9 bit and talk about the actual application to  10 the Board for approval for the new CT, which  11 was filed with the Board in April of 2014.  12 What was your role with respect to that  13 application?  14 MR. MACISAAC:  15 A. I would have reviewed the submission, and I  16 would have contributed to the dialogue that  17 led up to building the technical scope and  18 also the budgetary estimate, so I'm familiar  19 in that space.  20 GREENE, Q.C.:  21 Q. What would your role have been, if any, with  22 respect to the selection of the actual unit  23 that was purchased?  24 MR. MACISAAC:  25 A. Inside of Hydro, it's well established due</p>

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<p>1 diligence process where individuals that are 2 from cross-functional pieces within the Hydro 3 team all contribute to a due diligence process 4 that's made up of technical services and 5 project execution. There's discipline leads 6 inside of that, and they report to myself, and 7 we would have brought the discipline leads in 8 to do a review and we have, I would say, a 9 matrix that we use when we're evaluating all 10 responses, all tendered responses, and they 11 would have participated in a team base review 12 of the matrix, the evaluation matrix we had 13 for the responses.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. And that would be after, as I understood your 16 answer, proposals were received in response to 17 your request?</p> <p>18 MR. MACISAAC:</p> <p>19 A. Correct.</p> <p>20 GREENE, Q.C.:</p> <p>21 Q. Were you involved prior to the actual 22 solicitation of proposals?</p> <p>23 MR. MACISAAC:</p> <p>24 A. It actually goes back over a considerable 25 period of time. If you look at the CT and how</p>	<p>1 GREENE, Q.C.:</p> <p>2 Q. We've heard evidence from Mr. Humphries in the 3 proceeding that at that point in time, Hydro 4 was considering what I would call a 5 conventional combustion turbine that would 6 have been a new manufactured unit from a 7 supplier with a three year delivery, is that 8 your memory as well?</p> <p>9 (9:15 a.m.)</p> <p>10 MR. MACISAAC:</p> <p>11 A. Yeah, so I think inside of the work that was 12 being done, I would say it was preliminary and 13 we were taking proposals to understand what 14 was in the market, but to also build budgetary 15 estimates and also preliminary schedules, and 16 when you talk about the time frame, the three 17 years that you referenced, that takes into 18 consideration timing around permits and it's 19 typically a year start to finish inside of a 20 new green field site selection for the EA 21 process, and we normally don't do work ahead 22 of the EA, and then we would 23 characteristically say a schedule for a build 24 on purpose built gas turbine would be 18 to 24 25 months. So that's the basis of that three</p>
<p>1 long we've been looking at options or 2 considering options, I joined the organization 3 back late in 2010, and in 2012, we were 4 looking at proposals for different CT options 5 that were available in the marketplace, and 6 that has linkage back to the findings or the 7 recommendations from our system planning 8 group. As we moved forward in time, we've 9 built a number of different comparative review 10 or analysis of the different options that were 11 available in the market, the most recent one 12 being the CT that we eventually selected, 13 purchased, and executed, and I would have been 14 involved at the tender process moving forward. 15 So the comparative analysis, the technical 16 reviews, the commercial reviews, I would have 17 been informed and brought into some of those 18 dialogues leading to the submission to the 19 Board, and also to the award of the contract 20 to ProEnergy.</p> <p>21 GREENE, Q.C.:</p> <p>22 Q. You mentioned that in 2012, there was working 23 being done with respect to the new CT?</p> <p>24 MR. MACISAAC:</p> <p>25 A. Yes.</p>	<p>1 year time frame.</p> <p>2 GREENE, Q.C.:</p> <p>3 Q. With respect to your role and the role of your 4 people in identifying the appropriate time of 5 that combustion turbine, can you give us some 6 indication when you first starting looking in 7 what has been referred to as the gray market 8 in this proceeding, which as I understand it, 9 include either a new machine that has never 10 been used, but it was intended for another 11 purchaser, or an actual used machine?</p> <p>12 MR. MACISAAC:</p> <p>13 A. I think up until the time that we had the 14 January 2013 outage, we had been looking at 15 all options in the market and we would 16 typically have put new units ahead of new 17 unused and was traditionally the approach 18 within Hydro, and inside of the 2013 - 19 following the January 2013 outage, we had a 20 strategic discussion about giving additional 21 consideration to new unused units that were 22 available in the market.</p> <p>23 GREENE, Q.C.:</p> <p>24 Q. And why was that?</p> <p>25 MR. MACISAAC:</p>

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<p>1 A. It was looking at the ability to add 2 generation for winter 2014/2015. 3 GREENE, Q.C.: 4 Q. So it was a time constraint was driving you to 5 look at that particular option, was it? 6 MR. MACISAAC: 7 A. Well, I think in fairness to everybody in the 8 room, I think we recognized the urgency around 9 adding additional reliability for customers, 10 and we looked at different options in the 11 market differently from that point forward. 12 GREENE, Q.C.: 13 Q. So that would have been after, as you 14 indicated, January of 2013? 15 MR. MACISAAC: 16 A. That's correct. 17 GREENE, Q.C.: 18 Q. No action was taken by Hydro with respect to 19 moving forward with re-seeking approval to 20 acquire the new unit until April of 2014, 21 after the January 2014 outages. From your 22 role as Vice President of Project Execution at 23 the time, can you put some perspective around 24 why no action after January of 2013 when you 25 started to, because of the urgency, look for a</p>	<p>1 this at some length previously, I don't think 2 that I can add a whole lot more than what he's 3 already commented in that space. 4 GREENE, Q.C.: 5 Q. So when Hydro did apply to the Board for 6 approval for the new CT, which is now in 7 place, they sought approval for a project for 8 119 million dollars, and that particular 9 project was approved, is that correct, Mr. 10 MacIsaac? 11 MR. MACISAAC: 12 A. Yes, that's correct. 13 GREENE, Q.C.: 14 Q. And then the Board, after approval of the 15 project, did request or direct Hydro to file 16 bi-weekly reports with respect to the progress 17 of the combustion turbine. Were you involved 18 in the preparation of those reports in any 19 way? 20 MR. MACISAAC: 21 A. Directly involved in the review stuff, that's 22 correct. 23 GREENE, Q.C.: 24 Q. I'd like to bring up the report of March 3rd, 25 2015, which was circulated - March 13th,</p>
<p>1 unit that could be available more quickly - 2 MR. MACISAAC: 3 A. I - 4 GREENE, Q.C.: 5 Q. Why no action was taken? 6 MR. MACISAAC: 7 A. Sorry, I didn't mean to jump in there. 8 GREENE, Q.C.: 9 Q. No, that's fine. 10 MR. MACISAAC: 11 A. I think, in fairness, we started to build 12 options and looked at what could be down in 13 the marketplace with different options and 14 time frames. We got ourselves to a place 15 where in 2014 when we did get into rotating 16 outages, we recognized that it was time to be 17 decisive and move forward. 18 GREENE, Q.C.: 19 Q. And you didn't have - even though there was a 20 sense of urgency after January 2013 event, it 21 wasn't sufficient to prompt action in 2013? 22 MR. MACISAAC: 23 A. Inside of our planning criteria, we were in a 24 place where we looked forward and I know that 25 my colleague, Mr. Humphries, has spoken to</p>	<p>1 sorry. Ms. Gray, it was one of the 2 information items that was circulated last 3 week and this will need to be marked as an 4 information item, number 33. Now the cover 5 letter that accompanied that particular 6 briefing, I just want to refer to the second 7 paragraph. 8 MR. MACISAAC: 9 A. Thank you. 10 GREENE, Q.C.: 11 Q. So the second paragraph in the cover letter 12 states, "Based on the availability status of 13 the new combustion turbine, as reflected in 14 the attachment update, this will be Hydro's 15 last scheduled bi-weekly update on this 16 project". So given - and when we look at the 17 attached report, we see that the project was 18 almost complete at this time, so this was the 19 last briefing that Hydro provided to the Board 20 with respect to this project. So if we look 21 first at page three. 22 MR. MACISAAC: 23 A. Okay. 24 GREENE, Q.C.: 25 Q. And perhaps you could explain for us what this</p>

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1 dashboard is and the message it is intended to  
 2 convey to somebody looking at it?  
 3 MR. MACISAAC:  
 4 A. Looking at it from a high level, the dashboard  
 5 is intended to convey how we've performed on  
 6 the project with respect to safety, quality,  
 7 schedule, and cost, and the green would  
 8 indicate that we're within the thresholds or  
 9 the targets that we set for ourselves inside  
 10 of execution of the project. With respect to  
 11 schedule, we would have said that the schedule  
 12 was at risk. We had contemplated the end of  
 13 the year, 2014, for hand over, and we ran into  
 14 January, and I want to speak to the schedule  
 15 for a minute when I can take a second, and  
 16 then on cost, the same sort of thing, we had  
 17 anticipated that we were within our bandwidth  
 18 on cost as well.  
 19 GREENE, Q.C.:  
 20 Q. Okay.  
 21 MR. MACISAAC:  
 22 A. So on the schedule piece, when we first  
 23 accepted the proposal from ProEnergy and  
 24 awarded to them, inside of their tender  
 25 submission to us, they made it very clear that

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1 it was - eight months was the duration of the  
 2 work from start to finish from the award date,  
 3 and that was inside of their documentation.  
 4 For ourselves, we set a stretch target in  
 5 front of ProEnergy, as you would, endeavouring  
 6 to be in service in December. So that stretch  
 7 target was a target that we set for them to be  
 8 clear, and it was an aggressive schedule. If  
 9 you look at when we awarded to ProEnergy,  
 10 which was, I'm going to say the middle of May,  
 11 the 16th of May, something like that, and when  
 12 they finished and we synchronized and were in  
 13 a place to serve load on the grid, which was  
 14 January 21st, they were right around - they  
 15 were within a week of the eight months that  
 16 they had originally forecast to us. Now did  
 17 we provide a stretch target to them; yes,  
 18 absolutely, and did we make that stretch  
 19 target public, probably more than we should  
 20 have, but the incentive was to drive them to a  
 21 December completion. On the cost piece, our  
 22 bandwidth on being green is 10 percent and  
 23 that's aligned to our policy with yourselves  
 24 as well, and at the time we actually  
 25 forecasted that we were in a place to come in

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1 under, and after we had submitted this final  
 2 report to the PUB, we were approached by  
 3 ProEnergy in the back half of March and they  
 4 started raising concerns for cost variance  
 5 that they had on building construction, and we  
 6 would have captured, had we known, we would  
 7 have captured that variance on the building  
 8 cost and reflected it in the February report,  
 9 but we didn't have that information at the  
 10 time. So on a high level, just speaking to  
 11 the cost for a minute, the budget was 119. We  
 12 came in with a variance of 10 million dollars.  
 13 When you back yourself in on that math, the  
 14 variance is 8.5 percent, and when I look at  
 15 this project and the complexity of the work,  
 16 coming in at 8.5 percent on a project like  
 17 this, from our perspective, is within that  
 18 green bandwidth. If you look at Liberty's  
 19 Report when they compare cost of similar  
 20 plants, they also provide a bandwidth, and how  
 21 I read their information and how you read  
 22 their information might be slightly different  
 23 or subject to interpretation, but in their  
 24 report they speak to 111 million dollars US to  
 25 131 million dollars US, and I'm not sure which

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1 is which, but inside of our project which we  
 2 forecast to come in at 128.5 Canadian, when  
 3 you do a conversion using 10 percent which is  
 4 what Liberty uses, we're in at 115 US, which  
 5 is within the bandwidth that Liberty says is a  
 6 project well completed, and I would agree that  
 7 it's a project that's been effectively  
 8 managed, executed against the very aggressive  
 9 schedule. Our safety results speak for  
 10 themselves, which is a priority, and I believe  
 11 we have a really good project.  
 12 GREENE, Q.C.:  
 13 Q. That's a lot of information, that answer, so  
 14 let's take some elements of it to follow up.  
 15 MR. MACISAAC:  
 16 A. Sure, yes. I'm just trying to provide  
 17 context.  
 18 GREENE, Q.C.:  
 19 Q. With respect to one part of what you just  
 20 said, I understood that ProEnergy approached  
 21 you in the last half of March?  
 22 MR. MACISAAC:  
 23 A. In the back half of March. I think it was  
 24 March 17th time frame where they formally came  
 25 in and said, look, we'd like to sit down and

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<p>1 talk to you about the cost on the building.</p> <p>2 GREENE, Q.C.:</p> <p>3 Q. And up until that time, Hydro had no</p> <p>4 indication that there was a potential for an</p> <p>5 increase in the contract price?</p> <p>6 MR. MACISAAC:</p> <p>7 A. No, we didn't, and I think in fairness to</p> <p>8 Hydro and to ProEnergy, at the time everybody</p> <p>9 was focused on ensuring that we delivered the</p> <p>10 project on time, and we had been having on an</p> <p>11 ongoing basis regular discussions with</p> <p>12 ProEnergy and it came as a surprise to us that</p> <p>13 they were going to petition us for significant</p> <p>14 extra or a considerable variance on the</p> <p>15 building cost. I would point out on the</p> <p>16 building as a line item, we carried an</p> <p>17 allowance on the building and the purpose for</p> <p>18 being that deliberate, we carved out the</p> <p>19 building recognizing that until we had</p> <p>20 selected which option we were going to go</p> <p>21 with, it was more prudent to carry the</p> <p>22 building cost as an allowance because the</p> <p>23 engineering work had not yet been done at that</p> <p>24 point in time.</p> <p>25 GREENE, Q.C.:</p>	<p>1 and the additional complexity came from the</p> <p>2 HVAC system, the FM approvals on the fire</p> <p>3 protection system, and the extended work time</p> <p>4 frame for building execution, and we have</p> <p>5 spoken to that before and that's integration</p> <p>6 of the work while we were executing the build</p> <p>7 of the gas turbine itself and all the</p> <p>8 supporting auxiliaries and integrating a</p> <p>9 building envelope around the construction at</p> <p>10 the same time.</p> <p>11 (9:30 a.m.)</p> <p>12 GREENE, Q.C.:</p> <p>13 Q. And that was not known at the time of the</p> <p>14 award of the tender or the request for</p> <p>15 proposals?</p> <p>16 MR. MACISAAC:</p> <p>17 A. I think they encountered some delays inside of</p> <p>18 their front end, their front end design</p> <p>19 approvals, and also their manufacturing slot.</p> <p>20 It was a building that came out of Upper</p> <p>21 Canada.</p> <p>22 GREENE, Q.C.:</p> <p>23 Q. If we could - another thing you said in your</p> <p>24 reply a few moments ago was in looking at the</p> <p>25 cost of the project, you include a 10 percent</p>
<p>Page 18</p> <p>1 Q. And with respect to the allowance on the</p> <p>2 building, what type of costs are we talking</p> <p>3 about?</p> <p>4 MR. MACISAAC:</p> <p>5 A. So the allowance on the building was 8 million</p> <p>6 dollars.</p> <p>7 GREENE, Q.C.:</p> <p>8 Q. And when ProEnergy approached you with respect</p> <p>9 to the increased cost, what was the basis for</p> <p>10 their claim, was it materials, was it labour,</p> <p>11 what was the basis of the increase?</p> <p>12 MR. MACISAAC:</p> <p>13 A. Their cost on the building was higher and they</p> <p>14 initially didn't segregate it for us. They</p> <p>15 maintained that it was the complexity of both</p> <p>16 the design and the complexity of the execution</p> <p>17 that had caused for incremental costs on the</p> <p>18 building.</p> <p>19 GREENE, Q.C.:</p> <p>20 Q. And again would that have been from additional</p> <p>21 labour, additional materials, additional time</p> <p>22 to do the work, which is labour and equipment?</p> <p>23 MR. MACISAAC:</p> <p>24 A. I think it's a combination. The building</p> <p>25 scope was, (a) larger, and (b) more complex,</p>	<p>Page 20</p> <p>1 band with respect to whether it's on budget or</p> <p>2 not. Did I understand that correctly?</p> <p>3 MR. MACISAAC:</p> <p>4 A. In the colour coding. Like, if we were to</p> <p>5 bring this back across to you today, knowing</p> <p>6 what we know today, and us being within 8.5</p> <p>7 percent, we probably would not be looking at a</p> <p>8 different colour - we would not be looking at</p> <p>9 a different colour.</p> <p>10 GREENE, Q.C.:</p> <p>11 Q. Was that Hydro's position at the time of</p> <p>12 filing these reports with the Board or at the</p> <p>13 time the project was ongoing?</p> <p>14 MR. MACISAAC:</p> <p>15 A. All the project work that we do right across</p> <p>16 the board, we have established thresholds for</p> <p>17 colour coding on these four that we</p> <p>18 consistently use, and within 10 percent on</p> <p>19 cost is our green bandwidth.</p> <p>20 GREENE, Q.C.:</p> <p>21 Q. And has that threshold been communicated to</p> <p>22 the Board with respect to this information?</p> <p>23 MR. MACISAAC:</p> <p>24 A. I have to double check. I honestly would take</p> <p>25 that away as an undertaking. I'd have to</p>

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<p>1 double check, but I would say that normally it 2 would be, yes. It's our standard practice, I 3 guess, is the right way to answer and we'll go 4 away and confirm whether we've communicated 5 that previously or not.</p> <p>6 GREENE, Q.C.:</p> <p>7 Q. I'd like now to turn to page five, and I'm 8 looking now at Bullet 8, which is the cost. 9 "S" curve reflects tracking and compliance 10 with the original plan. Refer to level two 11 summary schedule on the following page. So 12 then if we could go to the next page, which is 13 the summary schedule, we see there that 14 essentially there was nothing planned for 15 beyond the first quarter of 2015, is that 16 correct?</p> <p>17 MR. MACISAAC:</p> <p>18 A. That's what I see as well.</p> <p>19 GREENE, Q.C.:</p> <p>20 Q. Now if we could go to the next page, here it 21 relates to the previous bullet. We see the 22 planned line being red and the actual line 23 being close to it, so again looking at that, 24 you would say no concern on budget, and we see 25 the budget is being shown as 119 million, not</p>	<p>1 A. So based on where - and this March report is 2 based on our February numbers, so based on 3 where we were in February, these are correct 4 or accurate reflections of the information 5 that we had at the time.</p> <p>6 GREENE, Q.C.:</p> <p>7 Q. Okay.</p> <p>8 MR. MACISAAC:</p> <p>9 A. I think it's important to understand that this 10 was not a time and materials contract with 11 ProEnergy. This was an EPC lump sum, and the 12 labour hours are there more as a measurement 13 tool for the EPC contractor than they are a 14 reflection of cost.</p> <p>15 GREENE, Q.C.:</p> <p>16 Q. And when this report was received, there was 17 an RFI asked on this particular report. I 18 wonder if we can go to PR-PUB-NLH-008.</p> <p>19 MR. MACISAAC:</p> <p>20 A. Can you pull that up, Jen?</p> <p>21 MS. GRAY:</p> <p>22 Q. Yes.</p> <p>23 GREENE, Q.C.:</p> <p>24 Q. And you can see from the question, which was -</p>
<p>1 10 percent higher, correct?</p> <p>2 MR. MACISAAC:</p> <p>3 A. Correct, yes.</p> <p>4 GREENE, Q.C.:</p> <p>5 Q. Now if we could go to the next page, here we 6 see a slightly different story, which we see 7 the planned being in red, which was the 8 baseline plan for labour, and we see an 9 increase in the hours, the blue line, so a 10 significant increase in the number of hours of 11 what the plan had been, is that correct?</p> <p>12 MR. MACISAAC:</p> <p>13 A. Yes.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. So when looking at that report, one would get 16 the message which was the purpose of the 17 report that you were in a little bit of 18 trouble on schedule, but that on cost, the 19 cost being 119 million as shown on this 20 particular report, and which was what was 21 approved by the Board, that you were within 22 budget, is that correct, that is the message 23 that one would take from what we just went 24 through?</p> <p>25 MR. MACISAAC:</p>	<p>1 MR. MACISAAC:</p> <p>2 A. Can you scroll up a little bit too?</p> <p>3 GREENE, Q.C.:</p> <p>4 Q. The question was, "Labour hours", which we 5 just looked at, "are more than 50 percent 6 higher than planned. In addition, 7 considerable overtime became necessary to 8 maintain the schedule, however, costs are 9 reported as below planned. Please explain 10 this potential inconsistency".</p> <p>11 MR. MACISAAC:</p> <p>12 A. Yeah.</p> <p>13 GREENE, Q.C.:</p> <p>14 Q. And there - I'll let you read it for a moment.</p> <p>15 MR. MACISAAC:</p> <p>16 A. Sure. We're good.</p> <p>17 GREENE, Q.C.:</p> <p>18 Q. Essentially, it is the answer you just gave 19 which the way I expressed it is, don't worry, 20 it's a lump sum contract, so it doesn't matter 21 the fact that the hours are over, and I'll 22 give you a moment to read the answer.</p> <p>23 MR. MACISAAC:</p> <p>24 A. Yes, and the response would be the same. It 25 goes back to the nature of the construct of</p>

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<p>1 the contract. If it were labour and 2 materials, customers and rate payers in the 3 province would be exposed. The nature of the 4 contract and the construct of the contract is 5 it's EPC, and the risk for the labour hour 6 overrun is, therefore, absorbed, but the 7 reward is absorbed as well by the contract, 8 and the contractor in this case, ProEnergy, 9 had a contract with a number of local firms 10 for the labour component, which we were not 11 party to.</p> <p>12 GREENE, Q.C.: 13 Q. And if I take you to line 18 and 19, "To date, 14 overall project costs have been tracking with 15 compliance to the original approved budget", 16 and the original approved budget was 119 17 million dollars, is that correct?</p> <p>18 MR. MACISAAC: 19 A. That's correct.</p> <p>20 GREENE, Q.C.: 21 Q. Okay. Was there ever, to your knowledge, a 22 revision to that RFI filed?</p> <p>23 MR. MACISAAC: 24 A. Not to my knowledge, no.</p> <p>25 GREENE, Q.C.:</p>	<p>1 million, and then when we come over to the 2 next section, we see it's set out for the 3 increase and the variances, 10.5 million 4 dollars?</p> <p>5 MR. MACISAAC: 6 A. Correct.</p> <p>7 GREENE, Q.C.: 8 Q. So would you agree that this is the first time 9 the Board was advised that there was an 10 increase in the cost of this project?</p> <p>11 MR. MACISAAC: 12 A. I would.</p> <p>13 GREENE, Q.C.: 14 Q. When the Board received Hydro's 2016 capital 15 budget application?</p> <p>16 MR. MACISAAC: 17 A. I would, and I'll take a "mea culpa" on that, 18 we should have reached out sooner, but I'll 19 also explain in the work that happened or 20 transpired in the ensuing time frame.</p> <p>21 GREENE, Q.C.: 22 Q. Sure.</p> <p>23 MR. MACISAAC: 24 A. So in March, ProEnergy would have approached 25 us and we were taken back and surprised by the</p>
<p style="text-align: right;">Page 26</p> <p>1 Q. The next thing I'd like to go to is the second 2 item that was circulated last week, which was 3 Hydro's 2016 capital budget, the 2015 capital 4 expenditure by category, page I-16. That is 5 number 34, Information Item 34, and if you 6 could scroll to the left a little bit, Ms. 7 Gray, so we can see - do you know the date 8 that Hydro's 2016 capital budget application 9 was filed with the Board?</p> <p>10 MR. MACISAAC: 11 A. I'm going to say that I don't, but I'm going 12 to -</p> <p>13 GREENE, Q.C.: 14 Q. Well, subject to check, it was dated July 15 31st.</p> <p>16 MR. MACISAAC: 17 A. Okay, I'm with ya.</p> <p>18 GREENE, Q.C.: 19 Q. And we can see when we look at this, and in 20 order to get it all on this screen, it has to 21 be made smaller, which might make the numbers 22 look a bit harder to read, so we see under 23 2014 projects, the very first project listed 24 there is the 100 megawatt CT addition, 25 Holyrood, and we see there the total was 119</p>	<p style="text-align: right;">Page 28</p> <p>1 extent of the petition for variance on the 2 building cost, and we spent the next, I would 3 say, eight to ten weeks working through with 4 them in detail on what the basis of their 5 claim for a variance was, and we challenged it 6 aggressively. We actually went outside 7 ourselves and engaged others to help us in a 8 hard scrub and review of their submitted 9 variance, and we got ourselves to a place 10 where on a hard scrub and review, we agreed on 11 some of the elements of merit inside of the 12 plant, and they originally petitioned for a 13 much larger amount, and when we did the hard 14 scrub on the building cost and came out of the 15 other end of the review, we were in budget 16 submission time frame and we felt it was 17 appropriate to include it in the July 18 submission. Should we have reached out sooner 19 and advised the Board; I agree, we should have 20 communicated more proactively in that space, 21 that we had a potential exposure on our budget 22 for the building and a potential variance in 23 that space.</p> <p>24 GREENE, Q.C.: 25 Q. In your response, you indicated that ProEnergy</p>

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<p>1 submitted a claim for either additional - for 2 damages or extra cost incurred in their lump 3 sum contract? 4 MR. MACISAAC: 5 A. A variance, a variance against the allowance 6 on the building cost. 7 GREENE, Q.C.: 8 Q. And you mentioned three or four times you did 9 a hard scrub. I had visions of scrubbing my 10 kitchen floor. Can you tell us what a hard 11 scrub is? 12 MR. MACISAAC: 13 A. Right down to all of the units that were 14 involved in the building and all of the 15 incremental claims that add up to make the 16 variance, and we can provide the detail in 17 executive format as an undertaking for you. 18 GREENE, Q.C.: 19 Q. I don't - well, sure, if Hydro is offering to 20 provide it. I wasn't going to go there, but 21 thank you, Mr. MacIsaac, we'll accept the 22 undertaking. 23 MR. MACISAAC: 24 A. Okay. 25 GREENE, Q.C.:</p>	<p>1 that point in time, and in the second half of 2 the building, one end wall and one perimeter 3 wall. 4 GREENE, Q.C.: 5 Q. Okay. 6 MR. MACISAAC: 7 A. So the roof is not in place and you can see 8 the daylight, actually, shining down through 9 the building, so you can see the assets 10 inside. 11 GREENE, Q.C.: 12 Q. So that is the building we're talking about? 13 MR. MACISAAC: 14 A. It is. 15 GREENE, Q.C.: 16 Q. Where at the end of February, there have been 17 significant work done on the building? 18 MR. MACISAAC: 19 A. Yes. 20 GREENE, Q.C.: 21 Q. Now if we could go to NP-NLH-017 in Hydro's 22 capital budget which was also circulated last 23 week, which needs to be marked as Information 24 item number 35. This was - the question asked 25 for a breakdown for the explanation for the</p>
Page 30	Page 32
<p>1 Q. And this claim for the increase in the 2 allowance was reviewed internally by Hydro, is 3 that correct? 4 MR. MACISAAC: 5 A. Yes, and Revay &amp; Associates out of Montreal 6 were initially engaged to help us do a high 7 level scrub - sorry for using that, but that's 8 just my vernacular, a high level review 9 initially on the claim for variance on the 10 building cost. 11 GREENE, Q.C.: 12 Q. I wonder if we could go back to Information 13 Item 33 for a moment, please, which was - and 14 can we go to page, I think, 21 of this. Is 15 that the building we're talking about? 16 MR. MACISAAC: 17 A. Partially completed, yes, it is. 18 GREENE, Q.C.: 19 Q. So at the end of February, we see that the 20 building, the structure was up, the foundation 21 was there, the structural steel was there, it 22 looks like the roof was there, part of the 23 roof? 24 MR. MACISAAC: 25 A. About half of the roof line was in place at</p>	<p>1 10.5 million dollar increase in cost. 2 MR. MACISAAC: 3 A. Uh-hm. 4 GREENE, Q.C.: 5 Q. And the most significant variance is in the 6 contract. So this is the increase in the lump 7 sum contract that arose as a result of 8 ProEnergy's claim? 9 MR. MACISAAC: 10 A. The largest contributor to the increase is the 11 variance on the building. 12 GREENE, Q.C.: 13 Q. Okay. 14 MR. MACISAAC: 15 A. And that was within the contract with 16 ProEnergy, that's correct. 17 GREENE, Q.C.: 18 Q. I want to talk a little bit how Hydro does 19 report to the Board with respect to various 20 projects and other matters the Board has asked 21 Hydro to report on. We've already looked at 22 Information 35, and I wonder if we could bring 23 this up now, please, Ms. Gray. 24 MS. GRAY: 25 Q. Sorry, Ms. Greene, I believe this is</p>

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<p>1 Information 35.  2 GREENE, Q.C.:  3 Q. Information 35 in this proceeding.  4 MS. GRAY:  5 Q. This is Information 35.  6 GREENE, Q.C.:  7 Q. Oh, I'm sorry. Undertaking must be 35, the  8 winter readiness report.  9 MS. GRAY:  10 A. Absolutely.  11 (9:45 a.m.)  12 GREENE, Q.C.:  13 Q. Coincidence, the same number, and when you  14 scroll down to the very first page - keep  15 going where we see our first chart.  16 MS. GRAY:  17 Q. Sorry, Ms. Greene, the first chart?  18 GREENE, Q.C.:  19 Q. Yes, just scroll to the first chart, here we  20 go. Are you familiar with the winter  21 readiness reports that have been filed with  22 the Board?  23 MR. MACISAAC:  24 A. I haven't read this one, to be truthful.  25 GREENE, Q.C.:</p>	<p>1 though I didn't see the report, and just speak  2 to the nature of how we get to colour coding  3 and the type of work that we do on all  4 projects that are performed on behalf of  5 regulated Hydro. So we do bi-weekly risks and  6 solves where we go through all of the capital  7 project work that we had, and inside of those  8 risks and solves, again part of the  9 vernacular, we do a scrub on what the risks  10 are and what the potential solves are, and do  11 a sobriety check on where we are in terms of  12 what we're going to deliver and what can be  13 recovered, and potentially what has gone  14 beyond our ability to deliver in the time  15 frames. I would say that our measurement  16 inside of project execution and the capital  17 work and our reflection in terms of colour  18 coding has improved. Can we be better; yes,  19 and typically on all project work that we do,  20 we place a lot of emphasis and increasingly so  21 over the last three to four years ensuring  22 that we get it right, and that we're providing  23 reports that accurately reflect and are  24 representative of what we're truly going to  25 achieve. Do we still have some that go beyond</p>
<p>Page 34</p> <p>1 Q. The purpose of bringing your attention to it,  2 which was already discussed in the hearing, if  3 we look to the chart with respect to Unit 1,  4 we see, as I understand it, the blue line is  5 supposed to be planned completion, and we do  6 see a number of activities not meeting the  7 plan, which is why that's red. However, when  8 we look over to the forecast completion  9 status, we see it was marked as green.  10 MR. MACISAAC:  11 A. Uh-hm.  12 GREENE, Q.C.:  13 Q. And I use this only as an example because  14 there have been other reports, there was an  15 undertaking which asked by that was, which  16 again what I want to take you through was a  17 couple of examples where Hydro's reporting to  18 the Board that something is green, something  19 is on track. In this particular case, it  20 shows that Hydro is saying that it is green,  21 but a number of activities are actually behind  22 the plan, and Undertaking 60, Hydro was asked  23 to explain that.  24 MR. MACISAAC:  25 A. So I'm going to take a minute, if I can, even</p>	<p>Page 36</p> <p>1 our target dates; yes, for sure. Are we  2 better than we've been before; yes, we are.  3 To get the communication piece, we can always  4 be better in that space.  5 GREENE, Q.C.:  6 Q. What is the purpose -  7 MR. MACISAAC:  8 A. And you have my commitment that regulated  9 Hydro going forward will pay full attention to  10 ensuring that we do everything we can to have  11 accurate reports that are timely for you.  12 GREENE, Q.C.:  13 Q. I guess, one of the purposes for these  14 particular questions is with respect to the  15 objective of the communication.  16 MR. MACISAAC:  17 A. Uh-hm.  18 GREENE, Q.C.:  19 Q. The Board had asked for reports to get a full  20 understanding of the particular position, and  21 I want to understand how Hydro was applying  22 the colours and whether that will continue,  23 and I have to ask you - I think you said in  24 there you do a sobriety check, or did I  25 mishear you?</p>

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1 MR. MACISAAC:  
 2 A. I think we do a hard scrub and a pulse check  
 3 in terms of where we are.  
 4 GREENE, Q.C.:  
 5 Q. And you mentioned sobriety check?  
 6 MR. MACISAAC:  
 7 A. I don't know if I said sobriety or not.  
 8 GREENE, Q.C.:  
 9 Q. I think you did.  
 10 MR. MACISAAC:  
 11 A. I hope I didn't say that.  
 12 GREENE, Q.C.:  
 13 Q. I think you did, and I wondered if you had a  
 14 breathalyser up there as well.  
 15 CHAIRMAN:  
 16 Q. I sure heard that.  
 17 MR. MACISAAC:  
 18 A. Being honest with ourselves, how's that.  
 19 GREENE, Q.C.:  
 20 Q. Yes, okay, I'm getting used to some new  
 21 terminology this morning. So now if we could  
 22 go to Liberty's December 17th report in the  
 23 investigation, which has been filed as  
 24 Information 25 in this proceeding, and I'd  
 25 like to go to page 23, and here in December

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1 2014 report, Liberty, and that was a report  
 2 done in the investigation and it was Liberty's  
 3 final report on the causes, contributing  
 4 factors to the 2014 outages and recommended  
 5 actions to reduce the risk going forward.  
 6 Liberty raised this issue of Hydro's reporting  
 7 system and how it reports to the Board, and  
 8 I'd like to bring you to a couple of quotes in  
 9 there. In the second paragraph, "Throughout  
 10 the process, however, Liberty remained  
 11 concerned about Hydro's summary evaluation of  
 12 progress, which served as the key performance  
 13 indicators in most areas. Discussions with  
 14 Hydro produced a green, yellow, red system, as  
 15 its use would provide early warnings of any  
 16 emerging issues requiring immediate attention  
 17 by Hydro and to provide necessary information  
 18 for the Board. Liberty did not gain  
 19 confidence that this approach was working  
 20 successfully because Hydro essentially  
 21 continued to report the status in all measured  
 22 items as green". When we go down to the next  
 23 paragraph, we see that Hydro did accept  
 24 Liberty's recommendation and they actually did  
 25 in their reply to this report.

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1 MR. MACISAAC:  
 2 A. Uh-hm.  
 3 GREENE, Q.C.:  
 4 Q. And that Hydro had agreed to revise the  
 5 process to report catch-up items as yellow,  
 6 and the reason for requesting, re; definition,  
 7 was clear and consistent effective project  
 8 management reporting. Then the last  
 9 paragraph, "Liberty's observation has been  
 10 that Hydro seemed to continue reporting  
 11 without making, in practice, the change to  
 12 address catch-up items as yellow. Liberty  
 13 continued to observe green reporting from  
 14 items behind schedule", and here the comments  
 15 are with respect to schedule. I took you  
 16 through one which was the winter readiness  
 17 report for this year, will we see the same  
 18 issue, and I took you to one on cost with  
 19 respect to the CT. In terms of how Hydro has  
 20 been applying the practice after Liberty's  
 21 December 2014 report, it seems that Hydro  
 22 continues to mark as green either items behind  
 23 schedule, if they think they can catch up, or  
 24 items above cost if they're - and I'm not sure  
 25 where your discussion on the 10 percent took

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1 us.  
 2 MR. MACISAAC:  
 3 A. Uh-hm.  
 4 GREENE, Q.C.:  
 5 Q. So after these recommendations from Liberty,  
 6 did Hydro change its practices with respect  
 7 to; one, how it reports internally, and two,  
 8 how it reports to the Board?  
 9 MR. MACISAAC:  
 10 A. I -  
 11 GREENE, Q.C.:  
 12 Q. And in the two reports I just took you  
 13 through, I'm not sure that we see that change  
 14 as recommended.  
 15 MR. MACISAAC:  
 16 A. Okay, point taken, point taken. I would say  
 17 that do we have opportunities to further  
 18 improve the communication and reporting; I  
 19 would agree that there's always opportunity to  
 20 be better, and I would say that we agree and  
 21 we will look at reporting as something that  
 22 needs to work for yourselves and for  
 23 ourselves. What we try to do or endeavour to  
 24 do is to use one set of common reports, and  
 25 did we revisit based on that feedback from

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<p>1 Liberty; yes, we did.</p> <p>2 GREENE, Q.C.:</p> <p>3 Q. Has Hydro changed its own internal reporting</p> <p>4 system?</p> <p>5 MR. MACISAAC:</p> <p>6 A. I can honestly say that we look at it with</p> <p>7 additional diligence to ensure that we're</p> <p>8 getting it right. I don't believe that a</p> <p>9 change, a formal change, was made. We made</p> <p>10 sure that we're consistently getting it right</p> <p>11 to you on the project piece. I can't speak to</p> <p>12 the broader reporting because I'm speaking to</p> <p>13 the project piece.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. And with respect to going forward with respect</p> <p>16 to reporting to the Board?</p> <p>17 MR. MACISAAC:</p> <p>18 A. On the broader?</p> <p>19 GREENE, Q.C.:</p> <p>20 Q. Uh-hm.</p> <p>21 MR. MACISAAC:</p> <p>22 A. Yes, absolutely.</p> <p>23 GREENE, Q.C.:</p> <p>24 Q. So I understand that from this discussion that</p> <p>25 you have agreed to look at the actual manner</p>	<p>1 last exchange on reporting, I think for</p> <p>2 additional context, you should have a sense</p> <p>3 for continuous improvement in that space, so</p> <p>4 we use an external certified auditor from the</p> <p>5 Project Management Institute to come in and</p> <p>6 help us with benchmarking on our internal</p> <p>7 business processes and practices around</p> <p>8 project management and project execution. We</p> <p>9 used a PMI, Project Management Institute,</p> <p>10 certified auditor in each of 2011, 2013, and</p> <p>11 2015, and we've made steady progress year over</p> <p>12 year, and cost management and reporting is one</p> <p>13 dimension that they critique and review. You</p> <p>14 know, they have a broad perspective, but they</p> <p>15 use the gold standard for measurement which is</p> <p>16 PMBOK, which is Project Management Body of</p> <p>17 Knowledge, and we score ourselves against that</p> <p>18 to ensure that we're continuing to drive a</p> <p>19 higher level of professionalism around project</p> <p>20 management and project execution. Their most</p> <p>21 recent round of benchmarking with ourselves</p> <p>22 is, in fact, inside of this last quarter and I</p> <p>23 would say that the project execution and</p> <p>24 technical services group within Hydro would</p> <p>25 compare and compare favourably with any of the</p>
<p>Page 42</p> <p>1 in which Hydro does report these particular</p> <p>2 items to the Board, is that correct?</p> <p>3 MR. MACISAAC:</p> <p>4 A. On capital reporting, we're going to make sure</p> <p>5 that we've got a very representative report</p> <p>6 that you can look at and trust that it's</p> <p>7 accurate, and we endeavour to provide</p> <p>8 something on an ongoing basis that you know</p> <p>9 you can trust and that is accurate.</p> <p>10 GREENE, Q.C.:</p> <p>11 Q. You mentioned capital.</p> <p>12 MR. MACISAAC:</p> <p>13 A. Yes.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. I guess, my question was broader, also with</p> <p>16 respect to winter readiness reports.</p> <p>17 MR. MACISAAC:</p> <p>18 A. And given my new mandate effective today, on a</p> <p>19 broader basis, yes, you have my commitment.</p> <p>20 GREENE, Q.C.:</p> <p>21 Q. Okay. Now I'd like to look at Liberty's July</p> <p>22 6th report on prudence, and I'd like to go to</p> <p>23 page 13.</p> <p>24 MR. MACISAAC:</p> <p>25 A. If I could just for a second, in terms of that</p>	<p>Page 44</p> <p>1 engineering consulting houses in the province</p> <p>2 and within Canada. I mean, we scored very</p> <p>3 well and we've got a good team, and the people</p> <p>4 do good work. We can be better on the</p> <p>5 communication piece for sure.</p> <p>6 GREENE, Q.C.:</p> <p>7 Q. I guess, it's not only on the communication</p> <p>8 piece, it's trying to ensure that Hydro has</p> <p>9 the right information with respect to its</p> <p>10 decision making as well, and whether</p> <p>11 information is being reviewed - accurate</p> <p>12 information is being reviewed by the executive</p> <p>13 and what green, yellow, and red really mean,</p> <p>14 so it's more than just communication to other</p> <p>15 stakeholders, isn't it? On page 13, and why I</p> <p>16 brought you to that page, Liberty's Report in</p> <p>17 assessing the particular projects that they</p> <p>18 had been asked to look at for prudence, and</p> <p>19 one of them obviously was the new CT, and here</p> <p>20 in their summary for cost, "Capital cost for</p> <p>21 the new CT amount to approximately 119 million</p> <p>22 or about \$1,000.00 per kilowatt". So at the</p> <p>23 time that Liberty wrote its report and</p> <p>24 concluded that the cost with respect to the CT</p> <p>25 were reasonable, their understanding of the</p>

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<p>1 cost of that project was 119 million dollars, 2 is that correct? 3 MR. MACISAAC: 4 A. That's correct. 5 GREENE, Q.C.: 6 Q. And their comments with respect to project 7 management also were based on their 8 understanding of the progress reports that 9 they had reviewed, with the last one being 10 March 3rd? 11 MR. MACISAAC: 12 A. And I'll take you further down on the page, 13 and further down on the page, they also refer 14 to additional benchmarks that they used, which 15 is the 131 million and the 111 million, and 16 those are US dollars, and when you take the 17 128.5 and you use - so those are the goal 18 posts within which they've measured, and you 19 take the 128.5, which is where our finished 20 project lands and you use the conversion 21 factor of 10 percent, which is what Liberty 22 used, we're at 115, and conventional CT which 23 is actually what we've installed, they have it 24 in there at 131, and our job has come in at 25 115.</p>	<p>1 back and told you sooner. 2 GREENE, Q.C.: 3 Q. Now Hydro did advise the Board on July 31st, 4 so when did you finalize the arrangements with 5 ProEnergy? 6 MR. MACISAAC: 7 A. Probably some weeks before that. 8 GREENE, Q.C.: 9 Q. So when you say weeks, how many weeks would 10 that be? 11 MR. MACISAAC: 12 A. I'll have to check. 13 GREENE, Q.C.: 14 Q. Liberty filed its report on July 6th. Yes, 15 can I request an undertaking for Hydro to 16 advise as to when that claim was settled. 17 MR. MACISAAC: 18 A. Okay. 19 GREENE, Q.C.: 20 Q. I want to move to another topic, and here it 21 is to do with the capital cost estimates for 22 the projects that were made of the prudence 23 review, and I know you're here to speak for 24 the combustion turbine and the acquisition of 25 that, so feel comfortable if you feel that</p>
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<p>1 (10:00 a.m.) 2 GREENE, Q.C.: 3 Q. And perhaps we'll hear from Liberty based on 4 the increased cost of the project. 5 MR. MACISAAC: 6 A. Yes. 7 GREENE, Q.C.: 8 Q. But for the purpose of Liberty's Report of 9 July 6th, their understanding was that the 10 project cost was 119 million, as reflected in 11 this report, is that correct? 12 MR. MACISAAC: 13 A. And that was our understanding at the time 14 that we gave you the report too. 15 GREENE, Q.C.: 16 Q. And at no time did Hydro, even after knowledge 17 of the claim in March, prior to Liberty 18 issuing this report in July, advise either 19 Liberty or the Board that the cost had 20 increased? 21 MR. MACISAAC: 22 A. Because we didn't know where it was going to 23 finish, and we were inside of commercial 24 discussions with ProEnergy, and had we known 25 where it was going to land, we would have come</p>	<p>1 they should be deferred to the management and 2 accounting panel that will start next week. 3 MR. MACISAAC: 4 A. Uh-hm. 5 GREENE, Q.C.: 6 Q. But I couldn't - we have the Vice President of 7 Project Execution here, so I thought it would 8 be appropriate, and, in fact, if I didn't ask 9 you the questions, they might - I didn't want 10 the management and accounting panel to say, 11 oh, you had the perfect guy here and you 12 didn't, so - 13 MR. MACISAAC: 14 A. Okay. 15 GREENE, Q.C.: 16 Q. But feel comfortable - I know that isn't why 17 you're supposed to be here this morning. I 18 had planned to raise these questions with the 19 accounting panel, so you can feel free to 20 defer. 21 MR. MACISAAC: 22 A. This is an opportunity for them. 23 GREENE, Q.C.: 24 Q. I don't know if we need to go through each one 25 of them, but it's with respect to the</p>

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1 estimates for the project, and if I can take  
 2 you to each of these sources of information,  
 3 the first one was the black start project.  
 4 Hydro applied for and received approval for  
 5 capital of 1.26 million dollars and the final  
 6 cost as reflected in PR-PUB-NLH-113 was  
 7 \$762,000.00 for capital, something like 40  
 8 percent less the actuals were versus project  
 9 cost. For Unit 1, we see that Hydro applied  
 10 for and got approval for 12.8 million dollars  
 11 for the repair of Unit 1. When we look, and  
 12 if you want to go through each one of those,  
 13 it's going to take us a bit longer, but -  
 14 MR. MACDOUGALL:  
 15 Q. I don't think that would be necessary, Mr.  
 16 Chair and Ms. Greene.  
 17 GREENE, Q.C.:  
 18 Q. No, I don't either.  
 19 MR. MACDOUGALL:  
 20 Q. And there is a chance that Mr. MacIsaac will  
 21 simply defer these questions, I think.  
 22 GREENE, Q.C.:  
 23 Q. Okay.  
 24 MR. MACDOUGALL:  
 25 Q. But we understand you would like to put them

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1 to him to see if he has a comment.  
 2 GREENE, Q.C.:  
 3 Q. Yes.  
 4 MR. MACDOUGALL:  
 5 Q. And if not -- if he does, I'm sure he will  
 6 make them, but I don't think we have to go  
 7 through each item.  
 8 GREENE, Q.C.:  
 9 Q. Okay. I agree. Thank you though, Ms. Gray.  
 10 So the next one was unit one. That was 12.8  
 11 million applied for an approved and we see it  
 12 came in at about nine million, even adding on  
 13 the insurance. So that's the total cost. For  
 14 Sunnyside equipment replacement, Hydro applied  
 15 for and received approval for eight and a half  
 16 million dollars and we see that the actuals  
 17 came in at about seven million dollars. For  
 18 Western Avalon, we see that Hydro applied for  
 19 and approved for 1.5 million dollars and it  
 20 came in at about a million dollars in actual  
 21 expenses. So for those four particular  
 22 capital budget proposals that came before the  
 23 Board, the project costs for which Hydro  
 24 sought approval was much higher than the  
 25 actual dollars that were spent in the

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1 completion of the project, and you can see  
 2 from what I just went through, there were  
 3 significant variances. I think the highest  
 4 was probably 40 percent and the lowest might  
 5 have been 30 percent.  
 6 So my question, how were these estimates  
 7 prepared and are these indicative of Hydro's  
 8 normal approaches to capital project  
 9 estimates?  
 10 MR. MACISAAC:  
 11 A. So we will defer all of the detail, but I can  
 12 speak to it on a high level, if that's  
 13 acceptable. Is that okay?  
 14 GREENE, Q.C.:  
 15 Q. Certainly.  
 16 MR. MACISAAC:  
 17 A. Okay.  
 18 GREENE, Q.C.:  
 19 Q. Whatever you're comfortable with, Mr.  
 20 MacIsaac.  
 21 MR. MACISAAC:  
 22 A. So on a high level, there's no question that  
 23 we're going to have projects that are outliers  
 24 where you have two or three pizzas where you  
 25 either end up after you've submitted to the

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1 Board for approval and either the work method  
 2 or the work scope changes and you realize  
 3 either additional costs or you realize  
 4 additional savings. Those things happen. And  
 5 if you look at, from a high level, the number  
 6 of projects, the ones that you've talked about  
 7 would be a small sampling of the projects that  
 8 we would have done last year. If you look at  
 9 it from a consolidated level on regulated  
 10 project execution for Hydro, I would say that  
 11 in comparison to our project budgets, we've  
 12 come in under and that's different than what  
 13 we've done in the past.  
 14 So I would say that our project  
 15 estimating process has been reviewed  
 16 externally twice in the last three years where  
 17 we've brought in some folks to help us build  
 18 robustness inside of our project estimating  
 19 process and more deliberate inside of our work  
 20 breakdown structure. But in addition to that,  
 21 we also overlay a new standard, which is the  
 22 AACE standard for building. So there's --  
 23 building estimates, excuse me. So there's  
 24 additional robustness. So the further back  
 25 you go in time, I would say the robustness and

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1 the depth and the structure around our  
 2 estimating process is improved year over year.  
 3 Do we still have some outliers? Yeah, for  
 4 sure we do. Are we better year over year?  
 5 Yes, confidently we are better year over for  
 6 year. And do we see it as an opportunity  
 7 moving forward? Yeah, for sure.  
 8 GREENE, Q.C.:  
 9 Q. You're familiar with Hydro's -- Grant  
 10 Thornton's review of Hydro's financial  
 11 performance where they comment on the capital  
 12 budget process, are you?  
 13 MR. MACISAAC:  
 14 A. I haven't seen that.  
 15 GREENE, Q.C.:  
 16 Q. One of the issues raised by Grant Thornton in  
 17 the past has been that Hydro has not been able  
 18 to complete its capital budget and in fact,  
 19 there's been significant variance between  
 20 planned and actual. And when you mentioned  
 21 that you've gone with a new -- or a more  
 22 robust, I guess -- you built in robustness you  
 23 said with respect to the project estimating  
 24 budgeting processes. So these estimates --  
 25 and I didn't go to look for any variances that

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1 were large. I just happened to look at the  
 2 projects because I was looking at the ones for  
 3 this prudence review.  
 4 MR. MACISAAC:  
 5 A. Okay.  
 6 GREENE, Q.C.:  
 7 Q. I took from your answer that this new project  
 8 estimating budgeting process you have  
 9 developed should not produce these significant  
 10 variances? I happened to land upon the  
 11 outliers. Was that it?  
 12 MR. MACISAAC:  
 13 A. It should mitigate them and reduce them and  
 14 you know, if I look over the last three years  
 15 or the last four years, because I have a  
 16 limited view in terms of how long I've been  
 17 here, and I look at completion rates on  
 18 compliance, we've steadily improved year over  
 19 year and I think we've reported to the PUB in  
 20 that same context where if you look back, our  
 21 completion rate last year was 90 percent and  
 22 our budget compliance would have been very  
 23 close to the same and we come in on a  
 24 consolidated level under.  
 25 GREENE, Q.C.:

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1 Q. And perhaps we'll leave that to the management  
 2 accounting panel to go through the Grant  
 3 Thornton review.  
 4 MR. MACISAAC:  
 5 A. Sure, okay.  
 6 GREENE, Q.C.:  
 7 Q. And the last question with respect to your  
 8 preparation of capital proposals, the level of  
 9 confidence the Board can have in the estimates  
 10 that are put forward, I want to ensure that I  
 11 fully understood your answer. The ones that  
 12 we have looked at, the four particular ones  
 13 that were subject to the prudence review,  
 14 should not be considered by the Board to be  
 15 indicative generally of the accuracy of your  
 16 estimates? Is that what you're -  
 17 MR. MACISAAC:  
 18 A. I would say what we use is a standard approach  
 19 and it falls within AACE guideline for class  
 20 three estimates and what it should deliver to  
 21 the Board is -- and the whole idea is to not  
 22 detail engineer projects that may not  
 23 potentially be approved by the Board because  
 24 that would be lost or redundant effort. So  
 25 you bring them to a certain point where you've

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1 done sufficient work that the estimate is  
 2 representative and you put inside of that an  
 3 allowance or a contingency that represents the  
 4 amount of work that has been done at the  
 5 engineering and estimating level so that your  
 6 contingency allows you then to finish the  
 7 engineering portion, subject to Board  
 8 approval.  
 9 GREENE, Q.C.:  
 10 Q. I need to go -  
 11 MR. MACISAAC:  
 12 A. So it hasn't been detailed. It hasn't been  
 13 detailed at that point. It's indicative.  
 14 GREENE, Q.C.:  
 15 Q. So when you bring forward your capital budget  
 16 proposals, they're indicative?  
 17 MR. MACISAAC:  
 18 A. They're within that AACE class three standard  
 19 and we'll get you the definition for it.  
 20 GREENE, Q.C.:  
 21 Q. Okay. And I was going to ask for that.  
 22 Normally there's a range of -- you attach a  
 23 range of costs?  
 24 MR. MACISAAC:  
 25 A. Yes.

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<p>1 GREENE, Q.C.:</p> <p>2 Q. And what is it for -- I can't remember what it</p> <p>3 is.</p> <p>4 MR. MACISAAC:</p> <p>5 A. It's 20, plus or minus 20. The ACE standard</p> <p>6 for a class three estimate is plus or minus</p> <p>7 20.</p> <p>8 GREENE, Q.C.:</p> <p>9 Q. And that's the standard that Hydro is now</p> <p>10 using for it's project estimates?</p> <p>11 MR. MACISAAC:</p> <p>12 A. That's correct.</p> <p>13 GREENE, Q.C.:</p> <p>14 Q. I need to go back to one question. Ms. Glynn</p> <p>15 reminded me that in response to one question,</p> <p>16 you simply nodded your head and that the</p> <p>17 transcriber cannot record the nod. So, we</p> <p>18 were talking about the communication and the</p> <p>19 importance of the communication to -- one was</p> <p>20 to the Board with respect either to the status</p> <p>21 of projects, such as winter readiness, or the</p> <p>22 cost of a project, and I asked you if you</p> <p>23 agreed that the accurate reporting was also</p> <p>24 important for Hydro to have a proper</p> <p>25 indication of colours, if that's what you're</p>	<p>1 for costs you're saying that as long as it's</p> <p>2 within -- you think it's going to be within</p> <p>3 ten percent, you will colour it green, even</p> <p>4 though the particular budget may have been</p> <p>5 approved at a ten percent lower amount. Is</p> <p>6 that what I understood you to mean by the</p> <p>7 bandwidth?</p> <p>8 MR. MACISAAC:</p> <p>9 A. I'm sorry, can you ask the question again?</p> <p>10 GREENE, Q.C.:</p> <p>11 Q. In your answer, you gave two qualifications.</p> <p>12 One was that better communication around the</p> <p>13 bandwidth of ten percent, which I understood</p> <p>14 from our discussions earlier related to the</p> <p>15 cost, as long as a project cost is to be</p> <p>16 within ten percent of the budget, you consider</p> <p>17 that to be satisfactory and to be green. Did</p> <p>18 I understand that piece correctly about the</p> <p>19 bandwidth?</p> <p>20 MR. MACISAAC:</p> <p>21 A. So we've just had two conversations that I</p> <p>22 should make a direct linkage on, because</p> <p>23 they're relevant. So, I just explained the</p> <p>24 ACE standard for estimating. It contains a</p> <p>25 contingency or a bandwidth of 20 percent.</p>
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<p>1 using for green, yellow and red. So it's</p> <p>2 important not only for the Board and</p> <p>3 stakeholders to know the status of items and</p> <p>4 the cost of items, but also for Hydro to be</p> <p>5 making the appropriate decisions. And at that</p> <p>6 time, you did nod your head.</p> <p>7 MR. MACISAAC:</p> <p>8 A. So, I think a better answer would be we agree,</p> <p>9 we agree that we need to do a better job of</p> <p>10 explaining what the bandwidth around the</p> <p>11 colouration is and we'll do that and we agree</p> <p>12 that there's also an opportunity for improved</p> <p>13 communication.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. Now you mentioned -</p> <p>16 MR. MACISAAC:</p> <p>17 A. Did I answer the question?</p> <p>18 GREENE, Q.C.:</p> <p>19 Q. Well, you just threw something else that</p> <p>20 requires additional questions.</p> <p>21 MR. MACISAAC:</p> <p>22 A. Okay.</p> <p>23 GREENE, Q.C.:</p> <p>24 Q. You mentioned that you needed clarification</p> <p>25 about the bandwidth of ten percent, which is</p>	<p>1 GREENE, Q.C.:</p> <p>2 Q. Yes.</p> <p>3 MR. MACISAAC:</p> <p>4 A. Right, and we submit that to the Board for</p> <p>5 approval. And our colour coding on green for</p> <p>6 cost is based on ten percent. So, that</p> <p>7 shouldn't come as a surprise to the Board and</p> <p>8 if we haven't clearly communicated that, but</p> <p>9 if we go back to the earlier comment that I</p> <p>10 made to you, if we were bringing this report</p> <p>11 back across again to you and we're landing at</p> <p>12 eight and a half percent, we'd still be</p> <p>13 reflecting that we're green for cost.</p> <p>14 GREENE, Q.C.:</p> <p>15 Q. And that's what I understood. So the ten</p> <p>16 percent is a bandwidth that Hydro uses on</p> <p>17 cost?</p> <p>18 MR. MACISAAC:</p> <p>19 A. Yeah.</p> <p>20 GREENE, Q.C.:</p> <p>21 Q. With respect to continuing to mark it green,</p> <p>22 even though it may be above the project cost</p> <p>23 that was approved, but as long as it's within</p> <p>24 ten percent, you consider that to be green?</p> <p>25 MR. MACISAAC:</p>

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<p>1 A. Okay.</p> <p>2 GREENE, Q.C.:</p> <p>3 Q. What about schedule? When you are behind</p> <p>4 schedule in terms of a completion date, we</p> <p>5 have seen that Hydro will still mark it green</p> <p>6 because they feel it's judgment that they may</p> <p>7 catch up to the anticipated date.</p> <p>8 (10:15 a.m.)</p> <p>9 MR. MACISAAC:</p> <p>10 A. It depends on where you -</p> <p>11 GREENE, Q.C.:</p> <p>12 Q. And I didn't understand from your answer if</p> <p>13 there was any qualification.</p> <p>14 MR. MACISAAC:</p> <p>15 A. It depends on where you are in the completion</p> <p>16 of the work and if our project team inside of</p> <p>17 the risks and solves anticipates the</p> <p>18 opportunity for recovery and it's real, then</p> <p>19 you would continue to reflect that you're</p> <p>20 green. In the event that inside of doing your</p> <p>21 risks and solves, you anticipate that you're</p> <p>22 not going to be able to recover realistically</p> <p>23 and there's not enough time left in the</p> <p>24 schedule to recover, then you reflect it as</p> <p>25 yellow, and there are some -- also some</p>	<p>1 but even internally at Hydro with respect to</p> <p>2 appropriate decision making. Is that correct?</p> <p>3 MR. MACISAAC:</p> <p>4 A. So the second head nod was my agreeing that I</p> <p>5 own that and I'm committed to ensuring that</p> <p>6 the Board has solid information on winter</p> <p>7 readiness. So head nod, yes, and I own it in</p> <p>8 my new role as well.</p> <p>9 GREENE, Q.C.:</p> <p>10 Q. Okay. Thank you very much, Mr. MacIsaac.</p> <p>11 Those are all my questions.</p> <p>12 MR. MACISAAC:</p> <p>13 A. Okay, thank you.</p> <p>14 CHAIRMAN:</p> <p>15 Q. So Mr. O'Brien, sir.</p> <p>16 MR. JOHN MACISAAC, CROSS-EXAMINATION BY MR. LIAM O'BRIEN</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. Thank you, Mr. Chair. Good morning, Mr.</p> <p>19 MacIsaac.</p> <p>20 MR. MACISAAC:</p> <p>21 A. Good morning.</p> <p>22 MR. O'BRIEN:</p> <p>23 Q. I'm going to -</p> <p>24 MR. MACISAAC:</p> <p>25 A. Sorry if I'm turning my back to you.</p>
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<p>1 threshold levels as well that go along with</p> <p>2 that. So I'll have to get those for you. But</p> <p>3 we do have definition around those that's more</p> <p>4 formal.</p> <p>5 GREENE, Q.C.:</p> <p>6 Q. I was going to ask. Is this a judgment</p> <p>7 decision or an -</p> <p>8 MR. MACISAAC:</p> <p>9 A. No, there's definitions around the colour</p> <p>10 coding.</p> <p>11 GREENE, Q.C.:</p> <p>12 Q. With respect to schedule?</p> <p>13 MR. MACISAAC:</p> <p>14 A. Um-hm.</p> <p>15 GREENE, Q.C.:</p> <p>16 Q. Okay. And again as an undertaking if you</p> <p>17 could provide that, please, for that? So</p> <p>18 coming back to the question which was the</p> <p>19 effective communication, where you are with</p> <p>20 respect to cost and schedule is very</p> <p>21 important, not only to advise stakeholders of</p> <p>22 such -- particularly given where we are in</p> <p>23 such circumstances that winter readiness</p> <p>24 continues to be an issue. So it is important</p> <p>25 not only for the Board and for stakeholders,</p>	<p>1 MR. O'BRIEN:</p> <p>2 Q. Ms. Greene hasn't taken you through this, but</p> <p>3 just for the record, I just wanted to take you</p> <p>4 through some of your background here with</p> <p>5 you're a Nalcor employee -- I'm going to treat</p> <p>6 you as a Nalcor employee for today.</p> <p>7 MR. MACISAAC:</p> <p>8 A. Okay.</p> <p>9 MR. O'BRIEN:</p> <p>10 Q. Based on our discussion earlier this morning,</p> <p>11 but your role as VP of project execution and</p> <p>12 technical services, I wonder if you could take</p> <p>13 me through what that role entails yourself?</p> <p>14 Just give me an overview of what that role</p> <p>15 entailed.</p> <p>16 MR. MACISAAC:</p> <p>17 A. So I'm the functional coach to our project</p> <p>18 execution and technical services team and I</p> <p>19 work directly with our discipline leads and</p> <p>20 our managers of execution.</p> <p>21 MR. O'BRIEN:</p> <p>22 Q. Okay.</p> <p>23 MR. MACISAAC:</p> <p>24 A. And I also do formal reviews on an ongoing</p> <p>25 basis with our teams, based on my ability to</p>

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<p>1 join them inside of reviews on the work that</p> <p>2 we're doing on a regular basis. So I'm a</p> <p>3 hands-on guy.</p> <p>4 MR. O'BRIEN:</p> <p>5 Q. Okay. And as well as that role, until</p> <p>6 yesterday, what other role did you play in the</p> <p>7 Nalcor group?</p> <p>8 MR. MACISAAC:</p> <p>9 A. I was the executive sponsor for Churchill</p> <p>10 Falls (Labrador) Corporation.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. Okay. And how much of that -- how much of</p> <p>13 your time was taken with that particular role?</p> <p>14 MR. MACISAAC:</p> <p>15 A. Okay, so at -</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Ballpark.</p> <p>18 MR. MACISAAC:</p> <p>19 A. If you were to look at my timesheets and go</p> <p>20 back over the last four years, I would say</p> <p>21 that on average I spend 25 percent of my time</p> <p>22 with Hydro, 25 percent of my time with CF(L)Co</p> <p>23 and the remaining 50 would be a split at the</p> <p>24 Nalcor level which goes back to both Hydro and</p> <p>25 CF(L)Co.</p>	<p>1 reported directly to you, one of which was, I</p> <p>2 guess, a Hydro employee? Is that right?</p> <p>3 MR. MACISAAC:</p> <p>4 A. Okay.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. And you may not have been prepared for some of</p> <p>7 these questions today. I'm not -</p> <p>8 MR. MACISAAC:</p> <p>9 A. You're right.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. I'm going to try to stay away from questions</p> <p>12 involving the GRA, but I do want to get a</p> <p>13 flavour and partially because you had</p> <p>14 indicated you were involved with the CT</p> <p>15 process prior to the actual procurement in</p> <p>16 2014 and I want to get into some of your role</p> <p>17 prior to that.</p> <p>18 MR. MACISAAC:</p> <p>19 A. Sure, absolutely.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Okay. So I just want to get some of the</p> <p>22 background there in terms of that. So you're</p> <p>23 at the head of that structure. In terms of</p> <p>24 any Hydro employees that would have reported</p> <p>25 directly to you, would it just be on the</p>
<p>Page 66</p> <p>1 MR. O'BRIEN:</p> <p>2 Q. Okay. And that's sort of the background, I</p> <p>3 guess, I wanted to get.</p> <p>4 MR. MACISAAC:</p> <p>5 A. Okay.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. I wonder if we could bring up, from the GRA,</p> <p>8 the PUB-NLH-138, Revision 2? And this is just</p> <p>9 the Org chart. I just wanted to have a quick</p> <p>10 look at that and the attachment.</p> <p>11 MR. MACISAAC:</p> <p>12 A. Sure.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. The first page here. So, as VP of Project</p> <p>15 Execution and Technical Services, you were</p> <p>16 part of the Nalcor leadership team? Is that</p> <p>17 right?</p> <p>18 MR. MACISAAC:</p> <p>19 A. Correct.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Okay. And if we go to page nine of that, I</p> <p>22 think this is the structure that has you at</p> <p>23 the top. Yeah, okay, so going to have a look</p> <p>24 at that. So, the three employees under that</p> <p>25 that would have -- under you would have</p>	<p>Page 68</p> <p>1 right-hand side there of that screen there,</p> <p>2 anyone that would have been Hydro that report</p> <p>3 directly to you?</p> <p>4 MR. MACISAAC:</p> <p>5 A. So I'm going to be really upfront with you and</p> <p>6 say I struggle to differentiate between Hydro</p> <p>7 and Nalcor resources when I meet someone on</p> <p>8 the third floor.</p> <p>9 MR. O'BRIEN:</p> <p>10 Q. Okay.</p> <p>11 MR. MACISAAC:</p> <p>12 A. Right. And I'm not going to contradict what</p> <p>13 our other folks have said inside the GRA in</p> <p>14 terms of who works for Nalcor and who works</p> <p>15 for Hydro. I think there's a lot of nuances</p> <p>16 in that space. So you said, you know, folks</p> <p>17 that are on the screen that work for Nalcor</p> <p>18 and folks that are on the screen that work for</p> <p>19 Hydro, I can't answer those questions for you,</p> <p>20 but what I can tell you is that inside of the</p> <p>21 work that we do that is project execution, we</p> <p>22 have a whole stable of folks that are</p> <p>23 dedicated to doing work on regulated Hydro and</p> <p>24 that capital work and then inside of our</p> <p>25 maintenance -- our matrix structure, excuse</p>

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<p>1 me, from that matrix, we actually pull across 2 and pull in people that have relevant 3 expertise on certain pieces of work that add 4 value to the folks that are already inside of 5 regulated Hydro. 6 So there's -- Greg Reid, for example, is 7 our manager of project execution for regulated 8 Hydro. He has program managers that work 9 directly for him. Below those program 10 managers are project managers that are 11 dedicated full time to regulated Hydro and 12 then below those project managers are whole 13 teams of folks that work specifically for 14 regulated Hydro. 15 MR. O'BRIEN: 16 Q. Okay. 17 MR. MACISAAC: 18 A. But I can't tell you when I meet someone in 19 the hallway on the third floor that they're a 20 Nalcor or a Hydro person. Sorry, our third 21 floor is our engineering floor. 22 MR. O'BRIEN: 23 Q. And that may be fair, I guess, in terms of who 24 reports directly to you and who may report 25 into those individuals. So I can understand</p>	<p>1 a summary of the job function there. If we go 2 down probably halfway in the summary, "the VP 3 provides ongoing functional leadership and 4 direction across all areas of the company with 5 a focus on ensuring best practice processes 6 and standards in the areas of asset 7 management, project design and project 8 management." So I take it that's across all 9 of Nalcor's lines of business? Is that right? 10 MR. MACISAAC: 11 A. With focus on Churchill Falls, Hydro, the 12 other non-regulated entities, excluding oil 13 and gas, Bull Arm fabrication, energy 14 marketing. So it's predominantly within two 15 lines of business, regulated and non-regulated 16 electricity. 17 MR. O'BRIEN: 18 Q. Electricity, okay. And when we see here the 19 areas of asset management, project design and 20 project management, so those are sort of three 21 areas, I guess, but the last two might sort of 22 combine. The asset management concept, what 23 was your role with respect to asset management 24 as it pertains to Hydro? 25 MR. MACISAAC:</p>
<p>1 that. 2 MR. MACISAAC: 3 A. Yeah. 4 MR. O'BRIEN: 5 Q. I guess what I'm trying to get a flavour for 6 is what your understanding is, and maybe the 7 best thing to do is just have a quick look at 8 your job description and that might sort of 9 help us get an idea as to sort of what that 10 role entails. 11 MR. MACISAAC: 12 A. Okay. 13 MR. O'BRIEN: 14 Q. I wonder if we could pull up PUB-229, 15 Attachment 1, at page ten? Like I say, I just 16 want to get an idea as to sort of what your 17 role would have been with respect to the Hydro 18 piece, inside of -- and I'll say PETS just 19 rather than use the full vernacular there. 20 MR. MACISAAC: 21 A. Sure. 22 MR. O'BRIEN: 23 Q. So this is your job description or was your 24 job description as Vice-President Project 25 Execution and Technical Services. So there's</p>	<p>1 A. Functional coach for asset management. 2 MR. O'BRIEN: 3 Q. Okay. And what does a functional coach do? 4 MR. MACISAAC: 5 A. Creates the clear targets, builds the road map 6 for the year inside of what are the things 7 that will be executed and ensures that we 8 measure and hold ourselves accountable against 9 deliverables inside of each given year. 10 MR. O'BRIEN: 11 Q. Okay. 12 MR. MACISAAC: 13 A. Sets strategy at the beginning, sets vision at 14 the beginning, provides a road map. 15 MR. O'BRIEN: 16 Q. Okay. 17 MR. MACISAAC: 18 A. And then measures. 19 MR. O'BRIEN: 20 Q. And just to get an idea then, does that 21 involve maintenance strategies, that sort of 22 thing? Are you responsible for that or does 23 that fall into the operation piece for Hydro? 24 MR. MACISAAC: 25 A. It crosses over. So strategically, inside of</p>

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<p>1 the office of asset management, when you talk</p> <p>2 about best practice and support strategy and</p> <p>3 talk the how piece, both the what and the how.</p> <p>4 Then out in the line of business, they own it</p> <p>5 from an execution perspective.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. Okay. And so that's where Hydro's operation</p> <p>8 owns that, from an execution perspective.</p> <p>9 MR. MACISAAC:</p> <p>10 A. Yeah. So there's asset managers who are the</p> <p>11 asset owners embedded within the line of</p> <p>12 business.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. Okay. And you don't have any oversight over</p> <p>15 that portion of -- like the ownership of</p> <p>16 deliverables, I guess, on -</p> <p>17 MR. MACISAAC:</p> <p>18 A. Yesterday or today?</p> <p>19 MR. O'BRIEN:</p> <p>20 Q. Well, that's a fair question, I guess.</p> <p>21 Yesterday, you wouldn't have had oversight</p> <p>22 over that?</p> <p>23 MR. MACISAAC:</p> <p>24 A. From a yesterday perspective, it's more</p> <p>25 coaching on strategy and best practice.</p>	<p>1 A. So there is actually a dedicated resource in</p> <p>2 that space. Within the office of asset</p> <p>3 management, there's a manager who leads the</p> <p>4 agenda in that space.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. And that's a Nalcor employee, I take it?</p> <p>7 MR. MACISAAC:</p> <p>8 A. I'm going to say yes, I believe so.</p> <p>9 MR. O'BRIEN:</p> <p>10 Q. Okay.</p> <p>11 MR. MACISAAC:</p> <p>12 A. But again -</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. I think it is, but I'm not sure.</p> <p>15 MR. MACISAAC:</p> <p>16 A. I think you're probably right.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. Okay. So in terms of you overseeing that</p> <p>19 role, would that person report directly into</p> <p>20 you?</p> <p>21 MR. MACISAAC:</p> <p>22 A. That's -- well, it's changed several times,</p> <p>23 but yes, that's correct.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. All right. And for providing directional</p>
<p>1 MR. O'BRIEN:</p> <p>2 Q. Okay.</p> <p>3 MR. MACISAAC:</p> <p>4 A. And today, it's about ownership and driving</p> <p>5 those best practices forward.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. That's right, okay. So I guess yesterday when</p> <p>8 we talked about Hydro and in this GRA earlier</p> <p>9 on we've been talking a fair bit about single</p> <p>10 point of accountability for Hydro. Yesterday</p> <p>11 it was Mr. Henderson and today, going forward,</p> <p>12 it'll be you?</p> <p>13 MR. MACISAAC:</p> <p>14 A. Correct.</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. Okay. I'm just wondering in terms of -- if we</p> <p>17 scroll down again here, the key responsibility</p> <p>18 areas. The first one there "interacts with</p> <p>19 lines of business, leaders and asset owners in</p> <p>20 facilitating the ongoing development of the</p> <p>21 long term asset management plan." Is it</p> <p>22 something that you own in developing that plan</p> <p>23 or is that just, again, a functional coach to</p> <p>24 assist with that plan?</p> <p>25 MR. MACISAAC:</p>	<p>1 coaching to the asset management, the third</p> <p>2 bullet here, how much of your time would be</p> <p>3 taken up in that role?</p> <p>4 MR. MACISAAC:</p> <p>5 A. Well, I'm pretty passionate in that space</p> <p>6 actually. Before I came to Hydro and to</p> <p>7 Nalcor, I was the director of asset management</p> <p>8 for the Canadian Group of Companies for McCain</p> <p>9 Foods.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. Okay.</p> <p>12 MR. MACISAAC:</p> <p>13 A. And I've been doing asset management work and</p> <p>14 project execution work for about 25 years.</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. Okay.</p> <p>17 MR. MACISAAC:</p> <p>18 A. So in this particular space, I'm pretty</p> <p>19 passionate, and if you were on our third</p> <p>20 floor, you can go into a room that is nothing</p> <p>21 by asset management and all the work that we</p> <p>22 do inside of regulated Hydro related to asset</p> <p>23 management and Mr. Mazzini from Liberty has</p> <p>24 been inside the room.</p> <p>25 MR. O'BRIEN:</p>

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<p>1 Q. So you're fairly focused yourself on that?</p> <p>2 MR. MACISAAC:</p> <p>3 A. Again, I'm a hands-on guy.</p> <p>4 MR. O'BRIEN:</p> <p>5 Q. You're hands on, okay. And that includes</p> <p>6 Hydro, and largely Hydro and CF(L)Co I would</p> <p>7 have thought, just based on your earlier</p> <p>8 answers.</p> <p>9 MR. MACISAAC:</p> <p>10 A. That's correct.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. And just give me an idea, when it comes to</p> <p>13 project management and execution on Hydro</p> <p>14 projects, are you the last line of</p> <p>15 accountability or were you the last line sort</p> <p>16 of prior to today up to Mr. Martin? Would you</p> <p>17 have taken over projects for Hydro? Was that</p> <p>18 your role to deal with the projects, the</p> <p>19 capital projects and management of them?</p> <p>20 MR. MACISAAC:</p> <p>21 A. Would you mind asking that question one more</p> <p>22 time?</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. Sure, and just trying to get a flavour in</p> <p>25 terms of accountability for capital projects,</p>	<p>1 MR. O'BRIEN:</p> <p>2 Q. So for example, the purchase of the CT that</p> <p>3 we're talking about here today, that clearly</p> <p>4 fell within your role.</p> <p>5 MR. MACISAAC:</p> <p>6 A. Absolutely.</p> <p>7 MR. O'BRIEN:</p> <p>8 Q. You're here testifying for it.</p> <p>9 MR. MACISAAC:</p> <p>10 A. Yeah.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. Prior to the actual 2014 period when the</p> <p>13 application got put forward, you had a</p> <p>14 significant part in looking into that CT</p> <p>15 itself and the project execution of that,</p> <p>16 would you?</p> <p>17 MR. MACISAAC:</p> <p>18 A. I wouldn't say a significant involvement in</p> <p>19 the front end pre-work.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Okay.</p> <p>22 MR. MACISAAC:</p> <p>23 A. That would have fallen to our discipline lead</p> <p>24 of mechanical engineering and another resource</p> <p>25 or two to go out to the market in support of</p>
<p>Page 78</p> <p>1 whether or not there's a distinction on that</p> <p>2 versus operational.</p> <p>3 MR. MACISAAC:</p> <p>4 A. On capital projects, yeah.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. That falls within your role?</p> <p>7 MR. MACISAAC:</p> <p>8 A. In my previous life, yesterday, that's me. I</p> <p>9 own it.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. That was it. So if there's a Hydro project</p> <p>12 that needed to be executed and dealt with,</p> <p>13 that fell within your group?</p> <p>14 MR. MACISAAC:</p> <p>15 A. That's me.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Yeah, that's you, okay.</p> <p>18 MR. MACISAAC:</p> <p>19 A. Yeah. Well, it's actually our team, but I own</p> <p>20 it for our team.</p> <p>21 MR. O'BRIEN:</p> <p>22 Q. For your team, okay.</p> <p>23 MR. MACISAAC:</p> <p>24 A. That's correct.</p> <p>25 (10:30 a.m.)</p>	<p>Page 80</p> <p>1 that discipline lead, go out to the market and</p> <p>2 identify options that were out there, and I</p> <p>3 know I've said it in a previous reply, there</p> <p>4 are a number of new and used and new and</p> <p>5 unused options that we looked at. I think</p> <p>6 that in a previous RFI response, we said we</p> <p>7 evaluated and looked at 28 different options.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. Okay. And I think what I will do a little bit</p> <p>10 later in my questioning, I'll take you through</p> <p>11 sort of when you got to Nalcor, when you</p> <p>12 started and sort of what your role would have</p> <p>13 been in terms of generation addition and that</p> <p>14 kind of thing, and I will ask you some</p> <p>15 questions on that. But you did have a role, I</p> <p>16 take it, prior to January 2014 in terms of</p> <p>17 looking at the procurement of a CT?</p> <p>18 MR. MACISAAC:</p> <p>19 A. From the technical perspective, building scope</p> <p>20 and estimates and identifying options that</p> <p>21 were out there, yes. From a strategic</p> <p>22 planning perspective, I defer to my colleague,</p> <p>23 Mr. Humphries, and I think he's already spoken</p> <p>24 to the planning piece around this.</p> <p>25 MR. O'BRIEN:</p>

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<p>1 Q. And that's what I would expect, and I am going 2 to ask you, as I go through my questions, some 3 of the information that we have that Mr. 4 Humphries has answered, and you can tell me if 5 you were aware of it at the time, that kind of 6 thing, but that's what I expected your 7 responses to be.</p> <p>8 MR. MACISAAC: 9 A. I'll do my best.</p> <p>10 MR. O'BRIEN: 11 Q. Okay. In terms of direction then, you would 12 have reported directly to Mr. Martin prior to 13 today?</p> <p>14 MR. MACISAAC: 15 A. I still do.</p> <p>16 MR. O'BRIEN: 17 Q. You still do, yeah, and that's true.</p> <p>18 MR. MACISAAC: 19 A. Until someone tells me otherwise.</p> <p>20 MR. O'BRIEN: 21 Q. That's right, yeah. Would there be any cross 22 reporting between yourself and Mr. Henderson? 23 And what I mean by that is when you're doing 24 projects for Hydro, did you have any 25 accountability to report to Mr. Henderson?</p>	<p>1 A. McCain Foods Canada</p> <p>2 MR. O'BRIEN: 3 Q. Okay. So you had significant -- you were 4 there for a significant period of time, I take 5 it?</p> <p>6 MR. MACISAAC: 7 A. I was with McCain Foods Canada for ten years. 8 I was with McCain Foods Europe for five, and 9 before that, I was with Michelin for ten.</p> <p>10 MR. O'BRIEN: 11 Q. Okay. And did all of those companies have a 12 matrix organization?</p> <p>13 MR. MACISAAC: 14 A. Some of them, yes.</p> <p>15 MR. O'BRIEN: 16 Q. Okay. And so when you arrived at Nalcor, you 17 had some of that background. In terms of how 18 the PETS group sort of fits in, I know you 19 talked about people going back and forth. 20 What's your flavour as to how the project 21 execution team fits in to that matrix? Is it 22 just that they look at the resources for all 23 of these groups? Do they decide where 24 resources go, how scheduling gets done for all 25 of the lines of business under Nalcor? How</p>
<p style="text-align: right;">Page 82</p> <p>1 MR. MACISAAC: 2 A. Rob was our -- Rob Henderson, excuse me, was 3 our customer.</p> <p>4 MR. O'BRIEN: 5 Q. Okay. So did you take direction then from Rob 6 Henderson at all?</p> <p>7 MR. MACISAAC: 8 A. We don't move stuff through capital without 9 Rob's endorsement.</p> <p>10 MR. O'BRIEN: 11 Q. And in terms of, just at a high level, I 12 guess, when you started with Nalcor, that was 13 the end of 2010, I think is what you testified 14 to?</p> <p>15 MR. MACISAAC: 16 A. October 2010.</p> <p>17 MR. O'BRIEN: 18 Q. October, okay. And when you started, at that 19 point in time, had you had any experience with 20 a matrix type organization?</p> <p>21 MR. MACISAAC: 22 A. Yes.</p> <p>23 MR. O'BRIEN: 24 Q. Okay. And what organization was that?</p> <p>25 MR. MACISAAC:</p>	<p style="text-align: right;">Page 84</p> <p>1 does that work?</p> <p>2 MR. MACISAAC: 3 A. There's a couple of different questions there. 4 I think the first part of the question is 5 around structure.</p> <p>6 MR. O'BRIEN: 7 Q. Sure.</p> <p>8 MR. MACISAAC: 9 A. So do you want me to speak to that piece?</p> <p>10 MR. O'BRIEN: 11 Q. Well, I under -- well, sure, if you like, just 12 in terms of the structure.</p> <p>13 MR. MACISAAC: 14 A. I'm a visual guy, but I'll have to try to 15 paint a picture with my hands. So if you were 16 to look at the organization or the org chart 17 like a box, right, inside that box you would 18 have a couple of columns, three of them 19 actually. So you have a column that is 20 project execution, regulated. You have a 21 column that's project execution, non- 22 regulated. You have support services which 23 are the folks that bring support to project 24 execution. And then you have the technical 25 services discipline leads up the side, and the</p>

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<p>1 folks that we're talking about actually are in 2 three of those pieces. So the dedicated 3 resources that support project execution 4 regulated are in one of the columns. 5 MR. O'BRIEN: 6 Q. Right. 7 MR. MACISAAC: 8 A. The support services folks bring support to 9 those project services people, project 10 execution people, and the discipline leads and 11 their supporting resources bring their 12 expertise and knowledge across to technical 13 support for project execution, and that in 14 fact is how the matrix works. It's very 15 simple. So, in the case of project execution 16 regulated, you have a column that receives 17 support and input from support services, 18 planning, surveying, drafting, design work, 19 and then you also have another group of folks 20 who are the discipline leads and they have 21 design engineers that work for them and they 22 also bring support to that same column of 23 folks that are project execution. 24 Inside of that project execution column, 25 there is a manager, Mr. Reid, Greg Reid. He</p>	<p>1 performed the following year? Is that right? 2 MR. MACISAAC: 3 A. It's a little bit further forward facing than 4 that. 5 MR. O'BRIEN: 6 Q. Sure, maybe a few years into the future as 7 well, I guess. 8 MR. MACISAAC: 9 A. So there's robustness in the five-year view 10 and there's a different level of detail in the 11 ten-year view and then inside of the year one 12 view that you're looking ahead, there's a full 13 involvement from the discipline leads. So, 14 Dave Hicks or Terry Gardiner who are 15 discipline leads are directly involved and 16 their teams have resources on an ongoing 17 basis, taking what's in the long term plan and 18 pulling it forward and fully developing 19 proposals and reviewing them with operations, 20 feeding the pipeline that becomes our eventual 21 submission to the PUB for capital for the 22 coming year. 23 MR. O'BRIEN: 24 Q. Okay. And in terms of say resourcing, in 25 order to resource those projects for the next</p>
<p>Page 86</p> <p>1 has program managers. Those program managers 2 have a portfolio of projects. Underneath 3 those program managers, they have project 4 managers who have discreet individual project 5 teams. 6 MR. O'BRIEN: 7 Q. Okay. I think I got - 8 MR. MACISAAC: 9 A. Does that answer your question? 10 MR. O'BRIEN: 11 Q. I think I got the picture in terms of the 12 structure. 13 MR. MACISAAC: 14 A. Okay. 15 MR. O'BRIEN: 16 Q. In terms of -- let's talk, I guess, in terms 17 of capital projects on an annual basis. 18 That's part of PETS, that group's role, is 19 that right? 20 MR. MACISAAC: 21 A. It is. 22 MR. O'BRIEN: 23 Q. Okay. So when you look at capital projects on 24 an annual basis, you build your capital budget 25 on the basis of what projects are going to be</p>	<p>Page 88</p> <p>1 year, how is it that the PETS group, I guess, 2 looks at -- I guess you would agree with me 3 that where Newfoundland and Labrador Hydro is 4 a regulated company that its interest ought to 5 be dominant in terms of the other lines of 6 business on a go-forward basis. They're a 7 regulated company, so they have to ensure that 8 they have the resources so that they can 9 provide safe, least cost, reliable service to 10 its customers, right? You'd agree to that? 11 MR. MACISAAC: 12 A. Safe, reliable, least cost, correct, yeah. 13 MR. O'BRIEN: 14 Q. Okay. So in terms of the resourcing necessary 15 to do that, would you agree that, from a 16 capital perspective going forward each year 17 that Hydro should be the focus for project 18 management? 19 MR. MACISAAC: 20 A. Hydro should? 21 MR. O'BRIEN: 22 Q. Should be the focus, the dominant focus for 23 project management? 24 MR. MACISAAC: 25 A. So that's a bit of a loaded question. I think</p>

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<p>1 the way I would answer it is that on an 2 ongoing basis, we ensure that we have the 3 right resource level, a plan and a structure 4 around ensuring that we deliver on our Hydro 5 objectives.</p> <p>6 MR. O'BRIEN: 7 Q. Okay.</p> <p>8 MR. MACISAAC: 9 A. So today, for example, you can walk in on the 10 third floor and you can see a structure up on 11 the wall for 2016 that shows all of the 12 resources for all of the work that is in our 13 2016 plan and it's up on the wall today.</p> <p>14 MR. O'BRIEN: 15 Q. Okay.</p> <p>16 MR. MACISAAC: 17 A. So there are dedicated resources, fully mapped 18 out, identified and the plan is resourced for 19 next year, subject to approval.</p> <p>20 MR. O'BRIEN: 21 Q. Subject to approval, okay. And in terms of -- 22 we've heard a fair bit of testimony on the 23 shared services and resources inside of this 24 matrix structure. How do you -- how does PETS 25 make sure, that group make sure, that Hydro</p>	<p>1 there ever been an instance where you haven't 2 had the appropriate resources or the necessary 3 resources to meet with the capital projects 4 for Hydro?</p> <p>5 MR. MACISAAC: 6 A. We now do resource levelling in advance of 7 submitting the project work. And has there 8 ever been an instance in the past where we 9 haven't had the resources to do all of the 10 work? I can't speak to what we did before 11 2010 timeframe, but what I can say is on an 12 ongoing basis now, we do resource levelling on 13 our master plan in order to ensure that we 14 have the resources required and when it comes 15 to ensuring that we have the right resources, 16 sometimes that means that we look outside 17 ourselves and in the event that -- because we 18 have what I would call a 70-20-10 model inside 19 of our overall engineering group and 70-20-10 20 is that we have 70 percent of the work is work 21 that we do with our own forces always and it's 22 core. 20 percent is work that are flexible 23 engagements and sometimes that means that we 24 look outside ourselves and that last ten 25 percent is break-in work that we contract</p>
<p>Page 90</p> <p>1 has the proper resources to do the capital 2 projects they need on an ongoing basis?</p> <p>3 MR. MACISAAC: 4 A. So what we do is, on an ongoing basis, we use 5 a tool called Primavera and we put all of our 6 capital project work into that tool and 7 identify the resources required to execute the 8 year. So the Primavera detailed resource 9 planning, and it's the same that we do out in 10 the line of business as well, is in a place 11 where you can identify the resources required 12 by week, by discipline, to lead the execution 13 of the work and that forms the first iteration 14 of what our resource needs are for the coming 15 year and then we look at what we have and if 16 we need to fine tune and adjust where we have 17 people working inside of the different pieces 18 of capital work.</p> <p>19 MR. O'BRIEN: 20 Q. And you will adjust if you need to? Is that 21 how that works?</p> <p>22 MR. MACISAAC: 23 A. We do.</p> <p>24 MR. O'BRIEN: 25 Q. Okay. And if there's an instance where -- has</p>	<p>Page 92</p> <p>1 where there's something unanticipated. And I 2 think we've spoken to the Board before about 3 the 70-20-10.</p> <p>4 MR. O'BRIEN: 5 Q. Okay. And that's -- and how long has that 6 sort of been in place or has that sort of been 7 there since you were -- since you've been 8 there?</p> <p>9 MR. MACISAAC: 10 A. Yes.</p> <p>11 MR. O'BRIEN: 12 Q. It has been?</p> <p>13 MR. MACISAAC: 14 A. It was brought into effect inside of 2011 15 where we said we needed to build a flexible 16 model and that was in anticipation of the 17 growing capital program that we had in the 18 pipeline.</p> <p>19 MR. O'BRIEN: 20 Q. Okay. Now just before I get into the CT - 21 MR. MACISAAC: 22 A. You are going to ask me some questions on the 23 CT, are you?</p> <p>24 MR. O'BRIEN: 25 Q. - I have one more question to ask you. Yeah,</p>

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<p>1 I am. I have one more question to ask you.</p> <p>2 MR. MACISAAC:</p> <p>3 A. Okay.</p> <p>4 MR. O'BRIEN:</p> <p>5 Q. And partially a line of questioning and</p> <p>6 partially because Mr. Martin said you'd be</p> <p>7 able to answer them. So I'm going to ask you</p> <p>8 some questions -</p> <p>9 MR. MACISAAC:</p> <p>10 A. I'm going to try.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. - on one of the Informations, Information No.</p> <p>13 6, and this is the TL 267 line.</p> <p>14 MR. MACISAAC:</p> <p>15 A. Okay.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. It'll come up on the screen, but I may not</p> <p>18 need to refer to the document. I'm wondering</p> <p>19 whether or not you're -- in Newfoundland and</p> <p>20 Labrador Hydro's 2016-2020 capital plan that</p> <p>21 was filed, it talks about this TL 267 project,</p> <p>22 the 230 kV transmission line from Bay D'Espoir</p> <p>23 to Western Avalon. Were you a part of putting</p> <p>24 together that capital plan? Did you play a</p> <p>25 role?</p>	<p>1 MR. O'BRIEN:</p> <p>2 Q. Okay. And I'm wondering in terms of what role</p> <p>3 you may have played in terms of making that</p> <p>4 decision. Were you part of making that</p> <p>5 decision?</p> <p>6 MR. MACISAAC:</p> <p>7 A. On a very limited basis. I was consulted and</p> <p>8 the discussion was around leveraging synergies</p> <p>9 with Muskrat Falls and the fact that they</p> <p>10 already had a team that was going to be doing</p> <p>11 work in that corridor and that there would be</p> <p>12 project management and construction</p> <p>13 contractual synergies and it would make full</p> <p>14 sense to have them lead that work and that was</p> <p>15 the extent of the conversation because we knew</p> <p>16 that there was going to be another large</p> <p>17 contract entity moving through that same</p> <p>18 shared common corridor and for the reasons of</p> <p>19 safety and leveraging synergies, both from an</p> <p>20 engineering project management and also</p> <p>21 potentially contractually, that it made full</p> <p>22 sense for the team of folks that are called</p> <p>23 LCP to take that work on our behalf.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. Okay. And in terms of least cost analysis for</p>
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<p>1 MR. MACISAAC:</p> <p>2 A. I think a number of different folks have</p> <p>3 touched this work and in my -- I'd be three</p> <p>4 degrees removed from it.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. Okay.</p> <p>7 MR. MACISAAC:</p> <p>8 A. So my ability to answer a detailed question</p> <p>9 inside of this is not going to be very helpful</p> <p>10 for you.</p> <p>11 (10:45 a.m.)</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. It might not be a detailed question.</p> <p>14 MR. MACISAAC:</p> <p>15 A. Okay.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. It might be -- really the question revolves</p> <p>18 around the fact that the Lower Churchill</p> <p>19 Management Corporation, I understand from the</p> <p>20 plan and from previous witnesses, would be</p> <p>21 doing the project management, engineering and</p> <p>22 construction management services for this</p> <p>23 project. Is that your understanding?</p> <p>24 MR. MACISAAC:</p> <p>25 A. That is my understanding.</p>	<p>1 bringing those individuals in, were you a part</p> <p>2 of anything looking at the least cost</p> <p>3 analysis?</p> <p>4 MR. MACISAAC:</p> <p>5 A. So in terms of least cost, I think you then</p> <p>6 have to backtrack and actually come up and</p> <p>7 look at the public tender process that LCP</p> <p>8 went through when they brought on board SNC</p> <p>9 because they went through, if you will, an RFP</p> <p>10 to get competitive offers for the provision of</p> <p>11 engineering services and that would be, I</p> <p>12 would say, the Litmus test for ensuring that</p> <p>13 you got value and the least cost option.</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. Okay. So this was obtained through a tender</p> <p>16 process? Is that what you're saying?</p> <p>17 MR. MACISAAC:</p> <p>18 A. If I said tender, then I misspoke.</p> <p>19 MR. O'BRIEN:</p> <p>20 Q. That's what I'm wondering.</p> <p>21 MR. MACISAAC:</p> <p>22 A. But I believe it was request for proposals.</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. Okay, all right. No, you did say RFP, you</p> <p>25 did.</p>

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1 MR. MACISAAC:  
 2 A. And there were competitive bids.  
 3 MR. O'BRIEN:  
 4 Q. There were, other than -- okay.  
 5 MR. MACISAAC:  
 6 A. There were multiple competitive bids and I had  
 7 only just joined the organization, but I  
 8 remember at that point in time they were  
 9 reviewing the competitive bids from a number  
 10 of different suitors.  
 11 MR. O'BRIEN:  
 12 Q. All right.  
 13 MR. MACISAAC:  
 14 A. And they landed on SNC inside of that  
 15 competitive review.  
 16 MR. O'BRIEN:  
 17 Q. But in terms of the actual project being done  
 18 by LCP, SNC -  
 19 MR. MACISAAC:  
 20 A. Well, they're the same resources.  
 21 MR. O'BRIEN:  
 22 Q. Same resources, right.  
 23 MR. MACISAAC:  
 24 A. And that was the connection that I was trying  
 25 to make for you. Probably didn't do a very

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1 good job in that space.  
 2 MR. O'BRIEN:  
 3 Q. So in terms of -  
 4 MR. MACISAAC:  
 5 A. It'd be some of the same resources.  
 6 MR. O'BRIEN:  
 7 Q. Are you aware of any contract being put in  
 8 place now in terms of a compensation model for  
 9 the Lower Churchill Project or is this just  
 10 shared services? And when you shake your  
 11 head, you say you're not aware of that?  
 12 MR. MACISAAC:  
 13 A. I'm not aware. I couldn't tell you.  
 14 MR. O'BRIEN:  
 15 Q. Okay. Let's get to the CT.  
 16 MR. MACISAAC:  
 17 A. Good.  
 18 MR. O'BRIEN:  
 19 Q. Your involvement with the CT, so Mr. Martin  
 20 had indicated in his testimony that Mr.  
 21 Henderson was responsible for making sure the  
 22 CT happened, but it was your role then to  
 23 procure it and to go about getting the bid  
 24 package together, construction and management.  
 25 Is that a fair summary?

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1 MR. MACISAAC:  
 2 A. It was our mandate to deliver to Mr. Henderson  
 3 an installed new gas turbine, commissioned and  
 4 ready for operation.  
 5 MR. O'BRIEN:  
 6 Q. And in terms of that mandate, when were you  
 7 given that particular mandate? Were you just  
 8 -  
 9 MR. MACISAAC:  
 10 A. On the date that we awarded the contract?  
 11 MR. O'BRIEN:  
 12 Q. No, no, around that time, in terms of the 100  
 13 megawatt, your involvement prior to this. I'm  
 14 just trying to get a flavour. Is it just that  
 15 you were involved all the way through the  
 16 process and then in January of 2014, you were  
 17 told to get the 100 megawatt? I'm trying to  
 18 get an idea as to when you were given specific  
 19 instructions to go get this CT.  
 20 MR. MACISAAC:  
 21 A. I think in the weeks leading up to the public  
 22 tender process and so -  
 23 MR. O'BRIEN:  
 24 Q. So the public tender process would have been  
 25 in April of 2014, would it, around the time of

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1 the application?  
 2 MR. MACISAAC:  
 3 A. Yeah, so we were out looking at different  
 4 options. I had mentioned this earlier. We  
 5 were out looking at different options and  
 6 developing different options. We came  
 7 together as a leadership team and I know that  
 8 Liberty reflected this in their report and we  
 9 agreed as a leadership team. So it wasn't  
 10 that there was one individual that made the  
 11 decision that inside of the first quarter, we  
 12 said this is a must. Let's go and get it  
 13 done. And it's in order to ensure generation  
 14 and reliability in support of customers.  
 15 MR. O'BRIEN:  
 16 Q. Okay. So let's have -  
 17 MR. MACISAAC:  
 18 A. And from the point that we decided that we  
 19 were going to do it as a leadership team, it  
 20 became my mandate to ensure that we delivered  
 21 it as close to year end as is safely possible.  
 22 MR. O'BRIEN:  
 23 Q. Okay. And I think that that's sort of my  
 24 question in terms of when you say "at the  
 25 point we decided to do it, it was my mandate

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<p>1 to move forward." When was the decision made</p> <p>2 to go get a CT?</p> <p>3 MR. MACISAAC:</p> <p>4 A. I'd have to go back and check diary notes and</p> <p>5 have a look and see when we made the decision,</p> <p>6 but it would be in the first quarter of the</p> <p>7 year, obviously before the April timeframe.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. Okay. Maybe that's what we'll do. I'll take</p> <p>10 you through the timeline there.</p> <p>11 MR. MACISAAC:</p> <p>12 A. Sure.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. You started in -- and maybe I'll take you</p> <p>15 forward. You started in 2010, the end of</p> <p>16 2010. I do want to reference a 2008</p> <p>17 generation planning report that was done, and</p> <p>18 I don't know whether or not you have any</p> <p>19 knowledge of it, but I'm going to reference</p> <p>20 some of the points of it and ask you whether</p> <p>21 you've been informed of it. And that's</p> <p>22 Information No. 28. We can put it up on the</p> <p>23 screen for now. It's a generation planning</p> <p>24 issues 2008 midyear update, and this report</p> <p>25 we've gone through with Mr. Humphries and</p>	<p>1 planning and the generation planning</p> <p>2 requirements moving forward and they'd have</p> <p>3 some of those same conversations here. When</p> <p>4 the PUB got to a place where they approved the</p> <p>5 capital plan, that's when project execution</p> <p>6 and technical service get involved.</p> <p>7 MR. O'BRIEN:</p> <p>8 Q. Okay.</p> <p>9 MR. MACISAAC:</p> <p>10 A. And we're directly involved in the year</p> <p>11 preceding building estimates, but the planning</p> <p>12 mandate and the forecasting of loads looking</p> <p>13 forward resides with Mr. Humphries in his</p> <p>14 shop.</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. When you first started, did Mr. Humphries</p> <p>17 report into you?</p> <p>18 MR. MACISAAC:</p> <p>19 A. He did.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Okay. So at the end of 2010, Mr. Humphries</p> <p>22 reported into you. Did he also report into</p> <p>23 Mr. Haynes at that time?</p> <p>24 MR. MACISAAC:</p> <p>25 A. I would say that there was a strong dashed</p>
<p>Page 102</p> <p>1 we've gone through with Mr. Moulton and it's a</p> <p>2 report completed by the systems planning group</p> <p>3 and it basically looks at two generation plan</p> <p>4 options, one where there's an isolated island,</p> <p>5 one where there's an HVDC link into Labrador,</p> <p>6 and sort of looks at what the planning options</p> <p>7 would be going forward. Have you seen that</p> <p>8 report before?</p> <p>9 MR. MACISAAC:</p> <p>10 A. I'm going to defer to Mr. Henderson. I know</p> <p>11 that -- I'm sorry, Mr. Humphries. I know that</p> <p>12 he's spoken to all the planning issues around</p> <p>13 the CT and I couldn't add additional comment</p> <p>14 on what he's already shared with yourselves.</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. I'm just interested sort of in when you first</p> <p>17 became aware, when you came on board with</p> <p>18 Nalcor and in your role as project execution</p> <p>19 VP, when you would have become aware of a need</p> <p>20 for generation or a need for -</p> <p>21 MR. MACISAAC:</p> <p>22 A. So the way that typically would happen is that</p> <p>23 Mr. Humphries would speak to Mr. Henderson or</p> <p>24 his predecessor, Mr. Haynes, and they would,</p> <p>25 on an ongoing basis, talk about system</p>	<p>Page 104</p> <p>1 line.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay. And what do you mean by that?</p> <p>4 MR. MACISAAC:</p> <p>5 A. So on system planning issues and on generation</p> <p>6 planning, longer term view, if Mr. Humphries</p> <p>7 was here, he would tell you that his line</p> <p>8 inside of those subjects and that dialogue</p> <p>9 would have been between himself and Jim</p> <p>10 Haynes. And I'm not walking away from the</p> <p>11 responsibility in that space. I'm just saying</p> <p>12 that's the reality of how the business worked.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. No, I understand that and I guess the purpose</p> <p>15 of my questions are going to be what your</p> <p>16 knowledge was and what your involvement was</p> <p>17 going forward.</p> <p>18 MR. MACISAAC:</p> <p>19 A. Sure, yeah.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. I understand Mr. Humphries has given his</p> <p>22 evidence on that. In 2008 then, this 2008</p> <p>23 report indicates -- it shows that -- and maybe</p> <p>24 if we can go to Table 5.1, page ten? And Mr.</p> <p>25 Humphries has testified to this and confirmed</p>

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<p>1 that this report shows that in 2013 -- look 2 over at the LOLH part of the table. He's 3 confirmed that the findings here indicate that 4 there would be a violation in the planning 5 criteria for 2013 under either the HVDC link 6 or isolated island link scenario, which would 7 mean that there's a forecast of a generation 8 deficit or capacity deficit at that point in 9 time. When you came on in 2010, were you 10 aware of that?</p> <p>11 MR. MACISAAC: 12 A. In 2010?</p> <p>13 MR. O'BRIEN: 14 Q. Yes.</p> <p>15 MR. MACISAAC: 16 A. No, sir.</p> <p>17 MR. O'BRIEN: 18 Q. Okay. Maybe we can -- and at this time as 19 well, one of the plans raised -</p> <p>20 MR. MACISAAC: 21 A. The way you asked the question was when I came 22 on in 2010.</p> <p>23 MR. O'BRIEN: 24 Q. Yeah, were you made aware of it? Maybe I'll 25 ask it that way.</p>	<p>1 that time, in terms of, I guess, who would 2 have provided him with oversight on systems 3 planning, would that -- that wouldn't have 4 been your role? If he reported into you, it 5 still wouldn't have been part of your role?</p> <p>6 MR. MACISAAC: 7 A. On paper, he definitely had a line to myself, 8 yes.</p> <p>9 MR. O'BRIEN: 10 Q. But oversight on that, that would have been -</p> <p>11 MR. MACISAAC: 12 A. Oversight on that would have been -</p> <p>13 MR. O'BRIEN: 14 Q. - Mr. Haynes?</p> <p>15 MR. MACISAAC: 16 A. - based on knowledge of the system and at that 17 time, I was coming over the curve and Mr. 18 Haynes knew and actually Mr. Haynes, in a 19 previous life, before he was the vice- 20 president of regulated Hydro, had done a stint 21 within system planning and I think at that 22 time, he probably knew the system as well as 23 anybody else in the organization.</p> <p>24 MR. O'BRIEN: 25 Q. Okay. I wonder if this might be a good time</p>
<p style="text-align: right;">Page 106</p> <p>1 MR. MACISAAC: 2 A. I'll answer the question. Again, and I'm 3 sorry if I'm repeating myself, these 4 discussions happened with the customer of 5 regulated Hydro at that time, would have been 6 between Mr. Humphries and Mr. Haynes, right. 7 Although when I came into the organization, 8 Paul had a line into myself, you have to 9 appreciate that I'm learning the business.</p> <p>10 MR. O'BRIEN: 11 Q. Sure.</p> <p>12 MR. MACISAAC: 13 A. And learning the business and the emphasis was 14 on project execution and asset management and 15 Paul and Mr. Haynes know the business at that 16 point in time and Paul's shop is specifically 17 about system planning and system operations.</p> <p>18 MR. O'BRIEN: 19 Q. Sure.</p> <p>20 MR. MACISAAC: 21 A. And it was common place and the practice that 22 on those subjects, Paul would have had those 23 discussions directly with his customer.</p> <p>24 MR. O'BRIEN: 25 Q. In terms of Mr. Humphries' oversight then at</p>	<p style="text-align: right;">Page 108</p> <p>1 for a break then, Mr. Chair.</p> <p>2 CHAIRMAN: 3 Q. Sure.</p> <p>4 (BREAK - 10:59 a.m.) 5 (RESUME - 11:36 a.m.)</p> <p>6 CHAIRMAN: 7 Q. Okay, sir, we're back to you.</p> <p>8 MR. O'BRIEN: 9 Q. Thank you, Mr. Chair. I believe when we left 10 off there, we were talking about that 2008 11 report, Mr. MacIsaac. I'm going to ask that 12 we pull up the 2010 -- there was one done in 13 2010, in July of 2010, just before -- a few 14 months before you would have come on board 15 with Nalcor and it's IC-NLH-074, Revision 1, 16 if we need to refer to it. Would you have 17 been aware of a mid-month sort of report from 18 -- sorry, midyear report on generation 19 planning issues or made aware of that when you 20 came on in October? Would Mr. Humphries have 21 made you aware of this particular report from 22 July of 2010? And we can scroll down just to 23 the first page of the report. There's an 24 attachment. Sorry, that's the wrong 25 attachment, sorry.</p>

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<p>1 MR. MACISAAC:</p> <p>2 A. Again, I apologize for having my back to you.</p> <p>3 MR. O'BRIEN:</p> <p>4 Q. Sorry, I've got the wrong -- okay, I wasn't</p> <p>5 intending really to refer to the report</p> <p>6 anyway. There was a July report dealing with</p> <p>7 the same issues that we saw in 2008. Would</p> <p>8 that have been brought to your attention when</p> <p>9 you came on board?</p> <p>10 MR. MACISAAC:</p> <p>11 A. A July report of 2010?</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. 2010, yeah.</p> <p>14 MR. MACISAAC:</p> <p>15 A. No, sir, it would not have. And I mean, I'm</p> <p>16 going back five years now.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. Yeah.</p> <p>19 MR. MACISAAC:</p> <p>20 A. And I'm going to say that -- and I'm sorry for</p> <p>21 reiterating the similar or same message -- a</p> <p>22 lot of the generation supply planning and the</p> <p>23 discussion of those issues, in the early</p> <p>24 stages, I would have had limited or no</p> <p>25 visibility to them because that would have</p>	<p>1 holistic. It's about cradle to grave and it's</p> <p>2 about asset renewal in its entirety. It's not</p> <p>3 about the maintenance component. It's about</p> <p>4 refurbishment, ongoing maintenance and</p> <p>5 replacement. So it goes across that spectrum</p> <p>6 and inside of project execution, we've already</p> <p>7 spent considerable time.</p> <p>8 My primary focus in the early days,</p> <p>9 within the first several years really, was</p> <p>10 predominantly on asset management and</p> <p>11 elevating our game in that space, and on</p> <p>12 project execution and doing the same, getting</p> <p>13 to a place where I understood where we were at</p> <p>14 and what our opportunities were and then</p> <p>15 making a plan for year over year continuous</p> <p>16 improvement.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. Okay. And when you came on in 2010, from the</p> <p>19 asset management perspective, I guess, were</p> <p>20 you made aware of any issues with the Holyrood</p> <p>21 plant, in terms of the availability of black</p> <p>22 start at the Holyrood plant? Was that part of</p> <p>23 any discussions with you?</p> <p>24 MR. MACISAAC:</p> <p>25 A. Early on, I would not have had visibility on</p>
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<p>1 been predominantly a dialogue between Paul</p> <p>2 Humphries, Mr. Humphries, excuse me, and Jim</p> <p>3 Haynes who was our VP of regulated Hydro at</p> <p>4 the time.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. Okay. So I won't take you through the report.</p> <p>7 What I'll ask you, I guess, in terms of when</p> <p>8 you came on board in 2010, were you given any</p> <p>9 visibility in terms of generation issues from</p> <p>10 a systems planning perspective?</p> <p>11 MR. MACISAAC:</p> <p>12 A. So let me talk about what the focus was when I</p> <p>13 first came on board.</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. Sure, that might help.</p> <p>16 MR. MACISAAC:</p> <p>17 A. I think it'll help a lot.</p> <p>18 MR. O'BRIEN:</p> <p>19 Q. Yeah, okay. So inside of early days, and this</p> <p>20 is before there was any mention of CF(L)Co, it</p> <p>21 was about asset management and -- I think our</p> <p>22 two organizations probably view asset</p> <p>23 management in some similar lights and then in</p> <p>24 different in other ways. I think when we talk</p> <p>25 about asset management at Hydro, it's</p>	<p>1 that issue, no.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay, all right. So you wouldn't have known</p> <p>4 that in 2010 there had been a stop work order</p> <p>5 on the 13 megawatt unit at -- gas turbine at</p> <p>6 Holyrood?</p> <p>7 MR. MACISAAC:</p> <p>8 A. I probably found out inside of the first 18 to</p> <p>9 24 months inside in an exchange with Terry</p> <p>10 LeDrew where he would have said to me, you</p> <p>11 know, the black start is non-operable. And if</p> <p>12 you ask me when it was, I couldn't tell you,</p> <p>13 but I do know that he told me inside of the</p> <p>14 first two years that I was here because I</p> <p>15 asked him what the building was and he said</p> <p>16 "that's our black start gas turbine" and I</p> <p>17 think at that point in time, so probably two</p> <p>18 years in, we had done a bunch of work around</p> <p>19 in terms of a condition assessment by an</p> <p>20 external consultant. I remember Terry sharing</p> <p>21 this with me and we had done a bunch of work</p> <p>22 in terms of a condition assessment with an</p> <p>23 external consultant and that we were in a</p> <p>24 place where we were reevaluating what we were</p> <p>25 going to do with the black start for the</p>

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<p>1 plant.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay. And -</p> <p>4 MR. MACISAAC:</p> <p>5 A. So that was probably late 2011 type of thing.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. Okay, all right. And in terms of early on, I</p> <p>8 guess, in your first year in that role, would</p> <p>9 you have had any discussions with anyone about</p> <p>10 a CT or a need for a CT for future generation?</p> <p>11 Would that have been part of any of your</p> <p>12 discussions?</p> <p>13 MR. MACISAAC:</p> <p>14 A. No, I would have been brought into a</p> <p>15 discussion on the CT probably early 2012 when</p> <p>16 we started building different scenarios for --</p> <p>17 the plan at that point in time, I believe, was</p> <p>18 for 2015 and I would have had a conversation</p> <p>19 with Paul where he would have asked me about</p> <p>20 building proposals and a project plan and a</p> <p>21 scope and an estimate for an in service of</p> <p>22 2015.</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. Okay. In terms of that timeline then, 2015,</p> <p>25 would you have been asked for -- would you</p>	<p>1 A. And at that time, we looked at -- and I'm</p> <p>2 going by memory, so I can remember two, but I</p> <p>3 think there was more than two locations. I</p> <p>4 think there was three considered, but the two</p> <p>5 that I remember in my mind were a location in</p> <p>6 White Hills and another one which was</p> <p>7 Holyrood.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. Okay. And you were part of those discussions,</p> <p>10 were you?</p> <p>11 MR. MACISAAC:</p> <p>12 A. I joined them off and on.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. Okay. And what was your -- in what capacity?</p> <p>15 What was your sort of focus in terms of those</p> <p>16 discussions?</p> <p>17 MR. MACISAAC:</p> <p>18 A. Was to ensure that we were getting the right</p> <p>19 work done around risk assessment.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. And was your -</p> <p>22 MR. MACISAAC:</p> <p>23 A. And that the process was deliberate and that</p> <p>24 we asked ourselves all the right questions.</p> <p>25 MR. O'BRIEN:</p>
<p>Page 114</p> <p>1 have given details to say "we'd like to have</p> <p>2 it in in 2015. Can you give me a scope for</p> <p>3 that?" Is that how that would have worked?</p> <p>4 MR. MACISAAC:</p> <p>5 A. I think in the early days we talked in</p> <p>6 generalities, where we talked about going out</p> <p>7 and getting pricing and putting together a</p> <p>8 schedule. So, we did some siting work back in</p> <p>9 2012. We did a high level budgetary estimate</p> <p>10 and we had proposals from vendors at the time</p> <p>11 and we also built a project plan back then as</p> <p>12 well.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. Okay. Well take me through that, that siting.</p> <p>15 We've heard some testimony about a siting</p> <p>16 assessment sort of done in early 2012, maybe</p> <p>17 around March. Would you have been part of</p> <p>18 that?</p> <p>19 MR. MACISAAC:</p> <p>20 A. We brought in an external facilitator to do a</p> <p>21 formal risk review on the project and part of</p> <p>22 the formal risk review was a siting exercise.</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. And that was -</p> <p>25 MR. MACISAAC:</p>	<p>Page 116</p> <p>1 Q. And would you have been part of the analysis</p> <p>2 as to timeline, when we need it, when we need</p> <p>3 the capacity, that kind of thing, or were you</p> <p>4 more focused on how we're going to get the job</p> <p>5 done?</p> <p>6 MR. MACISAAC:</p> <p>7 A. I was more focused on the risks for getting</p> <p>8 the job done.</p> <p>9 MR. O'BRIEN:</p> <p>10 Q. Okay. Do you recall any discussion around</p> <p>11 that time about the need for on-site black</p> <p>12 start for Holyrood?</p> <p>13 (11:45 a.m.)</p> <p>14 MR. MACISAAC:</p> <p>15 A. I remember a discussion where we looked at or</p> <p>16 considered using Hardwoods as our interim</p> <p>17 solution for black start. That much I recall.</p> <p>18 MR. O'BRIEN:</p> <p>19 Q. Okay. And would you have been part of the</p> <p>20 decision making process for that or are you</p> <p>21 just aware of what the plan was?</p> <p>22 MR. MACISAAC:</p> <p>23 A. I'm just aware. I'm just aware, and the</p> <p>24 reason I would say that is technically, at</p> <p>25 that time, I was still learning our system and</p>

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<p>1 I'm a mechanic, mechanical engineer, excuse 2 me, and not an electrical engineer, and I 3 deferred to those in the room that had more 4 expertise and knowledge of our system than 5 myself. 6 MR. O'BRIEN: 7 Q. You mentioned in terms of 2012, there being a 8 high level budgetary analysis of the CT and 9 you looked for some proposals, that kind of 10 thing. Just take me through sort of what 11 happened in that year? How did that work? 12 MR. MACISAAC: 13 A. So we would have gone to market and gotten 14 proposals. At the time we were talking back 15 and forth between a unit that was 50 megawatts 16 or 60 megawatts at the time with a larger 17 generator on it because we were looking at 18 considering adding synchronous condense 19 capacity as part of the build, and we went to 20 market and talked to a couple of vendors and 21 received front end preliminary budgetary 22 proposals. 23 MR. O'BRIEN: 24 Q. Was there a plan at that time that you recall 25 in terms of when to proceed with procurement</p>	<p>1 A. I think your ask of me is could we have 2 submitted, if we made the decision to go ahead 3 and put it into the capital system and 4 submission, were we ready? 5 MR. O'BRIEN: 6 Q. No, that's not my question. I'm wondering if 7 you recall any discussion about submitting 8 this in the end of 2012, which would have led 9 to sort of your getting proposals, that kind 10 of thing? Do you have any recollection of 11 that? 12 MR. MACISAAC: 13 A. So at that time, it would have been a 14 discussion where the VP of operations would 15 have said we're going forward or we're not 16 going forward, bring it into the plan or don't 17 bring it into the plan, and those discussions 18 would have been again, between Mr. Humphries 19 and Mr. Haynes. 20 MR. O'BRIEN: 21 Q. Okay. All right. So you wouldn't, at that 22 point, have been part of any of those 23 discussions? 24 MR. MACISAAC: 25 A. I would have been involved in the capital plan</p>
<p>Page 118</p> <p>1 of a CT? 2 MR. MACISAAC: 3 A. I'm going to defer to my colleague and the 4 answer he may have already provided in that 5 space, because again, my mandate was on the 6 execution side and building the scope and the 7 estimate and the budget and the timing of the 8 decision point around generation and adding 9 incremental generation was between Mr. 10 Humphries' shop and his customer, Mr. Haynes. 11 MR. O'BRIEN: 12 Q. And to be fair, I guess I'm really focused on 13 -- I want to try to focus on your role. From 14 a capital budget perspective, would you -- if 15 you're in the process of looking for proposals 16 and that kind of thing, was there a focus of 17 trying to get this done for year end for 18 capital budget in the following year? Do you 19 recall any sort of discussions from that 20 perspective? 21 MR. MACISAAC: 22 A. So I'm going to clarify your question. 23 MR. O'BRIEN: 24 Q. Yeah, sure. 25 MR. MACISAAC:</p>	<p>Page 120</p> <p>1 preparation and would have been, you know, are 2 we bringing that in or not, and we were ready 3 to bring it in if the decision to bring it in 4 was then made. 5 MR. O'BRIEN: 6 Q. Okay. So in 2012 then, I guess, just building 7 on that question, in terms of you being ready 8 to bring it in if you had to bring it in, you 9 had proposals and you've looked at it from a 10 high level. You weren't part of the 11 application process for the CT, for any CT in 12 2012, I take it? 13 MR. MACISAAC: 14 A. I honestly don't recall. 15 MR. O'BRIEN: 16 Q. Okay. And let me ask you just in terms of the 17 synchronous condenser you talked about. 18 That's one of the things you were looking at. 19 Can you give me a bit of information as to why 20 you would be looking for that, some details as 21 to why you'd be looking for that as part of a 22 CT? 23 MR. MACISAAC: 24 A. So the brain trust in that space comes from 25 Paul's shop again and it would have been guys</p>

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<p>1 like Pete Thomas talking about voltage support 2 on the grid and that would have been the 3 purpose for additional synchronous condenser 4 capacity. Beyond that, I wouldn't offer 5 comment. 6 MR. O'BRIEN: 7 Q. You'd be stepping outside your bounds. 8 MR. MACISAAC: 9 A. Well, I would. I'd be out of my league. 10 MR. O'BRIEN: 11 Q. Okay. So at that point in time, your role was 12 more to take the criteria given and go search 13 for it? 14 MR. MACISAAC: 15 A. That's the way we work. 16 MR. O'BRIEN: 17 Q. Okay. 18 MR. MACISAAC: 19 A. And that's the way we work today and that's 20 the way we've worked since I got here, was 21 that in terms of definition of functional 22 requirements and specifications, our technical 23 leads would work closely with Paul's shop to 24 find what we need in terms of requirements and 25 then go to the street and see what's out</p>	<p>1 in as an additional line item and it's a 2 simple matter of installing an extra 3 mechanical component called a clutch, like the 4 clutch in your car, to engage or disengage on 5 the generator end. 6 MR. O'BRIEN: 7 Q. And that hundred - 8 MR. MACISAAC: 9 A. So that was going to the market, looking for 10 50 or 60 megawatts because we did look at both 11 and we got proposals on both with a triple S 12 clutch and potentially a larger generator so 13 that it would add the synchronous condense 14 capacity. 15 MR. O'BRIEN: 16 Q. And the 100 megawatt generator, 123 megawatt 17 generator that was purchased, does that have 18 that synchronous condenser capacity? 19 MR. MACISAAC: 20 A. Well, it provides some voltage support when 21 it's on, but it doesn't have a larger 22 generator than the unit normal design and it 23 doesn't have a triple S clutch, no. It 24 doesn't have the ability to disengage. 25 MR. O'BRIEN:</p>
<p>1 there. 2 MR. O'BRIEN: 3 Q. Do you have any recollection say in 2012 when 4 you went out to start looking for what was out 5 there, where there's -- apart from the 6 capacity and the synchronous condenser, were 7 there any other criteria you were given, or 8 were you just "go out and look for it"? I 9 mean, were you asked to look for new versus 10 used versus existing? What was the thought 11 process? 12 MR. MACISAAC: 13 A. No, I'm going to backtrack and say that at the 14 time we were going to market and we were 15 looking for new and we were looking for new 16 with the ability to grow it. So our approach 17 to the market was potentially a unit that 18 could be double-ended and grown in future 19 capacity if required with the ability to -- 20 for it to have the flexible connection, the 21 opportunity or a line item, whatever you 22 describe it, in terms of the response where 23 you can say I'm going to or I'm not going to 24 add a larger generator for that incremental 25 synchronous condense capacity. So you put it</p>	<p>1 Q. And I'll ask the question but you may defer 2 it, in terms of the voltage support, the March 3 4th 2015 outages or outage, I guess, would the 4 voltage support from a synchronous condenser 5 have assisted at that time? 6 MR. MACISAAC: 7 A. I don't know the technical detail in terms of 8 how it's been explained. I would suggest that 9 based on my understanding, having the unit on 10 would have brought additional support to the 11 system. 12 MR. O'BRIEN: 13 Q. And would the synchronous condenser have 14 assisted in that regard? 15 MR. MACISAAC: 16 A. Having the existing unit would have brought 17 additional support to the system. 18 MR. O'BRIEN: 19 Q. Going back to 2012, I take it in your search 20 one of the criteria was also to have a unit 21 that could black start at Holyrood. Is that 22 fair? 23 MR. MACISAAC: 24 A. I'd have to go back and read the specification 25 that we took to the street and I don't</p>

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1 remember that particular aspect of how we went  
2 to market.  
3 MR. O'BRIEN:  
4 Q. Okay.  
5 MR. MACISAAC:  
6 A. So I'd have to ask for an opportunity to  
7 double check.  
8 MR. O'BRIEN:  
9 Q. All right. And I'll give you that  
10 opportunity.  
11 MR. MACISAAC:  
12 A. Sure.  
13 MR. O'BRIEN:  
14 Q. I'm going to ask you to double check. And  
15 based on Mr. LeDrew's testimony, I understood  
16 that in 2012 he had -- that the fact that the  
17 black start was not going to be available,  
18 that that 13 megawatt GT wasn't going to be  
19 available going forward, sort of kick-started  
20 some of the discussions then on the CT. So  
21 I'll ask for an undertaking that you look to  
22 see if that was one of the criteria that you  
23 looked for.  
24 MR. MACISAAC:  
25 A. Yeah, not a problem.

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1 MS. GLYNN:  
2 Q. Noted on the record.  
3 MR. O'BRIEN:  
4 Q. And I believe you indicated you received some  
5 responses then in terms of your request for --  
6 was there a formal RFP sent out in 2012 or did  
7 you just make inquiries, I guess, informal  
8 inquiries of suppliers? What's your  
9 recollection?  
10 MR. MACISAAC:  
11 A. I think we made inquiries of suppliers.  
12 MR. O'BRIEN:  
13 Q. Okay. And you received some responses?  
14 MR. MACISAAC:  
15 A. Yes, we did.  
16 MR. O'BRIEN:  
17 Q. Okay. Later in the year, I understand from  
18 some of the -- one of the RFIs anyway, Q3, Q4  
19 timeframe. Does that sound about right?  
20 MR. MACISAAC:  
21 A. If I were going off memory, I would have said  
22 Q2, Q3, but it could have been Q3, Q4.  
23 MR. O'BRIEN:  
24 Q. Okay, all right. But it was in 2012?  
25 MR. MACISAAC:

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1 A. It was, sir, yeah.  
2 MR. O'BRIEN:  
3 Q. And did you review those responses yourself?  
4 MR. MACISAAC:  
5 A. No, I would not have reviewed the responses  
6 myself. That would have been within our shop  
7 and it would have been with Howard Richards,  
8 who was one of our project managers at the  
9 time.  
10 MR. O'BRIEN:  
11 Q. Okay. And I understood from your earlier  
12 testimony when you were speaking with Ms.  
13 Greene, you had indicated that by January of  
14 2013, your group had come to the decision and  
15 maybe Hydro as a whole had come to a decision  
16 that they needed to be more decisive with this  
17 CT proceeding forward.  
18 MR. MACISAAC:  
19 A. No, I think what I said was in 2014, we came  
20 together and said we need to do it now, and in  
21 2013, we did more work in preparedness.  
22 MR. O'BRIEN:  
23 Q. My understanding was that 2013 was your  
24 testimony, but it was 2014 when you were -  
25 MR. MACISAAC:

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1 A. The decision to go and secure the unit from  
2 the marketplace was made in 2014, the  
3 beginning of the year, right, and the outage  
4 that we had in January of 2013 got us to a  
5 place where we were out in the market looking.  
6 MR. O'BRIEN:  
7 Q. Okay. And what is your recollection? Did you  
8 have any involvement with the 2013 process of  
9 looking in the market? Was that still in Mr.  
10 Humphries sort of side of things or were you  
11 directly involved?  
12 MR. MACISAAC:  
13 A. No, Paul's shop doesn't look in the market.  
14 MR. O'BRIEN:  
15 Q. Okay. You do that?  
16 MR. MACISAAC:  
17 A. Right.  
18 MR. O'BRIEN:  
19 Q. Okay. Take me through 2013. What did you do  
20 in 2013 then in terms of searching the market?  
21 MR. MACISAAC:  
22 A. We cast a broader net and became more  
23 deliberate.  
24 MR. O'BRIEN:  
25 Q. And why is that?

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<p>1 MR. MACISAAC:</p> <p>2 A. In anticipation of us being at a place where</p> <p>3 we were going to be called upon. So being</p> <p>4 proactive in the event that the decision was</p> <p>5 made that we were going to add incremental</p> <p>6 generation?</p> <p>7 MR. O'BRIEN:</p> <p>8 Q. And by this point in time, did you understand</p> <p>9 that there was a need for incremental</p> <p>10 generation coming soon? What's your</p> <p>11 understanding?</p> <p>12 MR. MACISAAC:</p> <p>13 A. What I can tell you is that based on the</p> <p>14 discussion that was occurring within the</p> <p>15 building was that the need for incremental</p> <p>16 generation between where we were and in feed</p> <p>17 was on the immediate horizon and in the</p> <p>18 interest of being proactive, we were out in</p> <p>19 the market developing options, looking at what</p> <p>20 was out there and also getting ourselves</p> <p>21 organized. So we had done some siting work.</p> <p>22 We understood from that siting work that our</p> <p>23 EA options were different. We looked at</p> <p>24 different vendors for different options. We</p> <p>25 went beyond the original equipment purpose</p>	<p>1 MR. O'BRIEN:</p> <p>2 Q. Okay. And this particular report is similar</p> <p>3 to the previous reports in 2008 and 2010, but</p> <p>4 in this particular report, there's an</p> <p>5 indication that no matter which scenario is</p> <p>6 used, either an isolated island or an</p> <p>7 interconnected island, there was a need for</p> <p>8 capacity in 2015. There was a violation of</p> <p>9 the planning criteria for 2015.</p> <p>10 MR. MACISAAC:</p> <p>11 A. Um-hm.</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. You don't take issue with that, I take it?</p> <p>14 MR. MACISAAC:</p> <p>15 A. I take issue with you saying that I don't take</p> <p>16 issue with it. So, I wouldn't agree that I</p> <p>17 don't take issue with it, and I think that</p> <p>18 it's -- so this is different saying that I</p> <p>19 don't take issue with it. So, I don't know</p> <p>20 how that ends up on the record, but I want to</p> <p>21 be clear.</p> <p>22 MR. O'BRIEN:</p> <p>23 Q. Yeah, sure.</p> <p>24 MR. MACISAAC:</p> <p>25 A. That we take our mandate very seriously.</p>
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<p>1 built option and started to look broader at</p> <p>2 after market options as well.</p> <p>3 MR. O'BRIEN:</p> <p>4 Q. Okay.</p> <p>5 MR. MACISAAC:</p> <p>6 A. So we were doing front end pre-work in</p> <p>7 anticipation of a decision point about</p> <p>8 building more incremental generation between</p> <p>9 where we were in that timeframe and in feed</p> <p>10 from Muskrat Falls.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. I'm going to ask you, while we have it on the</p> <p>13 screen here, this is IC-NLH-074, if we could</p> <p>14 scroll up to the first page. This is the --</p> <p>15 sorry, just the first page of the report.</p> <p>16 Scroll down a bit, please, Ms. Gray. Thank</p> <p>17 you. The generation planning issues, November</p> <p>18 2012, report, would that have been brought to</p> <p>19 your attention?</p> <p>20 MR. MACISAAC:</p> <p>21 A. I could have been copied on it.</p> <p>22 MR. O'BRIEN:</p> <p>23 Q. Okay. Do you recall reviewing the report?</p> <p>24 MR. MACISAAC:</p> <p>25 A. No.</p>	<p>1 MR. O'BRIEN:</p> <p>2 Q. Oh no, I didn't mean it that way.</p> <p>3 MR. MACISAAC:</p> <p>4 A. Okay.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. I meant you agree that the report says that.</p> <p>7 I didn't mean -- okay.</p> <p>8 MR. MACISAAC:</p> <p>9 A. Okay.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. So in November of 2012, then by this point in</p> <p>12 time, Hydro would have been aware that there</p> <p>13 is a capacity issue under both scenarios going</p> <p>14 forward.</p> <p>15 MR. MACISAAC:</p> <p>16 A. Okay, yeah.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. And that there was a need to address it with</p> <p>19 additional -</p> <p>20 MR. MACISAAC:</p> <p>21 A. We saw that in the 2008 report that you showed</p> <p>22 me as well.</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. Well, to be fair to you, the 2008 report</p> <p>25 showed a capacity issue that needed to be</p>

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1 dealt with potentially differently in the  
2 isolated island scenario.  
3 (12:00 p.m.)  
4 MR. MACISAAC:  
5 A. Okay.  
6 MR. O'BRIEN:  
7 Q. But by this report, Hydro is talking about a  
8 new CT under either scenario.  
9 MR. MACISAAC:  
10 A. Yes.  
11 MR. O'BRIEN:  
12 Q. Coming in and needing to be in by the end of  
13 2014 for 2015. Is that fair?  
14 MR. MACISAAC:  
15 A. Okay.  
16 MR. O'BRIEN:  
17 Q. Okay. So in that context, I guess, when you  
18 talk about going forward and your role going  
19 forward in 2013 forward and being proactive,  
20 how proactive were you in the timing sense?  
21 You had two years now at that point to get in  
22 a CT by the end of 2014. Do you recall how  
23 urgent the situation was for you in January  
24 2013 going forward? Do you recall anything  
25 about that?

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1 MR. MACISAAC:  
2 A. So that's a fair question, and I hear you on  
3 your message, and I believe that this has been  
4 dealt with inside of the Liberty review as  
5 well and I'm sure that Mr. Humphries would  
6 have already spoken to it. I'm not going to  
7 be able to add anything that's different than  
8 what Mr. Humphries has said, in terms of the  
9 discussion and the decision point around  
10 adding incremental generation, but that is  
11 driven and led in his shop and I know as a  
12 leadership team, we all own that. It's not  
13 just Paul. We all own it. We got to a place  
14 where in early 2014, the leadership team said  
15 let's make it happen and coming back to your  
16 comment about the end of 2014 and early 2015  
17 for that winter, we then went and built a  
18 project and it was in service in January,  
19 synchronized to the grid and we were in a  
20 place where we're supporting customer load  
21 after January 21st.  
22 MR. O'BRIEN:  
23 Q. Okay.  
24 MR. MACISAAC:  
25 A. So it may not be clean, in terms of how we got

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1 to the place where the gas turbine was  
2 installed and Liberty's report -- and we  
3 accept many of the recommendations that are in  
4 there -- say that the planning wasn't optimal,  
5 but I can't add a whole lot more value than  
6 what Paul's already given you inside of his  
7 testimony.  
8 MR. O'BRIEN:  
9 Q. I respect that, and I guess in terms of my  
10 approach in terms of my questioning with you,  
11 I'm just wondering whether or not you recall  
12 anyone expressing a sense of urgency in  
13 January of 2013 to get this moving.  
14 MR. MACISAAC:  
15 A. Again, I'm not going to say that we didn't  
16 have -- we did or we didn't have a discussion  
17 around what was important at the time.  
18 MR. O'BRIEN:  
19 Q. Okay.  
20 MR. MACISAAC:  
21 A. And in terms of -- I have to defer it to Paul.  
22 You can ask me the question in terms of  
23 urgency. We were doing the necessary pre-work  
24 leading up to a decision point and the  
25 decision point comes between system planning

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1 and the customer, being the leadership of  
2 regulated operations.  
3 MR. O'BRIEN:  
4 Q. Okay. So you've had some discussions then  
5 with Ms. Greene in terms of your involvement  
6 with the application process then come January  
7 forward, and I want to get just a little bit  
8 more information on that.  
9 MR. MACISAAC:  
10 A. Okay.  
11 MR. O'BRIEN:  
12 Q. There's -- from the RFIs, I understand that  
13 there was a move then in January to start  
14 looking for a 100 megawatt CT. There doesn't  
15 appear to have been a move prior to January.  
16 What's your recollection as to why the focus  
17 was on a 100 megawatt CT in January versus  
18 earlier in 2013 say? Were you just given  
19 instruction to go look for a 100 megawatt CT?  
20 MR. MACISAAC:  
21 A. We came together as a leadership team and  
22 talked about what our needs were and how we  
23 would be best served in terms of going forward  
24 a new build and was 60 megawatts or 50  
25 megawatts still the right size for what we saw

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1 as our needs moving forward and the decision  
 2 was taken at that time that we would go to  
 3 market for a larger unit.  
 4 MR. O'BRIEN:  
 5 Q. Okay. And do you recall what that was based  
 6 on when you first made that decision? Mr.  
 7 Humphries had indicated it was sort of based  
 8 on some recommendations from Liberty and a  
 9 Ventyx report, I think, that looked at  
 10 generation planning issues. The way I saw it,  
 11 there was the -- that report, the generation  
 12 planning report of Ventyx was in March. I  
 13 didn't know whether or not there was an  
 14 approach earlier on to look at a 100 megawatt  
 15 CT. Do you have any recollections on that?  
 16 MR. MACISAAC:  
 17 A. I don't.  
 18 MR. O'BRIEN:  
 19 Q. Okay. And again, based on sort of your  
 20 testimony, you would have -- that capacity  
 21 issue and the need for that capacity would  
 22 have really been driven by, as you call them,  
 23 the client, I guess Hydro, as opposed to you,  
 24 would it, the size that would have been  
 25 necessary?

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1 MR. MACISAAC:  
 2 A. We're a service group, not to diminish what  
 3 project execution and technical services did.  
 4 Like finance is a service group to operations  
 5 as well.  
 6 MR. O'BRIEN:  
 7 Q. Okay.  
 8 MR. MACISAAC:  
 9 A. We're a support group. The analysis of the  
 10 needs of the load and generation moving  
 11 forward comes from Paul's shop.  
 12 MR. O'BRIEN:  
 13 Q. Okay. And there was an understanding at that  
 14 point, I think that's clear from your  
 15 testimony, that the need was to have a CT in  
 16 for the end of the year, for December 2014?  
 17 MR. MACISAAC:  
 18 A. That was the desire, to do it expeditiously.  
 19 MR. O'BRIEN:  
 20 Q. And is that the reason why you looked at the  
 21 grey market? We'll call it the grey market.  
 22 That's what we've been calling it here. It  
 23 may not be what you call it.  
 24 MR. MACISAAC:  
 25 A. I'd call it after market.

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1 MR. O'BRIEN:  
 2 Q. After market, okay.  
 3 MR. MACISAAC:  
 4 A. Is what I'd call it.  
 5 MR. O'BRIEN:  
 6 Q. So is that the first time you started looking  
 7 at after market purchases?  
 8 MR. MACISAAC:  
 9 A. No, sir, it's not.  
 10 MR. O'BRIEN:  
 11 Q. No?  
 12 MR. MACISAAC:  
 13 A. No.  
 14 MR. O'BRIEN:  
 15 Q. Okay. It would have been part of your January  
 16 -- of your 2013 review as well?  
 17 MR. MACISAAC:  
 18 A. We would have looked at all market options  
 19 back in 2012 and 2013.  
 20 MR. O'BRIEN:  
 21 Q. Okay.  
 22 MR. MACISAAC:  
 23 A. And you know, I'm the type of guy that would  
 24 buy a demonstrator off the lot. So if I were  
 25 going shopping for a car today, I'd be looking

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1 for a demo 2015 as opposed to, you know,  
 2 buying the new 2016s. I'd consider it as an  
 3 option. So when we went to market, what we  
 4 were looking for was the right functional fit  
 5 for our needs and the best value for money for  
 6 rate payers and customers.  
 7 MR. O'BRIEN:  
 8 Q. Okay. And when you say that, the best value  
 9 for money for rate payers and customers, would  
 10 you have been part of looking at whether or  
 11 not the purchase was the least cost, reliable  
 12 option, that sort of thing? Would that be  
 13 part of your role or is that the Hydro role?  
 14 MR. MACISAAC:  
 15 A. I definitely would have been brought into the  
 16 review.  
 17 MR. O'BRIEN:  
 18 Q. Okay. And do you recall -- Mr. Martin sort of  
 19 indicated that using the market was the  
 20 evaluator of what's least cost.  
 21 MR. MACISAAC:  
 22 A. Was the test.  
 23 MR. O'BRIEN:  
 24 Q. That's the test. And you'd agree with that?  
 25 MR. MACISAAC:

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1 A. I would.  
 2 MR. O'BRIEN:  
 3 Q. Okay. And in terms of your criteria, what you  
 4 were looking for in a CT at that point, apart  
 5 from capacity, were you looking at synchronous  
 6 condenser at that time as part of your  
 7 criteria?  
 8 MR. MACISAAC:  
 9 A. I'd have to double check for you, but I think  
 10 it was listed as being one of the options that  
 11 we considered. Our focus at that time  
 12 obviously was for generation support.  
 13 MR. O'BRIEN:  
 14 Q. Okay.  
 15 MR. MACISAAC:  
 16 A. So if it was on the list inside of the  
 17 functional specification, it was a secondary  
 18 priority, not the primary priority, if it was  
 19 there, and I'd have to check to be sure.  
 20 MR. O'BRIEN:  
 21 Q. And perhaps -  
 22 MR. MACISAAC:  
 23 A. I can check the technical specification sheet  
 24 for you, if you like.  
 25 MR. O'BRIEN:

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1 Q. Well, I can actually refer you to -- yeah, if  
 2 you can check the technicals, if you like,  
 3 sure, if you're able to do that.  
 4 MR. MACISAAC:  
 5 A. It's not jumping off the page at me. It  
 6 doesn't mean that it wasn't in the detailed  
 7 specification.  
 8 MR. O'BRIEN:  
 9 Q. And I only looked at the scope of contract. I  
 10 didn't see it jump out on that.  
 11 MR. MACISAAC:  
 12 A. No.  
 13 MR. O'BRIEN:  
 14 Q. Okay. And do you recall any discussions about  
 15 that as a desirable option?  
 16 MR. MACISAAC:  
 17 A. I'm sure there was discussion around that  
 18 being considered, and I know at the time that  
 19 the focus was generation.  
 20 MR. O'BRIEN:  
 21 Q. And are you able to -- and based on your  
 22 earlier testimony, I know I can't describe it,  
 23 but are you able to tell us what a synchronous  
 24 condenser does?  
 25 MR. MACISAAC:

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1 A. It gives you active voltage support, VARs, as  
 2 the guys in Paul's shop, it's reactive power.  
 3 So it balances out.  
 4 MR. O'BRIEN:  
 5 Q. Okay. And there is a mention in the  
 6 application itself that indicates that while  
 7 this would have been a desirable feature, it's  
 8 provision would mean delays? Do you recall  
 9 that?  
 10 MR. MACISAAC:  
 11 A. That's correct.  
 12 MR. O'BRIEN:  
 13 Q. Yeah, okay. In the initial in-service date,  
 14 and that this capability wouldn't required  
 15 until 2017. Do you recall that?  
 16 MR. MACISAAC:  
 17 A. I do.  
 18 MR. O'BRIEN:  
 19 Q. And why is that?  
 20 MR. MACISAAC:  
 21 A. That inside of the scope that was -- inside of  
 22 system planning, they look at the system in  
 23 terms of balancing what our needs are for  
 24 reactive power and they had said that up to  
 25 2017, we would be in a place that -- and

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1 there's an additional component that comes  
 2 with the Muskrat Falls project is that there  
 3 is additional synchronous condenser capacity  
 4 being added to the grid.  
 5 MR. O'BRIEN:  
 6 Q. Okay.  
 7 MR. MACISAAC:  
 8 A. So they would have done an analysis to  
 9 determine that we were okay as far as VARs or  
 10 reactive power goes.  
 11 MR. O'BRIEN:  
 12 Q. Okay. And I get the understanding, and maybe  
 13 you can correct me if I'm wrong, that you were  
 14 on a tight timeline at this point in time when  
 15 you're putting out tenders and trying to get  
 16 moving on this project. Is that fair?  
 17 MR. MACISAAC:  
 18 A. I think it's fair to characterize it that in  
 19 terms of priority "A" versus priority "B",  
 20 that priority "A" was additional generation.  
 21 MR. O'BRIEN:  
 22 Q. Okay, and how about timeline of having that in  
 23 place?  
 24 MR. MACISAAC:  
 25 A. Pardon me?

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<p>1 MR. O'BRIEN: 2 Q. How about the timeline of having that in 3 place, was that a major priority for you as 4 well? 5 MR. MACISAAC: 6 A. Yes, of course. 7 MR. O'BRIEN: 8 Q. And in terms of synchronous condenser, would 9 you consider that not having that is a 10 compromise that you took in order to get 11 moving and get this CT in place? 12 MR. MACISAAC: 13 A. It was an informed decision. We had talked 14 about different synchronous condense options, 15 and to the point that we talked about 16 potentially the acquisition after the CT of 17 even another generator with a starting motor 18 or a pony motor to start the generator to 19 provide the additional synchronous condensing 20 capacity if it was deemed as being required. 21 MR. O'BRIEN: 22 Q. Okay. 23 MR. MACISAAC: 24 A. So it was definitely talked about and it was a 25 "B" priority, and it was considered something</p>	<p>1 Q. If you weren't under time constraints? 2 MR. MACISAAC: 3 A. The budgetary work-up that we had done on the 4 60 megawatt unit with a sync condense or a 5 larger generator was, in fact, 120 million 6 dollars. So what you would have ended up with 7 was a compromise on the additional generation 8 that you picked up with more synchronous 9 condensing capacity if you were to build that 10 solution. 11 MR. O'BRIEN: 12 Q. And that was a new 60 - 13 MR. MACISAAC: 14 A. What I can also tell you is out of the 15 responses that we got from the marketplace, 16 and we had four very good offers, the offer 17 from ProEnergy was the low cost option, but in 18 addition to that, the next closest one in 19 price offered 25 percent less capacity. 20 MR. O'BRIEN: 21 Q. Okay. 22 MR. MACISAAC: 23 A. Right, so customers did get good value for 24 money. 25 MR. O'BRIEN:</p>
<p>Page 146</p> <p>1 that we could probably come up with, a cost 2 effective solution that was outside the build 3 of the CT. 4 MR. O'BRIEN: 5 Q. And you haven't looked at that to date, have 6 you? 7 MR. MACISAAC: 8 A. We have not, other than a cursory discussion. 9 MR. O'BRIEN: 10 Q. All right, and are you - 11 MR. MACISAAC: 12 A. Not in any detail. 13 MR. O'BRIEN: 14 Q. Not in any detail, okay. 15 MR. MACISAAC: 16 A. Not in any detail, sir. 17 MR. O'BRIEN: 18 Q. In terms of assuming you had gotten moving on 19 a CT acquisition earlier, do you think it may 20 have been more cost effective with respect to 21 this synchronous condenser, is it possible you 22 could have got that as part of a CT earlier? 23 MR. MACISAAC: 24 A. So - 25 MR. O'BRIEN:</p>	<p>Page 148</p> <p>1 Q. So in terms of that 60 megawatt one, the 120 2 million, that was a new unit, was it? 3 MR. MACISAAC: 4 A. The unit that we installed is new and unused. 5 It was purpose built for another customer and 6 it went back into the aftermarket and we 7 bought it unused unfired. 8 MR. O'BRIEN: 9 Q. Okay, but there's no difference between that 10 and having a new unit built for yourself 11 price-wise? 12 MR. MACISAAC: 13 A. Except that a new unit built for ourselves 14 obviously inside the responses that we got 15 would have cost customers more. 16 MR. O'BRIEN: 17 Q. And that's what I'm asking, I guess, in terms 18 of that 60 megawatt, the 120 million one, that 19 would have been built for you would have cost 20 more? 21 MR. MACISAAC: 22 A. Correct, it would have been purpose built. 23 MR. O'BRIEN: 24 Q. If it wasn't an existing unit - 25 MR. MACISAAC:</p>

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<p>1 A. On a dollars per kilowatt, it was not 2 existing, correct.</p> <p>3 MR. O'BRIEN:</p> <p>4 Q. Okay. You had indicated, and I think the 5 application indicated, that there was an eight 6 month commitment given by ProEnergy, was it, 7 to have that CT in place?</p> <p>8 MR. MACISAAC:</p> <p>9 A. Correct.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. And can you just give me an overview as to - I 12 think your testimony was it was about a two 13 week difference in terms of that eighth month?</p> <p>14 MR. MACISAAC:</p> <p>15 A. Yes.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Where does that eighth month sort of square 18 with the December 14th time you required it to 19 be done?</p> <p>20 MR. MACISAAC:</p> <p>21 A. So how that squares, and I probably didn't do 22 justice to the explaining earlier, when 23 ProEnergy offered to us inside of the public 24 tender process their delivery and in-service 25 was stated as eight months after receipt of</p>	<p>1 as complex as this, and you think about things 2 like emissions testing and run-up to ensure 3 that you're in compliance with your 4 environmental permits, so they stayed engaged 5 with us through all of the commissioning up to 6 emissions testing, so that there is work that 7 was happening for a period of time where there 8 is a unique skillset that comes in and does 9 that sort of commissioning.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. Right.</p> <p>12 MR. MACISAAC:</p> <p>13 A. Emissions testing, so they stayed on as part 14 of that, but inside of any new asset and the 15 delivery of a piece of gear like this, and 16 it's a big piece of kit, they were engaged 17 through the commissioning right into 18 acceptance and hand over to operations in 19 February.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. And in terms of commissioning then, when was 22 commissioning done?</p> <p>23 MR. MACISAAC:</p> <p>24 A. When was it done or when was it started?</p> <p>25 MR. O'BRIEN:</p>
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<p>1 award.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay, and you never got approval until March 4 of 2015, and did they meet - two weeks off on 5 that, are they two weeks late?</p> <p>6 MR. MACISAAC:</p> <p>7 A. I'm sorry, we awarded to them on May 16th.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. Yes, okay.</p> <p>10 MR. MACISAAC:</p> <p>11 A. And the unit was synchronized to the grid on 12 January 21st.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. Okay.</p> <p>15 MR. MACISAAC:</p> <p>16 A. So that's within a week.</p> <p>17 MR. O'BRIEN:</p> <p>18 Q. Okay, within a week, and their eight month 19 period, what was ProEnergy required to do 20 after January 21st, anything? Were they 21 involved at any point after?</p> <p>22 (12:15 p.m.)</p> <p>23 MR. MACISAAC:</p> <p>24 A. We're still fine-tuning, so there was - you 25 know, if you think about a plant as large and</p>	<p>1 Q. Both.</p> <p>2 MR. MACISAAC:</p> <p>3 A. Okay, so there are two different types of 4 commissioning involved. There was 5 commissioning that we used energy locally, and 6 then there was commissioning that we did after 7 synchronization of the grid, and both are 8 equally important. So the commissioning work 9 that was done up until the time that you 10 synchronized is to ensure that all of the 11 components functioned as they're intended to, 12 and there's a big go/no go process involved 13 around all of that that went on for, I would 14 say, in excess of six weeks, and then online 15 commissioning is different yet again. Online 16 commissioning is after synchronization to the 17 grid and that's fine-tuning and optimization.</p> <p>18 MR. O'BRIEN:</p> <p>19 Q. Who's involved with doing that? Is that 20 something that you guys do, ProEnergy, did 21 they do that?</p> <p>22 MR. MACISAAC:</p> <p>23 A. We do it with ProEnergy and with our own 24 people, and with folks from Paul's shop too.</p> <p>25 MR. O'BRIEN:</p>

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<p>1 Q. Okay, and when was that completed?</p> <p>2 MR. MACISAAC:</p> <p>3 A. There's different pieces, right, there's</p> <p>4 different pieces. So inside of the emissions</p> <p>5 commissioning, inside of the operational piece</p> <p>6 that's back to our folks in system planning</p> <p>7 and system operations, so - can you help me</p> <p>8 with which piece you're hunting for?</p> <p>9 MR. O'BRIEN:</p> <p>10 Q. And maybe I'm not sure, to be honest. I'm</p> <p>11 just wondering - I'm trying to get a sense of</p> <p>12 the project and when the project is completed</p> <p>13 from ProEnergy's perspective. Is the</p> <p>14 commissioning the end for ProEnergy, is it a</p> <p>15 close out, how does that work?</p> <p>16 MR. MACISAAC:</p> <p>17 A. There's two different pieces here. So</p> <p>18 ProEnergy has actually started a new</p> <p>19 engagement with us, and that's around</p> <p>20 operational oversight. So they are engaged</p> <p>21 with us in terms of support of everyday</p> <p>22 maintenance and operations, providing</p> <p>23 technical oversight to our own team that are</p> <p>24 there for maintenance and operations.</p> <p>25 MR. O'BRIEN:</p>	<p>1 building and all of what ProEnergy had to do</p> <p>2 in terms of that, the contract itself, when</p> <p>3 was the building complete, and we saw pictures</p> <p>4 of it there earlier or partial complete</p> <p>5 building, and this is the 8 million dollar</p> <p>6 allowance that we talked about, when was that</p> <p>7 completed?</p> <p>8 MR. MACISAAC:</p> <p>9 A. I don't have it on my list of milestone</p> <p>10 activities.</p> <p>11 MR. O'BRIEN:</p> <p>12 Q. Was the CT up and operating before that was</p> <p>13 completed?</p> <p>14 MR. MACISAAC:</p> <p>15 A. Oh, yeah.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Yes, that's what I understood.</p> <p>18 MR. MACISAAC:</p> <p>19 A. Yeah.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Because that picture looked like it was taken</p> <p>22 in March of 2015.</p> <p>23 MR. MACISAAC:</p> <p>24 A. I would have said that the building was</p> <p>25 extensively complete in May, but I could be</p>
<p>Page 154</p> <p>1 Q. And that's a different engagement that's not</p> <p>2 covered under the 128 million?</p> <p>3 MR. MACISAAC:</p> <p>4 A. That's right, that's separate from the budget.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. But in terms of the 128 million that we're</p> <p>7 looking at in that budget, when was ProEnergy</p> <p>8 finished in terms of their involvement?</p> <p>9 MR. MACISAAC:</p> <p>10 A. So they stated to demobilize from site in</p> <p>11 February.</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. Okay.</p> <p>14 MR. MACISAAC:</p> <p>15 A. And the majority of - they scaled down their</p> <p>16 crew immediately in February once we had</p> <p>17 handed the unit over to regulated Hydro for</p> <p>18 operation, and they kept a skeleton crew on,</p> <p>19 just a couple of people, plus their project</p> <p>20 lead, for the final points around</p> <p>21 commissioning and small issues that you know</p> <p>22 you're going to work through inside of the</p> <p>23 first four to six months.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. Okay, and in terms of the completion of the</p>	<p>Page 156</p> <p>1 corrected on that.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay.</p> <p>4 MR. MACISAAC:</p> <p>5 A. And you're right, the CT was running long</p> <p>6 before then. The CT was running and connected</p> <p>7 to the grid back in January.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. And based on some of the information we had in</p> <p>10 terms of when it was being used, we thought it</p> <p>11 was in February, but it was in January it was</p> <p>12 actually connected and running to the grid?</p> <p>13 MR. MACISAAC:</p> <p>14 A. Yeah, it was synchronized to the grid on</p> <p>15 January 21st.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. January 21st.</p> <p>18 MR. MACISAAC:</p> <p>19 A. And it was fully handed over to operations in</p> <p>20 February.</p> <p>21 MR. O'BRIEN:</p> <p>22 Q. Okay.</p> <p>23 MR. MACISAAC:</p> <p>24 A. And again I apologize for my back being to</p> <p>25 you.</p>

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<p>1 MR. O'BRIEN:</p> <p>2 Q. In terms of - I wonder if we could bring up</p> <p>3 the CT application from April 10th, 2014, and</p> <p>4 the report attached to that. There's a</p> <p>5 project schedule attached, page 41, of the</p> <p>6 report. Is that the same thing? No, I'm</p> <p>7 looking for the CT application from April</p> <p>8 10th. That's the report there. The project</p> <p>9 schedule, Table 11, page 41. I think you're</p> <p>10 in the appendices there, Jennifer.</p> <p>11 MS. GRAY:</p> <p>12 Q. Sorry.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. That's okay. Here we go. So here's a project</p> <p>15 schedule there and this was filed as part of</p> <p>16 the application. So the first part of that,</p> <p>17 the planning stage, a bunch of that was all</p> <p>18 done before the application was approved, is</p> <p>19 that fair?</p> <p>20 MR. MACISAAC:</p> <p>21 A. Okay.</p> <p>22 MR. O'BRIEN:</p> <p>23 Q. And then - because your application is not</p> <p>24 until April, 2014. The design - right down on</p> <p>25 the bottom there of design, okay, so that's</p>	<p>1 Q. Okay, that was the initial one.</p> <p>2 MR. MACISAAC:</p> <p>3 A. So there was a commissioning piece for</p> <p>4 ProEnergy, and then in addition to that, there</p> <p>5 was a commissioning piece for ourselves.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. And I think that's probably fair when we</p> <p>8 scroll down here. This is probably - activity</p> <p>9 8, that's part of the commissioning, I</p> <p>10 believe, in December of 2014?</p> <p>11 MR. MACISAAC:</p> <p>12 A. Correct.</p> <p>13 MR. O'BRIEN:</p> <p>14 Q. So the close out then has February of 2015.</p> <p>15 I don't see - the first activity is project</p> <p>16 deficiencies, but the building itself wasn't</p> <p>17 complete by February. What sort of progress</p> <p>18 management did you have over the completion of</p> <p>19 that building, were you involved at all</p> <p>20 yourself in overseeing it?</p> <p>21 MR. MACISAAC:</p> <p>22 A. So we have a project team on the ground.</p> <p>23 MR. O'BRIEN:</p> <p>24 Q. Yeah.</p> <p>25 MR. MACISAAC:</p>
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<p>1 all done. If we can scroll all the way down</p> <p>2 to the bottom, I just want to get an idea -</p> <p>3 commissioning, November, 2014. So the</p> <p>4 application was approved and the contract was</p> <p>5 given in May of 2016(sic). This project</p> <p>6 schedule, was this part of the contract with</p> <p>7 ProEnergy?</p> <p>8 MR. MACISAAC:</p> <p>9 A. We had agreed milestones with ProEnergy inside</p> <p>10 of a schedule that saw them handing the unit</p> <p>11 over to us for commissioning commencing in</p> <p>12 November and December, so there were certain</p> <p>13 pieces that were to be commissioned early, and</p> <p>14 then there was commissioning that carried on</p> <p>15 throughout December.</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Okay. If we scroll down then again, I think</p> <p>18 there's a little bit more there -</p> <p>19 MR. MACISAAC:</p> <p>20 A. I think the better reference would be the</p> <p>21 initial planning that we gave to the PUB, and</p> <p>22 we updated it on a bi-weekly basis, where we</p> <p>23 showed the commissioning of the unit running</p> <p>24 all the way out to the end of December.</p> <p>25 MR. O'BRIEN:</p>	<p>1 A. And again our priority was coordination and</p> <p>2 safety of our folks, coordination of the works</p> <p>3 and getting the CT operational. So throughout</p> <p>4 and on a daily basis, because we're building a</p> <p>5 building around - actually building a gas</p> <p>6 turbine inside the plant, so you can imagine</p> <p>7 that there's some complexity in that and the</p> <p>8 risk profile grows when you layer on weather</p> <p>9 and wind as well. So on a daily basis, down</p> <p>10 to the discreet list of steel, we're saying</p> <p>11 go/no go in terms of safety for people working</p> <p>12 underneath and in proximity to the</p> <p>13 construction. So I know it's easy to say the</p> <p>14 schedule is this -</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. Yeah.</p> <p>17 MR. MACISAAC:</p> <p>18 A. But you manage it on a daily basis with</p> <p>19 respect to safety and advancing the work, and</p> <p>20 there's days that we didn't work on the</p> <p>21 building and there's days in a row that we</p> <p>22 didn't work on the building because it wasn't</p> <p>23 safe to do so.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. And, I guess, that was more what I was</p>

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<p>1 wondering is whether or not you sort of took a 2 hands-off approach on the management or you 3 were actually well involved in terms of 4 knowing how this is proceeding and if there 5 was issues with - 6 MR. MACISAAC: 7 A. On a daily basis, there's a coordination 8 meeting with all the involved contracts and 9 the folks, so that you knew which work phases 10 were being worked, what the work was in that 11 space, who's going to be working them inside 12 of what hours, and that included mechanical, 13 electrical, and civil. 14 MR. O'BRIEN: 15 Q. Okay. 16 MR. MACISAAC: 17 A. To ensure that we didn't put anybody in a 18 place where they were exposed. 19 MR. O'BRIEN: 20 Q. Okay. So I wonder with that in mind, and Ms. 21 Greene talked to you about - you gave some 22 evidence about the allowances for the building 23 of 8 million, and, I guess, the additional 24 amount sought by a contractor in March, and 25 that's the first time you got any</p>	<p>1 MR. MACISAAC: 2 A. Because what you have is a project that was 3 delivered within a week of schedule and within 4 8.5 percent of its original budget, in 5 Newfoundland, in the wintertime, through the 6 holiday season. I'm just being honest with 7 folks - 8 MR. O'BRIEN: 9 Q. I understand that. 10 MR. MACISAAC: 11 A. Because we can beat away at this, but I think 12 what you have is a really, really good 13 contractor who's done really good work, both 14 Newfoundland based contractor and the one from 15 outside of Canada, and we're down inside and 16 we're saying you didn't do this and you didn't 17 do that, but when you bring it up to a high 18 level - and I've done project work for in 19 excess of 20 years in Eastern Europe, 20 Continental Europe, South America, and the 21 United States. This is a good project, this 22 is a good project, and customers are getting 23 value for money. 24 MR. O'BRIEN: 25 Q. I appreciate that, Mr. MacIsaac, and, I guess</p>
<p>Page 162</p> <p>1 understanding that there was going to be an 2 additional figure sought with respect to the 3 building, is that fair? 4 MR. MACISAAC: 5 A. That's fair. 6 MR. O'BRIEN: 7 Q. And I'm wondering - 8 MR. MACISAAC: 9 A. I'm just being pragmatic for a second. 10 MR. O'BRIEN: 11 Q. Yeah. 12 MR. MACISAAC: 13 A. So when, in your knowledge, with respect to 14 construction and doing large scale projects 15 that are in a place where you're working 16 against close objectives, have you not had a 17 contractor come back at the end and talk to 18 you and say, hey, look, I know I should have 19 talked to you about this sooner, but I need to 20 sit down and talk to you about a variance I 21 have on a particular piece of work. I'm just 22 being practical with folks in the room for a 23 minute. 24 MR. O'BRIEN: 25 Q. Yeah.</p>	<p>Page 164</p> <p>1 my questions are more focused that if you got 2 people on the ground and you got people that 3 see what's going on, I'm wondering would there 4 have been any knowledge within your group that 5 this contractor was running into difficulties 6 with the construction? 7 MR. MACISAAC: 8 A. So on our standard agenda for ongoing meetings 9 with the contractor, it says right across the 10 bottom of the standard agenda, "If you do work 11 without announcing it, and you believe it's 12 extra work that you expect additional 13 compensation for, without talking to us, 14 you're off sides". 15 MR. O'BRIEN: 16 Q. Uh-hm. 17 MR. MACISAAC: 18 A. So we're pretty deliberate in that space. 19 MR. O'BRIEN: 20 Q. And that's standard. I mean, something like 21 that, you got a change order, you want to - 22 MR. MACISAAC: 23 A. I think what you have to do is ensure that you 24 hold your contract resources accountable and I 25 believe that we do a good job in that space.</p>

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<p>1 MR. O'BRIEN:</p> <p>2 Q. And so what you're saying, I guess, in terms</p> <p>3 of your regular discussions with the</p> <p>4 contractor on site, there was never anything</p> <p>5 brought up that we're having difficulty with</p> <p>6 complexity with this building?</p> <p>7 MR. MACISAAC:</p> <p>8 A. They surprised us. They surprised us at the</p> <p>9 end with their claim. We hadn't anticipated</p> <p>10 and we sat down and went through it, and we</p> <p>11 were honest and objective. There were some</p> <p>12 merits in some of their claim, not all of it,</p> <p>13 and the claim was considerably more than what</p> <p>14 we agreed in the end.</p> <p>15 (12:30 p.m.)</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. Well, let me ask you that, what was the claim</p> <p>18 initially, what was the additional claim they</p> <p>19 were looking for above the - your best</p> <p>20 estimate. I know you've given an undertaking</p> <p>21 to give that information.</p> <p>22 MR. MACISAAC:</p> <p>23 A. We'll get it for you so that you have a line</p> <p>24 of sight on it.</p> <p>25 MR. O'BRIEN:</p>	<p>1 A. Sure.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. And when will you know?</p> <p>4 MR. MACISAAC:</p> <p>5 A. I think we're there.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. You think you're there. Okay.</p> <p>8 MR. MACISAAC:</p> <p>9 A. I think we're there.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. And you believe you're under that figure?</p> <p>12 MR. MACISAAC:</p> <p>13 A. Yes.</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. And you'll provide that undertaking so we can</p> <p>16 have that on the record.</p> <p>17 MS. GLYNN:</p> <p>18 Q. Duly noted on the record.</p> <p>19 MR. O'BRIEN:</p> <p>20 Q. Thank you. Are there any outstanding claims</p> <p>21 or liens on the project?</p> <p>22 MR. MACISAAC:</p> <p>23 A. There were initially two claims, and they've</p> <p>24 both been discharged.</p> <p>25 MR. O'BRIEN:</p>
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<p>1 Q. I mean, was it double, was it triple?</p> <p>2 MR. MACISAAC:</p> <p>3 A. More than double.</p> <p>4 MR. O'BRIEN:</p> <p>5 Q. More than double, okay.</p> <p>6 MR. MACISAAC:</p> <p>7 A. Yeah.</p> <p>8 MR. O'BRIEN:</p> <p>9 Q. I wonder if we could pull up NP-NLH-17 from</p> <p>10 the capital budget application. That's one of</p> <p>11 the Informations, I think, Information 35.</p> <p>12 Ms. Greene talked to you about the variance.</p> <p>13 I guess, the first question I had for you on</p> <p>14 that was the \$10,500,400.00, that variance</p> <p>15 there, that's it, is it? Is that the complete</p> <p>16 variance now, are you expecting any further</p> <p>17 cost on top of the total there?</p> <p>18 MR. MACISAAC:</p> <p>19 A. So that was the forecast based on what we knew</p> <p>20 at the time and we believe it's going to be</p> <p>21 undercut.</p> <p>22 MR. O'BRIEN:</p> <p>23 Q. That's what I was going to ask, and can you</p> <p>24 give me an undertaking to provide what you -</p> <p>25 MR. MACISAAC:</p>	<p>1 Q. Okay.</p> <p>2 MR. MACISAAC:</p> <p>3 A. One was related to the building construction</p> <p>4 and the other was the HVAC contractor for the</p> <p>5 building.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. So all that is built into the final figure?</p> <p>8 MR. MACISAAC:</p> <p>9 A. It is, yes.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. Let me ask you about black start and the use</p> <p>12 of the CT in black start before I go further</p> <p>13 into this. We understand from earlier</p> <p>14 testimony that the CT hasn't been tested yet</p> <p>15 to black start the Holyrood plant. I</p> <p>16 understand it's been tested to - it can black</p> <p>17 start itself.</p> <p>18 MR. MACISAAC:</p> <p>19 A. Correct.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. But is there additional cost associated with</p> <p>22 that?</p> <p>23 MR. MACISAAC:</p> <p>24 A. Not at this point. I believe, and I'll have</p> <p>25 to double check, I believe we've got the</p>

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<p>1 engineering work and the materials work sorted 2 in that space.</p> <p>3 MR. O'BRIEN: 4 Q. Okay, and built into this forecast that we see 5 here in the original budget, were there costs 6 for the testing of black start as part of the 7 commissioning process or anything like that?</p> <p>8 MR. MACISAAC: 9 A. It depends on when you do it. It depends on 10 when you do it, and the reason I say that is 11 what generation you have to put on in order to 12 support doing the test and the coordination of 13 outages.</p> <p>14 MR. O'BRIEN: 15 Q. And who's -</p> <p>16 MR. MACISAAC: 17 A. And the reason that we didn't do it was 18 coordination of outages and the incremental 19 cost that it would have placed as a burden on 20 customers.</p> <p>21 MR. O'BRIEN: 22 Q. And who's responsible for doing it, for 23 actually coordinating it and organizing it?</p> <p>24 MR. MACISAAC: 25 A. We work with system planning, system</p>	<p>1 impacted for safety considerations associated 2 with constructing the building in parallel 3 with and around other work fronts". This is 4 on the screen in front of you there, that 5 first bullet.</p> <p>6 MR. MACISAAC: 7 A. Yes.</p> <p>8 MR. O'BRIEN: 9 Q. Was that - and also many interruptions of 10 heavy lifts and other aerial work due to high 11 winds and inclement weather. Were you advised 12 of any concerns that would increase costs 13 associated with building construction of that 14 nature prior to -</p> <p>15 MR. MACISAAC: 16 A. At that time?</p> <p>17 MR. O'BRIEN: 18 Q. Prior to March of 2015?</p> <p>19 MR. MACISAAC: 20 A. Prior to March of 2015, no.</p> <p>21 MR. O'BRIEN: 22 Q. No?</p> <p>23 MR. MACISAAC: 24 A. No.</p> <p>25 MR. O'BRIEN:</p>
<p>Page 170</p> <p>1 operations in the coordination of outages.</p> <p>2 MR. O'BRIEN: 3 Q. So that's something that systems planning and 4 operations is involved in to do that?</p> <p>5 MR. MACISAAC: 6 A. Correct.</p> <p>7 MR. O'BRIEN: 8 Q. If we go back to the figure here, we were 9 looking at - if we turn to line 13 and 14, it 10 says, "The variance is mainly attributed to a 11 higher than budgeted cost for the turbine 12 building enclosure. The following are the 13 main contributors of the cost". So there's a 14 list of three contributors. The first one 15 there, "The building construction progress was 16 impacted for safety considerations associated 17 with constructing the building in parallel 18 with and around other work fronts". Were you 19 advised of any concern of that nature prior to 20 March of 2015?</p> <p>21 MR. MACISAAC: 22 A. I'm sorry, can you repeat the question?</p> <p>23 MR. O'BRIEN: 24 Q. The first bullet there as a contributor to the 25 cost, "The building construction progress was</p>	<p>Page 172</p> <p>1 Q. And did anyone in your group report to you 2 that there was something above and beyond what 3 you'd normally consider in a project such as 4 this for inclement weather or safety 5 considerations?</p> <p>6 MR. MACISAAC: 7 A. In what regard?</p> <p>8 MR. O'BRIEN: 9 Q. That's what I'm wondering, if you had any 10 discussions with anyone in your group prior to 11 when the contractor indicated to you they had 12 additional claims, that there were concerns 13 about safety considerations and that affected 14 the construction of - budgeted construction 15 costs?</p> <p>16 MR. MACISAAC: 17 A. I think it's important to have the context 18 right from the outset. When we looked at the 19 build and the work that we were going to be 20 doing, we prioritized having the generation in 21 place on the critical path, and we built the 22 building in two phases and wrapped the 23 building around the ongoing construction of 24 the gas turbine and all of its auxiliary 25 systems, right.</p>

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<p>1 MR. O'BRIEN:</p> <p>2 Q. Okay.</p> <p>3 MR. MACISAAC:</p> <p>4 A. So it wasn't that it wasn't contemplated. In</p> <p>5 fact, it was. I wouldn't want to leave</p> <p>6 anybody with the impression that it wasn't</p> <p>7 planned for, that it wasn't deliberate. We</p> <p>8 had always intended to build the building in</p> <p>9 two phases so that all of the big pieces,</p> <p>10 which is actually where the gas turbine</p> <p>11 package itself sits, would be left free and</p> <p>12 clear and not have a building envelope around</p> <p>13 it, so that we could have access to cranes for</p> <p>14 heavy lifting and all that good stuff. While</p> <p>15 we did the other phase of the building which</p> <p>16 was reverse osmosis, water treatment plant,</p> <p>17 water storage, all of the electrical switch</p> <p>18 gear, that was all getting placed under a roof</p> <p>19 line, and then we get up to, I would say, the</p> <p>20 half way point in the building, and then we</p> <p>21 shifted emphasis on the building because we</p> <p>22 already had all of the big pieces, the gas</p> <p>23 turbine package, in place.</p> <p>24 MR. O'BRIEN:</p> <p>25 Q. And the contractor would have been aware of</p>	<p>1 A. And it's not just the complexity of the</p> <p>2 design, it's the complexity of the execution,</p> <p>3 right. So you're doing coordination on work</p> <p>4 fronts on a daily basis in order to keep folks</p> <p>5 safe, and to keep the work moving.</p> <p>6 MR. O'BRIEN:</p> <p>7 Q. Okay.</p> <p>8 MR. MACISAAC:</p> <p>9 A. Right. So you have complexity in the design,</p> <p>10 but you also have complexity in the execution</p> <p>11 as well.</p> <p>12 MR. O'BRIEN:</p> <p>13 Q. Just give me an idea as to how you came to</p> <p>14 grounds on what parts of the addition to the</p> <p>15 allowance that the contractor was claiming,</p> <p>16 and how you came to grounds that these were</p> <p>17 legitimate claims?</p> <p>18 MR. MACISAAC:</p> <p>19 A. I'd have to go back and deal the file out, but</p> <p>20 what we did was we looked at it first</p> <p>21 ourselves and in anticipation of having a sit</p> <p>22 down rigorous dialogue with our contractor,</p> <p>23 ProEnergy, we engaged Revay &amp; Associates to</p> <p>24 sit and look at what we had and what they had</p> <p>25 submitted and do the hard scrub all the way</p>
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<p>1 those plans all along?</p> <p>2 MR. MACISAAC:</p> <p>3 A. Well, that would have been between ProEnergy</p> <p>4 and their contractor on the building.</p> <p>5 MR. O'BRIEN:</p> <p>6 Q. And did anyone from ProEnergy or their</p> <p>7 contractor on the building, did they visit the</p> <p>8 site before submitting tenders or anything</p> <p>9 like that?</p> <p>10 MR. MACISAAC:</p> <p>11 A. That's probably a question for ProEnergy in</p> <p>12 terms of them being able to confirm who they</p> <p>13 worked with on the building.</p> <p>14 MR. O'BRIEN:</p> <p>15 Q. Yeah, okay. So you don't have any information</p> <p>16 on that particular -</p> <p>17 MR. MACISAAC:</p> <p>18 A. I don't know who they had visit or not visit</p> <p>19 the site.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. All right. So if we go down to number 3 here,</p> <p>22 and that's the increased building complexity</p> <p>23 that you talked about earlier, I think, and</p> <p>24 the HVAC system.</p> <p>25 MR. MACISAAC:</p>	<p>1 down through in terms of what pieces, in terms</p> <p>2 of variance that they were claiming for had</p> <p>3 merit and value. So we didn't initially say,</p> <p>4 no. What we said was we'll take it under</p> <p>5 advisement, we'll take it and look at it, and</p> <p>6 review it, and then we'll come back to you and</p> <p>7 ask for the opportunity to sit and listen and</p> <p>8 have you tell us why you believe there's merit</p> <p>9 in your claim.</p> <p>10 MR. O'BRIEN:</p> <p>11 Q. And is there any component of that additional</p> <p>12 claim that's a labour component?</p> <p>13 MR. MACISAAC:</p> <p>14 A. I'd have to sit and go down through it.</p> <p>15 MR. O'BRIEN:</p> <p>16 Q. Could you provide an undertaking just to</p> <p>17 provide that component?</p> <p>18 MR. MACISAAC:</p> <p>19 A. We'll share with you what we have in that</p> <p>20 space.</p> <p>21 MS. GLYNN:</p> <p>22 Q. Noted on the record.</p> <p>23 MR. MACISAAC:</p> <p>24 A. What we should offer to do is do an executive</p> <p>25 summary for you because it's pretty</p>

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<p>1 voluminous.</p> <p>2 MR. O'BRIEN:</p> <p>3 Q. Okay, I'd appreciate that. At the time when</p> <p>4 this additional amount was being looked at, I</p> <p>5 understood that you have the eight 2 megawatt</p> <p>6 diesels on site for black start purposes by</p> <p>7 this point when you're looking at it in March</p> <p>8 of 2015, and that's a cost that you're</p> <p>9 incurring, I guess, for black start purposes.</p> <p>10 Was that considered when you looked at the</p> <p>11 overall cost on the CT project, that you were</p> <p>12 actually paying additional amounts here for</p> <p>13 that as well?</p> <p>14 MR. MACISAAC:</p> <p>15 A. I'm sorry, can you ask that question again?</p> <p>16 MR. O'BRIEN:</p> <p>17 Q. The overrun of - the double the 8 million, I</p> <p>18 mean, that's a fair bit and that surprised you</p> <p>19 at that time. Did you consider as well that</p> <p>20 on top of that you've also got additional cost</p> <p>21 for eight diesels that you had to put in place</p> <p>22 and will keep in place until you can black</p> <p>23 start the CT? That wasn't an issue for you at</p> <p>24 all?</p> <p>25 MR. MACISAAC:</p>	<p>1 protected and integrated with the HVAC system.</p> <p>2 Fire protection system design is in full</p> <p>3 compliance with FM Global Standards". Was</p> <p>4 that part of a design in the first place, or</p> <p>5 was there a change in that?</p> <p>6 MR. MACISAAC:</p> <p>7 A. So the change in that space was the building</p> <p>8 was more complex, the HVAC system was more</p> <p>9 complex, and as a result, the FM requirements</p> <p>10 were more than what ProEnergy, as the</p> <p>11 contractor, had anticipated. So it wasn't</p> <p>12 consistent - they've done a lot of these</p> <p>13 projects, and it was not consistent with what</p> <p>14 they had anticipated inside of the buildings</p> <p>15 and the fire protection that they typically</p> <p>16 do, and they found that the demands from</p> <p>17 Factory Mutual in Canada were more stringent</p> <p>18 than what they were familiar with in terms of</p> <p>19 the demands from Factory Mutual in the United</p> <p>20 States.</p> <p>21 MR. O'BRIEN:</p> <p>22 Q. And do you know -</p> <p>23 MR. MACISAAC:</p> <p>24 A. And the other thing in terms of context, if I</p> <p>25 could, just for a second, they're engineering</p>
<p>Page 178</p> <p>1 A. I'm not sure I'm making a linkage between the</p> <p>2 two, so maybe you can help me understand how</p> <p>3 you're linking the two.</p> <p>4 MR. O'BRIEN:</p> <p>5 Q. I'm just trying to get a flavour for how you</p> <p>6 look at and how you value that additional</p> <p>7 amount that customers are going to have to pay</p> <p>8 and how you value that when you know as well</p> <p>9 that you've got additional cost for black</p> <p>10 start on top of a CT that's in place now</p> <p>11 that's supposed to be able to black start too,</p> <p>12 did you consider those at that time, or did</p> <p>13 you consider it later?</p> <p>14 MR. MACISAAC:</p> <p>15 A. So separating the black start from the CT, so</p> <p>16 I'd state very clearly, we very closely</p> <p>17 measure value for customers because that's an</p> <p>18 important part of our mandate, I think is the</p> <p>19 answer that you're looking for.</p> <p>20 MR. O'BRIEN:</p> <p>21 Q. Okay, I just want to make sure you're looking</p> <p>22 at that, and there was one other thing I</p> <p>23 wanted to ask you about under number 3 here,</p> <p>24 "The fire protection system is complex due to</p> <p>25 the nature of the equipment that's being</p>	<p>Page 180</p> <p>1 this building as the project is rolling down</p> <p>2 the road, right.</p> <p>3 MR. O'BRIEN:</p> <p>4 Q. Yeah, I understand that.</p> <p>5 MR. MACISAAC:</p> <p>6 A. Okay.</p> <p>7 MR. O'BRIEN:</p> <p>8 Q. And in terms of going forward then, once the</p> <p>9 CT was up and running and we talked about the</p> <p>10 testing of the black start, and I understood</p> <p>11 there was a short sort of window of time where</p> <p>12 you can test that CT for black start purposes.</p> <p>13 Is that your understanding as well, there's</p> <p>14 only a few windows you can do that?</p> <p>15 (12:45 p.m.)</p> <p>16 MR. MACISAAC:</p> <p>17 A. And again you have to layer in, and I'm not</p> <p>18 trying to make the response complicated, but</p> <p>19 you have to layer in all of the other capital</p> <p>20 maintenance work that's inside of our master</p> <p>21 outage plan, and the window of opportunity, so</p> <p>22 we're driving winter readiness, and when there</p> <p>23 is a large component in the Holyrood plant</p> <p>24 that is capital work and a large component</p> <p>25 that is corrective and preventative</p>

<p style="text-align: right;">Page 181</p> <p>1 maintenance, and then inside of that is to  2 identify an optimal window to get in and do  3 the black start, and inside of doing that,  4 because you have major unit outages in  5 Holyrood, it would have meant that we would  6 have put the CT on and run the CT in order to  7 black start test, and fuel costs alone were  8 significant to the point that we thought it  9 more prudent to do that next year in the  10 spring.</p> <p>11 MR. O'BRIEN:  12 Q. Do you know if there was a window initially  13 planned to do that in the summer of 2015?</p> <p>14 MR. MACISAAC:  15 A. I'm going to defer to Paul's shop, but I  16 believe there was.</p> <p>17 MR. O'BRIEN:  18 Q. And in terms of -</p> <p>19 MR. MACISAAC:  20 A. And I know that we had made readiness for  21 that.</p> <p>22 MR. O'BRIEN:  23 Q. And that would have been your role in terms of  24 making readiness for it?</p> <p>25 MR. MACISAAC:</p>	<p style="text-align: right;">Page 183</p> <p>1 MR. MACISAAC:  2 A. It would have been us looking at the request  3 from system planning, system operations in  4 terms of how frequent when they plan to run,  5 what the durations would be.</p> <p>6 MR. O'BRIEN:  7 Q. Okay.</p> <p>8 MR. MACISAAC:  9 A. And then they would tell us what their  10 requirements were for storage.</p> <p>11 MR. O'BRIEN:  12 Q. And if we could pull up GT-NP-NLH-003, sort of  13 a follow up on that, how long would fuel  14 storage plan for the 100 megawatt combustion  15 turbine allow it to operate at nameplate  16 rating without being replenished. And if you  17 read through that response, there seems to be  18 sort of a 60 to 80 continuous hour period.</p> <p>19 MR. MACISAAC:  20 A. That reconciles with my recall.</p> <p>21 MR. O'BRIEN:  22 Q. That reconciles, okay, all right. And in  23 terms of that period, would Hydro have done  24 any analysis as to whether or not there's any  25 likelihood that outages could last 60 to 80</p>
<p style="text-align: right;">Page 182</p> <p>1 A. That's right.</p> <p>2 MR. O'BRIEN:  3 Q. But in terms of actually going through the  4 process and testing it, that wouldn't have  5 been your role?</p> <p>6 MR. MACISAAC:  7 A. We don't decide the master outage plan.</p> <p>8 MR. O'BRIEN:  9 Q. If I can ask you just a few questions  10 concerning fuel storage for the CT, and if we  11 could bring up GT-NP-NLH-002.</p> <p>12 MS. GRAY:  13 Q. Sorry, Mr. O'Brien, can you say that again,  14 please?</p> <p>15 MR. O'BRIEN:  16 Q. Sorry, it's NP-NLH-002 under the GT. Okay,  17 and that's just the figure there, the amount  18 of fuel storage available for the new CT use,  19 660,000 US gallons. Were you involved in  20 preparing that assessment, that wouldn't have  21 been your role? What role would you have or  22 knowledge would you have in terms of storage  23 availability for the CT, is that just an  24 operation thing or is it something you'd have  25 any involvement with?</p>	<p style="text-align: right;">Page 184</p> <p>1 hours and whether or not there's sufficient  2 fuel storage on site or to look at more?</p> <p>3 MR. MACISAAC:  4 A. Again, that would come from -</p> <p>5 MR. O'BRIEN:  6 Q. From operations.</p> <p>7 MR. MACISAAC:  8 A. Yeah.</p> <p>9 MR. O'BRIEN:  10 Q. Okay, and I want to ask you just in terms of -</p> <p>11 MR. MACISAAC:  12 A. And I believe and I'm not prejudice in the  13 response, but I believe yes, they would have  14 looked at that.</p> <p>15 MR. O'BRIEN:  16 Q. Looked at that, okay. And in terms of, and  17 you've already touched on this, in terms of  18 the usage of the CT then, when the CT, when  19 you're looking to purchase the CT, I got an  20 understanding from some testimony early on  21 from Mr. Goulding, in fact, that the  22 philosophy on how the CT was going to be used  23 sort of changed in March of 2015, do you have  24 any knowledge of that?</p> <p>25 MR. MACISAAC:</p>

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1 A. I don't know what Mr. Goulding said, so maybe  
2 you can share a bit in terms of his comment to  
3 change around the philosophy of operation.  
4 MR. O'BRIEN:  
5 Q. Well it wasn't going to just be used--more of  
6 a contingency plan now too, it was going to be  
7 used for more purposes, in fact, we looked at  
8 some of the forecast load that was built into  
9 the rates, was at sort of 11 kigawatt hours,  
10 11.4 kigawatt hours of production in 2015 and  
11 we saw 24 kigawatt hours up to September,  
12 2015. Do you have any involvement with how  
13 it's going to be run?  
14 MR. MACISAAC:  
15 A. In my previous life?  
16 MR. O'BRIEN:  
17 Q. Yeah, in your previous life.  
18 MR. MACISAAC:  
19 A. In my previous life, no.  
20 MR. O'BRIEN:  
21 Q. No, okay, and I assumed that would have been  
22 the answer, I just wanted to -  
23 MR. MACISAAC:  
24 A. Yes.  
25 MR. O'BRIEN:

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1 Q. And I wonder if we could pull up PR-DD-NLH-12?  
2 So there was a request here for explanations  
3 on when the CT was offline and unable at any  
4 time during 2015 and it starts with a list of,  
5 I suppose it doesn't start with it, but  
6 there's an explanation for some are scheduled  
7 outages and some are unscheduled, and there's  
8 a list of dates here.  
9 MR. MACISAAC:  
10 A. Uh-hm.  
11 MR. O'BRIEN:  
12 Q. Do you have any involvement with--or did you  
13 have any involvement in preparing the answer  
14 to this RFI?  
15 MR. MACISAAC:  
16 A. Limited. The majority of them would come from  
17 operations.  
18 MR. O'BRIEN:  
19 Q. Operations, okay. And in terms of, if you  
20 look down this list of outages, did you have  
21 any direct involvement with determining what  
22 needed to be done on the CTs, some of these  
23 scheduled outages, was that for anything that  
24 you would have had directed, the scheduled  
25 outage? Is it something that came from your

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1 shop?  
2 MR. MACISAAC:  
3 A. The ones that are around the fuel system, some  
4 of those I can speak to in generalities and  
5 that would go back to us being in a place  
6 where we're commissioning for emissions,  
7 right, so changing on nozzles, getting in and  
8 changing valves, that was all in an effort to  
9 ensure that we met our operating permit.  
10 MR. O'BRIEN:  
11 Q. And is this in 2015?  
12 MR. MACISAAC:  
13 A. Yes.  
14 MR. O'BRIEN:  
15 Q. So some of these ones, the first one--sorry,  
16 the first one is the failed start that we saw  
17 from the outage on March 4th, but the 21st and  
18 22nd and April 17th, they're all scheduled  
19 outages, would those have been part of the  
20 commissioning process?  
21 MR. MACISAAC:  
22 A. Yes, it would be.  
23 MR. O'BRIEN:  
24 Q. All right, and how about the April 18th, the  
25 failed start. Do you have any knowledge

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1 directly as to what happened there?  
2 MR. MACISAAC:  
3 A. I'm going to look through a minute.  
4 MR. O'BRIEN:  
5 Q. Sure.  
6 MR. MACISAAC:  
7 A. What number is this?  
8 MS. DRAY:  
9 Q. PR-DD-NLH-012.  
10 MR. O'BRIEN:  
11 Q. PR-DD-NLH-012.  
12 MR. MACISAAC:  
13 A. So on the April 18th one, my note beside that  
14 is a loose wire in the 480 volt breaker  
15 permissive, so it's an internal wire  
16 connection.  
17 MR. O'BRIEN:  
18 Q. Okay, all right. And the next one is a  
19 scheduled outage, did that have to do with  
20 commissioning? April 23rd there's an eight  
21 hour outage there.  
22 MR. MACISAAC:  
23 A. Yeah, that's tied into, so--and I should  
24 provide a bit of context inside of the system,  
25 inside of a new unit, inside of, you know,

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<p>1 your first year really, a lot of it is 2 optimization, so inside of the lube oil system 3 what we're talking about here is the balancing 4 of the lube oil operating set point and it's a 5 bit of a complex system in that the lube oil 6 system for the generator end is the same as it 7 is for the rest of the unit and it shares a 8 common system. So this is about balancing and 9 optimization of set points inside the lube oil 10 operating system.</p> <p>11 MR. O'BRIEN: 12 Q. All right, so when you say in the first year, 13 so an optimization, so we go through the 14 entire list here, we come down to -</p> <p>15 MR. MACISAAC: 16 A. So May 14th, again that's replacement of the 17 nozzles, that's optimization of combustion for 18 emissions testing.</p> <p>19 MR. O'BRIEN: 20 Q. Okay, and this June 9th scheduled outage test 21 black start, was that for testing the black 22 start of the unit itself, as opposed to -</p> <p>23 MR. MACISAAC: 24 A. Yes.</p> <p>25 MR. O'BRIEN:</p>	<p>1 Q. Noted on the record.</p> <p>2 MR. O'BRIEN: 3 Q. And then we go down through, the next schedule 4 is a scheduled outage that's part of, is that 5 part of optimizing from our August 5th?</p> <p>6 MR. MACISAAC: 7 A. That's maintenance. I would say that's 8 maintenance by the look of it.</p> <p>9 MR. O'BRIEN: 10 Q. More maintenance, okay.</p> <p>11 MR. MACISAAC: 12 A. Fuel filter change.</p> <p>13 MR. O'BRIEN: 14 Q. Okay, and the forced outage on August 6th and 15 7th, do you know what that related to?</p> <p>16 MR. MACISAAC: 17 A. Yeah, that's a thermocouple bearing and it was 18 an instrument issue, it wasn't actually a 19 bearing issue.</p> <p>20 MR. O'BRIEN: 21 Q. Okay, and what do you mean by that?</p> <p>22 MR. MACISAAC: 23 A. So it was an instrumentation issue where they 24 went in and did a recalibration on the 25 instrument itself.</p>
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<p>1 Q. Yeah, okay, I assumed that.</p> <p>2 MR. MACISAAC: 3 A. So that was to run both, I think we did 4 initially the CAT which is for black starting 5 the, I'm going to say the 480 and then sol air 6 (phonetic) after that which is for the 4160. 7 So there's actually two additional generators 8 underneath the roof line, one for black 9 starting one system; another for black 10 starting the gas turbine itself.</p> <p>11 MR. O'BRIEN: 12 Q. Okay, and the July 3rd to 4th, there's another 13 scheduled outage, can we scroll down a little 14 bit more, Ms. Gray, if you could, black start 15 configuration. What did that deal with?</p> <p>16 MR. MACISAAC: 17 A. That's probably sol (phonetic) air, so the 18 first one is probably the CAT system and the 19 next one, so I should confirm it for you, but 20 -</p> <p>21 MR. O'BRIEN: 22 Q. Yeah, can you confirm that for me just to, I 23 assumed that was the case, but I ask for an 24 undertaking for that.</p> <p>25 MS. GLYNN:</p>	<p>1 MR. O'BRIEN: 2 Q. And what would cause that?</p> <p>3 MR. MACISAAC: 4 A. I'd have to check for you. I know there's a 5 report for it.</p> <p>6 MR. O'BRIEN: 7 Q. Oh is that--okay, all right.</p> <p>8 MR. MACISAAC: 9 A. So we can get that for you.</p> <p>10 MR. O'BRIEN: 11 Q. Can you get the report for us, okay. And the 12 last one there, the failed outage of fuel 13 bypass valve blockage, what was that related 14 to?</p> <p>15 MR. MACISAAC: 16 A. That was a link to--that speaks to the 17 sensitivity of the unit on some things, so 18 that was a fuel filter change where a piece of 19 the plastic on the cartridge for the fuel 20 filter actually was broken off and not 21 noticed, fell down inside the fuel line and 22 ended up causing a blockage and starved the 23 unit on fuel.</p> <p>24 MR. O'BRIEN: 25 Q. And this RFI goes to August 11th. I wonder if</p>

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1 you could give an undertaking just to update  
2 that RFI with any further scheduled outages or  
3 forced outages for the CT in this year?  
4 MR. MACISAAC:  
5 A. Sure, we could do that.  
6 MR. O'BRIEN:  
7 Q. Okay, and I'd ask you, because I did ask  
8 earlier of witnesses, does the fact that  
9 you've got a number of these outages and I'll  
10 focus on the forced outages, I guess, in the  
11 first year, does that cause you any concern  
12 from a reliability perspective of this  
13 particular unit going forward?  
14 MR. MACISAAC:  
15 A. So the unit has been reliable, it's planned in  
16 our system to be at 95 percent and year to  
17 date, it's within compliance of 95 percent  
18 reliability.  
19 MR. O'BRIEN:  
20 Q. So that's a "no"?  
21 MR. MACISAAC:  
22 A. Ask the question again, if you wouldn't mind.  
23 MR. O'BRIEN:  
24 Q. Okay, does it cause you any concern for  
25 reliability of this unit in the future, what

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1 the outages that you saw in the first year,  
2 performance -  
3 MR. MACISAAC:  
4 A. The performance of the unit thus far has been  
5 reliable.  
6 MR. O'BRIEN:  
7 Q. Performance, yes.  
8 MR. MACISAAC:  
9 A. So I wouldn't agree or disagree, I'm saying  
10 the statement is that the unit has been  
11 consistent with our plan in terms of its  
12 planned reliability.  
13 MR. O'BRIEN:  
14 Q. Okay, and I did only have one more question  
15 for you, Mr. MacIsaac and unfortunately I've  
16 got to revisit the TL267 line, I just wanted  
17 to get a clarification, you mentioned the  
18 involvement of SNC and I'm wondering, I'm not  
19 sure we were on the same wavelength as we were  
20 discussing that, so I just wanted to make  
21 sure.  
22 MR. MACISAAC:  
23 A. Sure.  
24 MR. O'BRIEN:  
25 Q. I got the impression that the work being done

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1 on this project, this capital project was  
2 going to be done by the Lower Churchill  
3 Project employees, who were formerly employees  
4 of Hydro and now going to be doing work for  
5 Hydro through their shared service, and I  
6 didn't get the connection as to where SNC fit  
7 in. Could you give me that?  
8 MR. MACISAAC:  
9 A. So a portion of the resources on the LTP  
10 (sic.) team are in fact contract engagement  
11 from SNC and that's why I took you there, that  
12 was the linkage that I was endeavouring to  
13 make. The project management of the project,  
14 I believe is being led by Kyle Tucker who in  
15 fact is a seconded resource from Hydro to the  
16 LCP team.  
17 MR. O'BRIEN:  
18 Q. So when you say "SNC", that's SNC Lavalin, is  
19 that who you are talking about and it's a  
20 contract engagement from them? What do you  
21 mean by that?  
22 MR. MACISAAC:  
23 A. So part of the resource that is inside of our  
24 team on Torbay Road, so it's a mixed team and  
25 the owners' representatives are folks from

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1 Hydro and that's augmented by contract  
2 resources from different entities, but I would  
3 say a good, or a healthy portion of them are  
4 folks that were successfully engaged at the  
5 front end through a RFP process and SNC was  
6 the successful entity in that RFP process.  
7 That was how I was tying it together for you,  
8 sorry if I made that unclear.  
9 MR. O'BRIEN:  
10 Q. No, that's fine. I have no further questions  
11 for Mr. MacIsaac.  
12 MS. GLYNN:  
13 Q. Mr. Chair, before we move on to Mr. Johnson, I  
14 just wanted to note there was two undertakings  
15 there, I'd like to put them on the record.  
16 From the RFI that's still there on the screen,  
17 there was an undertaking to provide the report  
18 for the August 6th and 7th outage and to  
19 update this RFI as well.  
20 CHAIRMAN:  
21 Q. Okay, Mr. Johnson.  
22 MR. MACISAAC:  
23 A. I thought there was a third.  
24 MR. O'BRIEN:  
25 Q. There was a third one too.

1 MS. PENNELL:  
 2 Q. Do you have the black start configuration.  
 3 MS. GLYNN:  
 4 Q. Okay, for July 3rd and 4th, that one was  
 5 already noted on the record.  
 6 MR. O'BRIEN:  
 7 Q. Yeah, okay, I thought it was noted.  
 8 MR JOHN MACISAAC, CROSS-EXAMINATION BY TOM JOHNSON, Q.C.  
 9 JOHNSON, Q.C.:  
 10 Q. Before I start on this, I've been meaning to  
 11 say this for several weeks now, Mr. Chairman,  
 12 Commissioners, and that is I think I'd be  
 13 remiss if I didn't say how useful the  
 14 transcript getting out in the evenings have  
 15 been and how punctual it's been and I didn't  
 16 want to just take that for granted. I know  
 17 it's a lot of hard work that goes into that  
 18 and I raise it because sometimes with the  
 19 undertakings you have to go through and read  
 20 them again, but I just want to say that it's  
 21 very much appreciated.  
 22 CHAIRMAN:  
 23 Q. Regulatory efficiency.  
 24 JOHNSON, Q.C.:  
 25 Q. Yes, indeed.

1 MR. DUMARESQUE:  
 2 Q. Could I ask for a point of clarification, Mr.  
 3 Chair?  
 4 CHAIRMAN:  
 5 Q. Sure.  
 6 MR. DUMARESQUE:  
 7 Q. On the undertaking for the update to the PR-  
 8 DD-NLH-012, if you could indicate if that will  
 9 be up to the end of October or is there a date  
 10 there, because I'm particularly concerned -  
 11 MR. O'BRIEN:  
 12 Q. Up to today, I would have thought.  
 13 MR. DUMARESQUE:  
 14 Q. Okay, because I know there's some maintenance  
 15 or something going on that I would like to  
 16 know, because sometimes they get done to a  
 17 certain date, so I'd like to get them up to  
 18 date, yeah.  
 19 MR. O'BRIEN:  
 20 Q. I would have thought up to today.  
 21 MS. GLYNN:  
 22 Q. That would be the undertaking, that's noted on  
 23 the record then.  
 24 MR. O'BRIEN:  
 25 Q. Couldn't ask for anything more than that, I

1 don't think.  
 2 MR. HAYES:  
 3 Q. And you wouldn't ask for anything less.  
 4 MR. O'BRIEN:  
 5 Q. I could ask for tomorrow.  
 6 CHAIRMAN:  
 7 Q. You could but you wouldn't get very far with  
 8 it.  
 9 MR. O'BRIEN:  
 10 Q. No, I didn't think so.  
 11 CHAIRMAN:  
 12 Q. Sir.  
 13 JOHNSON, Q.C.:  
 14 Q. Thank you. I just wanted to start off by  
 15 revisiting the allowance for the building, Mr.  
 16 MacIsaac and in that regard if I could direct  
 17 the attention to GTCA-NLH-005, I think it's  
 18 attachment number -  
 19 MS. GRAY:  
 20 Q. Could you say that again, Mr. Johnson?  
 21 JOHNSON, Q.C.:  
 22 Q. Yes, I'm sorry, GTCA-NLH-005, I think it's  
 23 attachment one. Yes, at page 2 of 2 on  
 24 attachment one, if you could scroll down a  
 25 little bit further, right. And here we're

1 seeing it described as a special condition No.  
 2 12 and Mr. MacIsaac, it says "The contractor  
 3 shall carry an 8 million dollar allowance to  
 4 provide a weathertight winter suitable  
 5 building envelop to house the CTG set and  
 6 balance the plan. The building shall be of  
 7 sufficient size to allow the safe and  
 8 ergonomic operation and maintenance of the CTG  
 9 and ancillary equipment. The building shall  
 10 be designed in accordance with the National  
 11 Building Code of Canada, National Fire Code,  
 12 National Plumbing Code, National and  
 13 Provincial Occupational Health and Safety and  
 14 would take into account and ambient and energy  
 15 efficient lighting." And can you advise us,  
 16 Mr. MacIsaac, how that 8 million dollar figure  
 17 was arrived at for this building, meeting  
 18 those specifications?  
 19 MR. MACISAAC:  
 20 A. So we originally built it based on means,  
 21 there is a standard used for estimating of  
 22 building construction and we also looked at  
 23 other projects that had been completed within  
 24 the province, but we didn't do any design  
 25 work. What we did was we said a building this

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<p>1 big, this high, so it was very coarse. So it 2 was intended to be an allowance for that 3 purpose that was intended to be 4 representative, but it would not have made 5 sense because it was going to be the building 6 and the unit and all the ancillaries that go 7 inside of it, are integral to one another. So 8 it would not have been a good use of our 9 engineering time to go beyond doing a means' 10 estimate. 11 JOHNSON, Q.C.: 12 Q. And in terms of that was the allowance that 13 was set aside for it, was there any, I guess 14 can you tell us what the ultimate figure ended 15 up being on the building? 16 MR. MACISAAC: 17 A. I'd have to get it for you, Mr. Johnson. I 18 know that the largest driver, in terms of the 19 variance is the building and I believe that 20 the building was 12 million and change, there 21 are contributing factors of a variance, but I 22 have it, I'll just find it for you. 23 JOHNSON, Q.C.: 24 Q. Okay. 25 MR. MACISAAC:</p>	<p>1 oversight of the work that was getting done by 2 the various contractors. And could you give 3 us a sense of the number of people that would 4 have been involved in that process, you know, 5 what positions they would held; what they 6 would have been doing on behalf of the owner 7 on the site? 8 MR. MACISAAC: 9 A. Sure, I think we have an RFI in that space 10 that speaks to the owner's team and the 11 consultant costs. Do you know which one that 12 is, Jenny? I can speak to it in general terms 13 while Jenny looks it up. So, our on-site team 14 would have been made up of OSR, On-Site 15 Representatives, sorry, and in addition to 16 that we would have had our project management 17 team which was a combination of the lead 18 project manager, plus discipline leads for 19 mechanical/electrical. Our technical support 20 folks would have been in and out. At any one 21 point in time there would have been inputs 22 from our environment team, our safety team. 23 We also had on a high level, oversight from an 24 external resource, a contract resource that we 25 brought in to varying oversight and review to</p>
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<p>1 A. Jenny, we've answered that question, where we 2 speak to the variance? 3 MS. GRAY: 4 Q. (Inaudible). 5 JOHNSON, Q.C.: 6 Q. You're working on it. 7 MR. MACISAAC: 8 A. Yes. I'll look for it. 9 JOHNSON, Q.C.: 10 Q. Perhaps what we could do just to speed it 11 along is if you could just take a look this 12 evening and come back with the figure and the 13 reference for it, in the morning, I think that 14 would be sufficient for my purposes at this 15 time. 16 MR. MACISAAC: 17 A. Thanks so that, I appreciate it. 18 JOHNSON, Q.C.: 19 Q. Not a problem. I just want to touch on-- 20 there's been certainly a lot of ground covered 21 by Ms. Greene and Mr. O'Brien this morning, 22 but I want to touch on the team that had been 23 assigned from Hydro or from your department, 24 anybody who be on behalf of the owner who was 25 assigned to this project, in terms of the</p>	<p>1 our project management team, more or less, a 2 functional coach, who was an experienced 3 project manager from outside the Province. 4 JOHNSON, Q.C.: 5 Q. Okay. What firm was that? 6 MR. MACISAAC: 7 A. Ricotta was the name of the firm. 8 JOHNSON, Q.C.: 9 Q. Okay. How many people did they have on site? 10 MR. MACISAAC: 11 A. They had one person on site and he would have 12 been here two weeks out of four on an ongoing 13 basis. I have a listing here if you would 14 like me to read down through. So, there is 15 environmental services, there's our system 16 planning folks, there's our own operation's 17 team, our own safety people, project execution 18 and technical services. On an ongoing basis 19 there was touch points once we get into the 20 commissioning stage with our energy control 21 centre and we also had folks from transmission 22 and rural operations, TRO. 23 JOHNSON, Q.C.: 24 Q. And who were the key people placed on the site 25 from the point of view of tracking the costs?</p>

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1 MR. MACISAAC:  
 2 A. So our project management folks and the  
 3 supporting folks that were in administration  
 4 back at Hydro Place.  
 5 JOHNSON, Q.C.:  
 6 Q. And how were they expected to be tracking  
 7 these costs? I guess what we're getting at is  
 8 we've gotten evidence that there was a  
 9 surprise that came around in March of 2015 and  
 10 what protections had been put in place to try  
 11 to minimize the type of surprise that we ended  
 12 up -  
 13 MR. MACISAAC:  
 14 A. I'd call it a variance, a request in the  
 15 context of the building allowance being over  
 16 and requesting a variance and being in a place  
 17 where, on an ongoing basis, we're looking at  
 18 the invoicing that we're receiving from the  
 19 primary contractor, being ProEnergy and we  
 20 were measuring the work against the milestones  
 21 that they had in place in their contract and  
 22 negating of payment was based on achievement  
 23 of milestones, so we would do on an ongoing  
 24 basis our own cold eyes review of what they  
 25 would petition us for payment and measure

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1 against work completed.  
 2 JOHNSON, Q.C.:  
 3 Q. And how frequently was that process that you  
 4 described taking place, in terms of looking at  
 5 where they were in terms of, you know,  
 6 building et cetera, to what they had  
 7 completed?  
 8 MR. MACISAAC:  
 9 A. On an ongoing basis.  
 10 JOHNSON, Q.C.:  
 11 Q. And ongoing, is that like weekly or -  
 12 MR. MACISAAC:  
 13 A. Yeah.  
 14 JOHNSON, Q.C.:  
 15 Q. Every week?  
 16 MR. MACISAAC:  
 17 A. Yeah. We had a permanent team at site on an  
 18 ongoing basis. They were responsible for  
 19 providing oversight on the execution of the  
 20 work and they also reconciled all of the  
 21 invoicing that we received from ProEnergy.  
 22 JOHNSON, Q.C.:  
 23 Q. So would they have actually had offices on  
 24 site established?  
 25 MR. MACISAAC:

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1 A. That's correct, yes, we worked out of site  
 2 trailers.  
 3 (1:15 p.m.)  
 4 JOHNSON, Q.C.:  
 5 Q. And were these--how frequently were you  
 6 receiving reports as to how costs were  
 7 tracking and versus, you know, where they were  
 8 in terms of what they were supposed to be  
 9 delivering in terms of where they were in the  
 10 project?  
 11 MR. MACISAAC:  
 12 A. We were submitting to the PUB every other  
 13 week, we were providing updates.  
 14 JOHNSON, Q.C.:  
 15 Q. So that was coming to you every week?  
 16 MR. MACISAAC:  
 17 A. I was seeing the updates and meeting with our  
 18 project team with them on an ongoing basis and  
 19 we were submitting reports to the PUB every  
 20 other week.  
 21 JOHNSON, Q.C.:  
 22 Q. And who is responsible or what persons are  
 23 responsible for the face-to-face engagement  
 24 with the contractor on the site, as to, you  
 25 know, potential monetary issues and costs that

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1 might be tracking higher than the owner would  
 2 expect? Is there certain people assigned to  
 3 that task of dialoguing -  
 4 MR. MACISAAC:  
 5 A. Our project manager at site.  
 6 JOHNSON, Q.C.:  
 7 Q. That would be the project manager.  
 8 MR. MACISAAC:  
 9 A. Yes.  
 10 JOHNSON, Q.C.:  
 11 Q. And I take it that the project manager  
 12 likewise didn't report anything, didn't report  
 13 anything to you about this potential problem  
 14 on costs prior to the owner directly making--  
 15 or the contractors directly raising the issue  
 16 in March?  
 17 MR. MACISAAC:  
 18 A. Up until March, the invoicing that we were  
 19 receiving was as anticipated. And that  
 20 doesn't mean that at certain points in time  
 21 that we didn't challenge on issues that were  
 22 submitted for payment and it doesn't mean that  
 23 at certain points in time we disagreed with  
 24 what was submitted and we did on more than one  
 25 occasion, right? So on an ongoing basis,

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1 there was a very healthy review of what was  
 2 being submitted.  
 3 JOHNSON, Q.C.:  
 4 Q. What's the reason, I guess now you're in a  
 5 position to look back at the quality of the  
 6 invoices that you were receiving and the  
 7 quality of the process that you were following  
 8 and have you been able to draw any insights  
 9 from that as to how it could have been  
 10 improved?  
 11 MR. MACISAAC:  
 12 A. So timeliness of invoicing from the contractor  
 13 in the event that he had anticipated any  
 14 extras and on an ongoing basis, we did  
 15 petition the contractor. It is inside of our  
 16 regular meeting minutes where we petitioned  
 17 them on cost and asked them if there's extras,  
 18 so I guess the reality is in terms of the  
 19 January, February, March timeframe, I think  
 20 the contractor became fixated on delivering  
 21 the project and he put his invoicing or his  
 22 exposure of growing variance on the building,  
 23 on the back burner in lieu of finishing the  
 24 building and finishing the project in general.  
 25 JOHNSON, Q.C.:

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1 Q. So in terms of putting those invoices on the  
 2 back burner because of work that had to be  
 3 done, et cetera, to what degree did the  
 4 invoices get behind, say?  
 5 MR. MACISAAC:  
 6 A. It wasn't that the invoices stopped  
 7 altogether, I think that their prioritization,  
 8 the issue about what they sensed as their  
 9 growing exposure on the building cost for them  
 10 was secondary and they put it behind and  
 11 focussed on finishing the project and getting  
 12 us to a place where the gas turbine was  
 13 synchronized to the grid and went into  
 14 service. And thereafter, in March, in the  
 15 back half of March, they came to the  
 16 realization our costs are out of line here on  
 17 the building and we need to get back with the  
 18 owner and talk to them about what our exposure  
 19 is from a building cost. Because when I asked  
 20 them the same question, their message was, to  
 21 ourselves, they had prioritized getting us to  
 22 a point where the gas turbine went into  
 23 service because we did ask the question, and  
 24 they said, you know, they'd do it again was  
 25 their honest response where they prioritized

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1 getting the unit in service for us and deal  
 2 with the back end being the variance on the  
 3 building costs. So, although we were looking  
 4 for a different response inside of that, they-  
 5 -and it's a different breed, right, when  
 6 you're dealing with contractors. Some of them  
 7 are, you know, more pro-active than others on  
 8 bringing forward exposures. Others focus on,  
 9 we'll finish the work first, satisfy the  
 10 customer that way and then we'll talk about  
 11 the outcomes, if there are variances. And my  
 12 first question of them was, you know, had you  
 13 come in under, was it your intention to come  
 14 back and provide us the extra dollars back and  
 15 why then are you petitioning us now, at the  
 16 end, after the work is done, for costs being  
 17 over. And when we sat down and did the hard  
 18 scrub with Revay and we looked at the  
 19 interests of the customer, we got to a place  
 20 where, after doing the scrub, Revay's  
 21 assessment was, inside of going to some sort  
 22 of alternate dispute mechanism, that the  
 23 probabilization of outcome is anyone's best  
 24 guess, but they said, you know, if you're in  
 25 front of an arbitrator or a mediator, these

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1 are the potential outcomes and they looked at  
 2 the merits of portions of the claim. They  
 3 provided us a recommendation and we also  
 4 looked at what we felt was fair and reasonable  
 5 and that's how we landed where we're at.  
 6 JOHNSON, Q.C.:  
 7 Q. So what aspect of the controls that the owner  
 8 had in place were deficient in the sense of,  
 9 because we know what ended up happening and we  
 10 ended up, or the owner ended up with a  
 11 circumstance that it did not wish to see, in  
 12 terms of being presented with extra costs. So  
 13 I guess what I'm asking now is, what aspects  
 14 of the owner's control mechanisms, for the  
 15 want of a better word, were wanting?  
 16 MR. MACISAAC:  
 17 A. I understand your question, so what's the  
 18 process improvement opportunity and when we  
 19 look at it, what we can do is petition the  
 20 contractor harder and say, you know, he'd be  
 21 even more deliberate inside of those weekly  
 22 touch points where we say, you know, any extra  
 23 scope, you know, talk to us now in real time  
 24 and don't leave it until the end because we'll  
 25 then end up in a place where we're both

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1 disappointed and I had this conversation with  
 2 ProEnergy at the very beginning where I said  
 3 to them and they even replayed it for me, what  
 4 I said to them was worse possible outcome, we  
 5 do a really really good job together and we  
 6 get down to the end and we disagree on what  
 7 we're going to pay you for the job, I said  
 8 worse possible outcome because you go away  
 9 dissatisfied and we go away dissatisfied and  
 10 we were very deliberate with them, right from  
 11 the outset in that space. And their CEO would  
 12 say that I said those exact words to them and  
 13 his response to me was, "I'd do it again." So  
 14 some folks, you can help and other folks have  
 15 a tried and true business model that they  
 16 follow and we were very deliberate with them  
 17 all the way through and when we got down to  
 18 the end and claims do happen on large jobs and  
 19 they recognized that in petitioning us on a  
 20 variance, they were going to take it up and  
 21 when we sat with Revay and we looked at the  
 22 potential outcomes and they're very good,  
 23 they're probably the best in Canada at dispute  
 24 reconciliation and they reviewed the file and  
 25 agreed with us in terms of what we thought was

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1 fair and reasonable.  
 2 JOHNSON, Q.C.:  
 3 Q. So contractually, I guess was there any  
 4 contractual provision that the owner could  
 5 rely on to say, hold on now, you didn't bring  
 6 this up on a more timely basis; and therefore,  
 7 you know, there has to be a consequence to  
 8 that?  
 9 MR. MACISAAC:  
 10 A. And we had that conversation with them too and  
 11 being in your profession, you know that that's  
 12 fine to say those things, but when you end up  
 13 in court and you're either going to go through  
 14 some form of arbitration or mediation or  
 15 actually in the courts as well, you may end up  
 16 being more exposed. So I bring you back up to  
 17 a higher level for a minute and indulge me,  
 18 what we're talking about is a 10 million  
 19 dollar variance on 119, we're in at 8.5  
 20 percent, as a percentage, on a large-scale  
 21 project that we delivered inside a very  
 22 aggressive timeline. I still believe and, you  
 23 know, I might be the only one in the room that  
 24 feels this way, but I still believe that  
 25 customers got very good value for money.

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1 JOHNSON, Q.C.:  
 2 Q. Okay.  
 3 MR. MACISAAC:  
 4 A. Lowest cost solution and 25 percent more in  
 5 terms of dollars per kilowatt for the next  
 6 closest offer.  
 7 JOHNSON, Q.C.:  
 8 Q. I think we're close enough, Mr. Chairman.  
 9 CHAIRMAN:  
 10 Q. Okay, tomorrow morning.  
 11 Upon conclusion at 1:25 p.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 4th 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 4th day of November, A.D., 2015  
 12 Judy Moss

<p><b>-\$-</b></p> <p><b>\$1,000.00</b> [1] 44:22 <b>\$10,500,400.00</b> [1] 166:14 <b>\$762,000.00</b> [1] 49:7</p> <hr/> <p><b>-&amp;-</b></p> <p><b>&amp;</b> [2] 30:5 175:23</p> <hr/> <p><b>---</b></p> <p><b>-and</b> [1] 211:5</p> <hr/> <p><b>-1-</b></p> <p><b>1</b> [5] 34:3 49:9,11 70:15 108:15 <b>1.26</b> [1] 49:5 <b>1.5</b> [1] 50:19 <b>10</b> [9] 14:22 15:12 16:3 19:25 20:18 22:1 39:25 45:21 214:18 <b>10.5</b> [2] 27:3 32:1 <b>100</b> [9] 26:24 99:12,17 123:16 136:14,17,19 137:14 183:14 <b>10:00</b> [1] 46:1 <b>10:15</b> [1] 61:8 <b>10:30</b> [1] 78:25 <b>10:45</b> [1] 94:11 <b>10:59</b> [1] 108:4 <b>10th</b> [2] 157:3,8 <b>11</b> [2] 157:9 185:9 <b>11.4</b> [1] 185:10 <b>111</b> [2] 15:24 45:15 <b>115</b> [3] 16:4 45:22,25 <b>119</b> [10] 11:8 15:11 21:25 22:19 25:16 26:25 44:21 45:1 46:10 214:19 <b>11:36</b> [1] 108:5 <b>11:45</b> [1] 116:13 <b>11th</b> [1] 192:25 <b>12</b> [2] 200:2 201:20 <b>12.8</b> [2] 49:10 50:10 <b>120</b> [3] 147:5 148:1,18 <b>123</b> [1] 123:16 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