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1 (9:06 a.m.)
 2 CHAIRMAN:
 3 Q. Good morning. Are there any preliminary
 4 matters first?
 5 MS. GLYNN:
 6 Q. No, Mr. Chair.
 7 CHAIRMAN:
 8 Q. So I believe we're over to Madam Greene. Is
 9 that correct?
 10 GREENE, Q.C.:
 11 Q. Yes, good morning, Mr. Chair, Commissioners.
 12 We have the panel here from the Liberty
 13 Consulting Group and they are ready to be
 14 sworn.
 15 CHAIRMAN:
 16 Q. Okay. I guess we'll start with you, sir. Can
 17 I have your name, please, so I can -- I
 18 haven't got all the faces and names
 19 identified.
 20 MR. MAZZINI:
 21 A. Richard Mazzini.
 22 CHAIRMAN:
 23 Q. Okay.
 24 MR. RICHARD MAZZINI, SWORN
 25 CHAIRMAN:

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1 Q. And I presume next to you is Mr. Antonuk? Is
 2 that correct, sir?
 3 MR. ANTONUK:
 4 A. Yes.
 5 MR. JOHN ANTONUK, SWORN
 6 CHAIRMAN:
 7 Q. Okay, and Mr. Lautenschlager, have I got that
 8 right?
 9 MR. LAUTENSCHLAGER:
 10 A. That's right exactly.
 11 MR. MARK LAUTENSCHLAGER, SWORN
 12 CHAIRMAN:
 13 Q. And Mr. Vickroy, is that correct, sir?
 14 MR. VICKROY:
 15 A. Yes.
 16 MR. RANDELL VICKROY, SWORN
 17 CHAIRMAN:
 18 Q. Madam, you're on.
 19 EXAMINATION-IN-CHIEF BY MAUREEN GREENE, Q.C.
 20 GREENE, Q.C.:
 21 Q. Thank you, Mr. Chair. Good morning,
 22 gentlemen. I would like to begin by asking
 23 each of you to outline a little bit about your
 24 academic background and your work experience
 25 as it related to the matters that you

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1 considered and reported on in your prudence
 2 review report dated July 6th, 2015. If I
 3 could begin with Mr. Antonuk first? Mr.
 4 Antonuk, what is your role with the Liberty
 5 Consulting Group?
 6 MR. ANTONUK:
 7 A. I was one of Liberty's three founders more
 8 than 25 years ago and for about the last 20
 9 years, I've served as the firm's president.
 10 GREENE, Q.C.:
 11 Q. And what was your participation in the review
 12 that led to Liberty's prudent report?
 13 MR. ANTONUK:
 14 A. I managed the team that performed the review.
 15 I established the criteria that we used to
 16 review and determine prudence. I worked very
 17 closely with the team as we developed data and
 18 explored hypotheses and formed conclusions in
 19 each of the areas that we were reviewing and
 20 my role involved me in extensive interaction
 21 with Hydro management on the issues and in
 22 review of the large amounts of documentation
 23 that we used to form our conclusions.
 24 GREENE, Q.C.:
 25 Q. Could you please outline your academic

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1 background and highlight your work experience
 2 as it relates to the work that you undertook
 3 for your prudence review with respect to
 4 Hydro?
 5 MR. ANTONUK:
 6 A. I'm an Honours graduate of Dickinson College
 7 in the Dickinson School of Law and I began my
 8 career first as a civil law investigator for
 9 the Pennsylvania Attorney General. I later
 10 moved to the Pennsylvania Public Utility
 11 Commission where I served as an assistant
 12 counsel, focusing a significant part of my
 13 time in dealing with prudence proceedings
 14 before the Commission. I then moved to the
 15 regulatory affairs department in which I was a
 16 manager at a large northeast US utility,
 17 electric utility company, Pennsylvania Power
 18 and Light.
 19 I left the practice of law in 1981 to
 20 focus on utility management and operations. I
 21 began with a consulting firm specializing in
 22 major construction projects, primarily
 23 focusing on prudence. I examined prudence at
 24 a number of large US nuclear power plants
 25 under construction, did prudence work

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1 associated with an interstate pipeline, with
 2 coal and energy procurement and also with a
 3 major utility and other public works
 4 improvement projects in the north slope of
 5 Alaska.

6 While with Liberty, I have basically
 7 managed several hundred projects probably by
 8 now, very many of which have focused on
 9 utility management and operations.
 10 Specifically, I've managed more than 20
 11 engagements that have looked at the quality of
 12 utility management and operations of
 13 generation, transmission, distribution and
 14 customer service facilities, equipment and
 15 organizations. Quite a number of those have
 16 involved prudence reviews. Probably the most
 17 significant one in this context is the work I
 18 did following a series of substation fires
 19 that caused major outages in the metropolitan
 20 Chicago region. The aftermath of those
 21 outages was a more than one billion dollar
 22 catch-up program that involved installation
 23 and maintenance and repair work that had been
 24 deferred for many years.

25 I've also performed a number of recent

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1 projects for the Nova Scotia Utility and
 2 Review Board addressing both outages and
 3 prudence.

4 GREENE, Q.C.:
 5 Q. Have you given expert evidence in other
 6 jurisdictions?
 7 MR. ANTONUK:
 8 A. Yes. I've testified in I believe it's 15 US
 9 jurisdictions on utility -- a wide range of
 10 utility matters involving electricity, natural
 11 gas and telecommunications. I've also
 12 testified before the Nova Scotia Utility and
 13 Review Board on a number of occasions
 14 involving prudence and other forms of reviews.
 15 And in addition to testifying, I served as an
 16 arbitrator for a large number of utility
 17 commissions in the US Rocky Mountain and
 18 Pacific Northwest region and those cases were
 19 designed to -- or what I was asked to do is
 20 resolve a series of complex pricing and
 21 technical disputes associated with requests by
 22 competitors to gain access to the
 23 telecommunications networks of the incumbent
 24 providers as part of a national program in the
 25 United States to foster increased competition

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1 and local exchange service.
 2 GREENE, Q.C.:
 3 Q. Thank you, Mr. Antonuk. I'd like now to move
 4 to Mr. Mazzini. Mr. Mazzini, what is your
 5 role with the Liberty Consulting Group?
 6 MR. MAZZINI:
 7 A. I've been an independent -- I'm an independent
 8 consultant. I've worked with the Liberty
 9 Group for about eight years now. I've served
 10 as project manager and lead consultant on a
 11 number of Liberty projects.
 12 GREENE, Q.C.:
 13 Q. And what was the scope of your involvement in
 14 the prudence review here?
 15 MR. MAZZINI:
 16 A. In the prudence review, I looked at six
 17 projects relating to the area of power supply
 18 generation and system planning.
 19 GREENE, Q.C.:
 20 Q. Could you please outline your academic
 21 background and highlight your work experience
 22 as it related to the work you did for this
 23 prudence review?
 24 MR. MAZZINI:
 25 A. Yes. I have more than 40 years of experience

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1 in the utility industry. I began with 28
 2 years as a manager in a large electric
 3 utility. My career started in the nuclear
 4 business where I was involved with the initial
 5 design, licensing, engineering and
 6 construction of a nuclear plant, subsequently
 7 operations. I then moved into corporate
 8 management where I was responsible for various
 9 corporate improvement, performance improvement
 10 programs and finally, before I left the
 11 utility, I managed several large departments,
 12 including the rates department, system
 13 operations and the bulk power marketing
 14 organization.

15 I've been in the consulting business for
 16 20 years now and have served clients in the
 17 US, most of the Canadian provinces, as well as
 18 Europe and the Caribbean. My specialties have
 19 been in utility operations, generation,
 20 planning, transmission, distribution and
 21 construction. I am a specialist in project
 22 and cost management and I've performed many
 23 performance audits of management through the
 24 years.
 25 I have a Bachelor's degree in electrical

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1 engineering, a Master's degree in nuclear
 2 engineering and I've a member of the American
 3 Nuclear Society and the Institute of
 4 Electrical and Electronic Engineers.
 5 GREENE, Q.C.:
 6 Q. Okay. Mr. Mazzini, have you given evidence,
 7 expert evidence, in other jurisdictions?
 8 MR. MAZZINI:
 9 A. Yes. I've testified before commissions in
 10 five states on multiple occasions and also in
 11 the Province of Nova Scotia.
 12 GREENE, Q.C.:
 13 Q. Thank you, Mr. Mazzini. Now, Mr.
 14 Lautenschlager, what is your role with the
 15 Liberty Consulting Group?
 16 MR. LAUTENSCHLAGER:
 17 A. I'm a consultant for Liberty specializing in
 18 electric utility operations, maintenance and
 19 reliability practices.
 20 GREENE, Q.C.:
 21 Q. And what was your involvement in the prudence
 22 review?
 23 MR. LAUTENSCHLAGER:
 24 A. I reviewed the transmission system issues, as
 25 well as Labrador City projects.

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1 GREENE, Q.C.:
 2 Q. Could you please outline your academic
 3 background and your work experience as it
 4 related to the work that you did leading to
 5 the prudence review report?
 6 MR. LAUTENSCHLAGER:
 7 A. I have a Bachelor's degree in electrical
 8 engineering and I have 46 years of experience
 9 in the electric power industry. Early in my
 10 career I worked as a substation maintenance
 11 engineer and relay engineer for American
 12 Electric Power. I then moved on to design,
 13 build and commission 400 kV substations in
 14 Iran back in the 1970s. My work at AEP and in
 15 Iran included commissioning and maintaining
 16 air blast circuit breakers identical to the
 17 ones here in Newfoundland.
 18 I then spent 20 years as vice-president
 19 of the High Voltage Maintenance Corporation in
 20 the midwest US, consulting with clients about
 21 their electrical maintenance programs and
 22 supervising our technicians conducting
 23 electrical equipment maintenance work for
 24 several large utilities and for smaller -- for
 25 numerous smaller municipal and rural electric

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1 utilities. Many of my clients were large
 2 industries, such as GM Chrysler, Ford, Eli
 3 Lilly, Honda and Alcoa.
 4 While at HVM, I was active in developing
 5 and improving on acceptance and maintenance
 6 testing specifications for electric power
 7 equipment for the International Electrical
 8 Testing Association called NIETA, and as well,
 9 as for the American National Standards
 10 Institute. I was president of NIETA in 1997
 11 to 1998.
 12 Since 2000, I've been an independent
 13 consultant focused on teaching electrical
 14 testing and maintenance and power equipment
 15 failure analysis, designing and preventing
 16 maintenance programs, investigating electric
 17 power equipment failures, commissioning
 18 substations, and evaluating operations,
 19 maintenance and reliability practices for over
 20 a dozen electric utilities, including Pepco in
 21 Washington DC, Con Ed in Chicago, Ameren in
 22 Illinois, Georgia Power, Alabama Power, the
 23 Maine utilities and Nova Scotia. These
 24 evaluations including evaluating maintenance
 25 and reliability programs and rates of

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1 completion for preventative maintenance and
 2 corrective maintenance work.
 3 During my career, I authored about 26
 4 articles related to electrical power
 5 maintenance and forensic investigations.
 6 (9:15 a.m.)
 7 GREENE, Q.C.:
 8 Q. Have you given expert evidence in other
 9 jurisdictions?
 10 MR. LAUTENSCHLAGER:
 11 A. I recently testified in New York City before
 12 the International Congress Commission in an
 13 arbitration concerning a 20 million dollar
 14 fire in Iceland for Alcoa, had to do with a
 15 transformer fire and a cable failure. I also
 16 testified before the Texas Public Utility
 17 Commission about some transmission line
 18 issues.
 19 GREENE, Q.C.:
 20 Q. Thank you. Turning now to Mr. Vickroy. Mr.
 21 Vickroy, what is your role with the Liberty
 22 Consulting Group?
 23 MR. VICKROY:
 24 A. Yes. My role with Liberty is to provide
 25 consulting advice with regard to utility

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1 industry treasury, financial, business
 2 financial planning and rates issues.
 3 GREENE, Q.C.:
 4 Q. What was your role in the prudence review work
 5 done by Liberty for this proceeding?
 6 MR. VICKROY:
 7 A. The scope was I requested and compiled
 8 financial information regarding the nine
 9 projects that Liberty reviewed as part of the
 10 prudence review. I've also reviewed, analyzed
 11 and made recommendations regarding other
 12 operating expenses that may not have been
 13 occurred in the absence of the outages.
 14 GREENE, Q.C.:
 15 Q. Could you please outline your academic
 16 background and your work experience as it
 17 related to the work for this project?
 18 MR. VICKROY:
 19 A. Yes. Academics, I graduated from Monmouth
 20 College in Illinois with a Bachelor of Arts in
 21 Business Administration and I also received a
 22 Masters of Business Administration from the
 23 University of Denver, with an emphasis in
 24 finance. I was then employed following the
 25 education by Public Service Company of Colorado

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1 for 12 years. That company is now part of
 2 Excel Energy. And I was a manager in a number
 3 of areas, including corporate finance,
 4 financial planning, treasury, economic
 5 analysis and rates and budgeting.
 6 Following working for the company, I've
 7 stayed in the utility industry and for more
 8 than 20 years, I've been a management
 9 consultant in the electric, gas and telephone
 10 businesses, primarily for Liberty Consulting
 11 Group, and for Liberty, I've been responsible
 12 for a wide range of issues that are financial
 13 planning, rate and utility business issue
 14 involved. One of the projects which was
 15 mentioned by Mr. Antonuk was a large prudence
 16 review in Illinois for electric expenditures
 17 of more than one billion dollars.
 18 GREENE, Q.C.:
 19 Q. Mr. Vickroy, have you given expert evidence in
 20 other jurisdictions?
 21 MR. VICKROY:
 22 A. Yes, I've given expert evidence in several
 23 states in the United States and in Nova Scotia
 24 in Canada.
 25 GREENE, Q.C.:

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1 Q. Mr. Chair, at this time I would like to
 2 distribute as an exhibit the resumes for the
 3 four gentlemen from the Liberty Consulting
 4 Group. The resumes were circulated to the
 5 parties last week. The resumes contain more
 6 detail than was just reviewed by the witnesses
 7 at this time.
 8 MS. GLYNN:
 9 Q. We'll mark that as Exhibit 4.
 10 GREENE, Q.C.:
 11 Q. Thank you. Mr. Lautenschlager, I understand
 12 there's one change you would like to make to
 13 your resume. Is that correct?
 14 MR. LAUTENSCHLAGER:
 15 A. Yes, that's right. On the CV it indicates I'm
 16 a professional engineer licensed in Florida,
 17 Indiana and Pennsylvania. I've since
 18 withdrawn my Pennsylvania license because I
 19 really didn't need it, so that's incorrect on
 20 that CV.
 21 GREENE, Q.C.:
 22 Q. And that's the only change that needs to be
 23 made to the resumes? Is that correct,
 24 gentlemen?
 25 MR. VICKROY:

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1 A. Yes.
 2 MR. MAZZINI:
 3 A. Yes.
 4 MR. ANTONUK:
 5 A. Yes.
 6 MR. LAUTENSCHLAGER:
 7 A. Yes.
 8 GREENE, Q.C.:
 9 Q. Okay. I'd like now to talk about the scope of
 10 your engagement. Mr. Antonuk, when were you
 11 retained by the Board for this prudence review
 12 and what were you asked to do?
 13 MR. ANTONUK:
 14 A. We began in February of this year a review of
 15 the prudence of Hydro's actions and decisions
 16 associated with nine specific projects. They
 17 included black start at Holyrood, the recently
 18 installed combustion turbine at Holyrood, the
 19 January 2013 failure of Holyrood Unit One,
 20 replacements and repairs at Sunnyside
 21 following the incidents of January 2014,
 22 similarly replacements at Western Avalon
 23 following those incidents, the reasons for
 24 increased capacity related supply costs
 25 following recent outages, refurbishment of the

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1 Holyhood forced draft fan motor, the 2012
 2 Black Tickle fire and the expansion of the
 3 Labrador City terminal stations.
 4 We also examined the degree to which 2014
 5 actual costs and one-time 2015 operation and
 6 maintenance costs could have been avoided in
 7 the absence of any imprudence that we might
 8 have found in reviewing the preceding nine
 9 projects.
 10 GREENE, Q.C.:
 11 Q. How did you carry out the work necessary to
 12 allow you to provide your opinion?
 13 MR. ANTONUK:
 14 A. We began by clearly establishing the standards
 15 by which we would evaluate prudence in the
 16 nine projects we examined. We reviewed the
 17 extensive factual information already in our
 18 possession gathered during work we had
 19 previously performed associated with the
 20 outages. We determined what additional
 21 information we would need to make our
 22 preliminary assessment of performance. We
 23 secured that information through an extensive
 24 set of RFIs to Hydro, an opening session at
 25 which we discussed the nine items with Hydro

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1 management and through reviews of extensive
 2 documentation that Hydro possessed as part of
 3 its normal documentation and record keeping
 4 associated with the projects.
 5 We used that information to develop
 6 hypotheses about how actions and decisions
 7 drove or might have driven results and we
 8 examined actual cost performance to determine
 9 where some portion of costs might have been
 10 avoided had different actions been undertaken.
 11 We continued to examine those hypotheses
 12 through continuing RFIs, qualitative data sets
 13 under development and continuing interaction
 14 with management. As we narrowed those
 15 hypotheses to those that continued to raise
 16 issues of concern, we continued to expand and
 17 refine our cost data.
 18 After gathering all of the information
 19 bearing on the scope of our study, we engaged
 20 in extensive team discussions about the
 21 quality of decisions and actions that drove
 22 performance in each of the nine projects,
 23 eventually reaching conclusions about
 24 prudence. Where we found some of those actions
 25 or decisions imprudent, we then analyzed the

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1 cost consequences of that imprudence and
 2 measured them.
 3 With respect to the 2014 costs, we then
 4 identified, based on our prudence conclusions,
 5 those that we believe would not have been
 6 incurred had there not been imprudence in the
 7 areas where we found it.
 8 Discussions with Hydro in connection with
 9 those 2014 costs confirmed our going-in
 10 observation that it would be impracticable to
 11 sort our avoidable costs according to Hydro's
 12 hybrid, and by hybrid I mean partially
 13 actual/partially estimated 2014 costs. We
 14 therefore decided to express all of our
 15 findings about 2014 avoidable costs on the
 16 basis of full-year actual costs, rather than
 17 Hydro's hybrid approach.
 18 With respect to the 2015 costs, our
 19 conclusions about the inappropriateness of
 20 maintenance deferrals led directly to the
 21 conclusion that all of the 2015 costs at issue
 22 were in fact avoidable.
 23 GREENE, Q.C.:
 24 Q. Now you mentioned that you began by first
 25 establishing standards to use in your work.

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1 What were the standards or tests you did apply
 2 in determining or concluding whether a project
 3 was prudent or imprudent?
 4 MR. ANTONUK:
 5 A. We developed a prudence standard that was
 6 documented in the March 2015 terms of
 7 reference document. That document underwent
 8 stakeholder review at about the time we were -
 9 - or early in the commencement of our work.
 10 It's core characteristics call for judging the
 11 quality of management performance based upon
 12 what is known and equally importantly, what
 13 was knowable at the time decisions were made
 14 and actions were undertaken.
 15 That standard limits findings of
 16 imprudence to those actions or decisions that
 17 are outside the range of reasonable
 18 alternatives available at those times.
 19 GREENE, Q.C.:
 20 Q. And is the standard that you've just outlined
 21 that you used consistent with other prudence
 22 review work that Liberty has done?
 23 MR. ANTONUK:
 24 A. It is. That work that Liberty has done has
 25 taken place in a number of US jurisdictions

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1 and very recently in work in Nova Scotia as
 2 well. The standard was informed by broad
 3 reviews of prudence, the prudence standard, as
 4 applied across North America by regulatory
 5 commissions and by Courts up to and including,
 6 at the time, the US Supreme Court.
 7 GREENE, Q.C.:
 8 Q. Turning now to the specific projects, I'd like
 9 to begin with Mr. Mazzini. Mr. Mazzini, what
 10 were the specific projects that you reviewed?
 11 MR. MAZZINI:
 12 A. Of the nine projects, Mr. Antonuk just
 13 described, I reviewed six of those. The first
 14 two were the black start project and the unit
 15 one turbine failure of 2013. I concluded
 16 imprudence on the part of Hydro in both of
 17 those projects. In addition, I reviewed the
 18 supply related costs from 2014, the new
 19 combustion turbine project, the Black Tickle
 20 fire and the unit three FD fan motor project.
 21 I found no reason to conclude any imprudence
 22 in any of those four projects.
 23 In addition to those projects, I also
 24 prepared one estimate for disallowance that
 25 was associated with the Holyrood breaker

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1 failure in 2014 and that was a finding of
 2 imprudence that was prepared by Mr.
 3 Lautenschlager.
 4 GREENE, Q.C.:
 5 Q. Were you also involved in preparing Liberty's
 6 interim April 2014 report and its final
 7 December 2014 report in the investigation?
 8 MR. MAZZINI:
 9 A. Yes. I've been involved in all the Liberty
 10 reports that have been prepared here over the
 11 last year and a half and I've been responsible
 12 for the portions of those reports associated
 13 with generation, system planning and system
 14 operations.
 15 GREENE, Q.C.:
 16 Q. Were you involved in Liberty's October 2015
 17 report on the March 4th, 2015 outage and what
 18 was your role?
 19 MR. MAZZINI:
 20 A. Yes, I was. I was the lead consultant looking
 21 into the March 4th incident and I was the
 22 principal author of that report.
 23 GREENE, Q.C.:
 24 Q. Okay. If we could now look at the two
 25 projects that in your opinion you determined

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1 that Hydro was imprudent. If we could start
 2 with the black start project, could you please
 3 briefly explain your opinion which is that
 4 that project was imprudent?
 5 MR. MAZZINI:
 6 A. Yes. Obviously in our report we've included a
 7 complete analysis of the black start project
 8 and that stretched from an examination of
 9 Hydro's actions from 2010 through 2015. We
 10 concluded that Hydro was imprudent in the
 11 management of that project throughout that
 12 period of time. While there are a number of
 13 reasons why we came to that conclusion, I
 14 think the chief focal point is the decision to
 15 rely on the Hardwoods combustion turbine as a
 16 source of black start capacity. I believe
 17 that decision was not appropriate.
 18 I believe that that's not a decision that
 19 meets the test of prudence, does not meet the
 20 reasonable decision kind of test. It fails
 21 that on a number of grounds. The first and
 22 foremost I think is the most obvious, that
 23 black start is required for Holyrood when
 24 Holyrood becomes isolated from the system. By
 25 definition, if Holyrood is isolated from the

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1 system, it does not have access to any power
 2 from Hardwoods. So in my mind, the Hardwoods
 3 solution is a non-starter right from day one.
 4 It does not meet the basic criteria, the very
 5 design basis for black start capability, which
 6 is that the plant has to start on its own.
 7 It's isolated from the system and therefore it
 8 cannot count on anything else.
 9 (9:30 a.m.)
 10 That, of course, is consistent with the
 11 black start standards that we've described in
 12 our report, the NERC standards, and that
 13 requires that black start capability of a unit
 14 has to be able to start that unit without any
 15 outside assistance, and of course, in this
 16 particular case, there became a total reliance
 17 on outside assistance in the form of the
 18 Hardwoods unit.
 19 I think even if the use of the Hardwoods
 20 unit made electrical sense, and it does not,
 21 of course, but even if it is, the Hardwoods
 22 unit has been very unreliable through the
 23 years. The evidence shows and our report
 24 indicates that between 2008 and 2012, there
 25 was essentially a forced outage rate, which is

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1 known as a UFOP, in the way the numbers have
 2 been presented of 26 percent, meaning at least
 3 a quarter of the time that unit's not
 4 available. So, in my mind, I wouldn't judge
 5 that unit reliable enough to depend on for
 6 black start in any event, even if it made
 7 electrical sense.

8 When we looked back, the evidence
 9 indicates that Hydro made a conscious decision
 10 in 2012 to rely on the Hardwoods unit. We
 11 have found no evidence in that, that there
 12 really was a thoughtful analysis done in 2012
 13 to arrive at that. We have not seen any
 14 evidence that the risks were adequately
 15 considered, that cost and risks were balanced
 16 and that, as I said, a thoughtful analysis was
 17 done at that time.

18 Finally, I'd like to say that when we
 19 look at the question of prudence with black
 20 start, we can't just look at one decision.
 21 This was a continuum really over a period of
 22 five years and I look back, for example, to
 23 2013. In January 2013, anyone who doubted
 24 that the Hardwoods was an inappropriate
 25 decision would know it at that time when

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1 Hardwoods was not able to black start Holyrood
 2 during that event. Yet, Hydro continued to
 3 depend on Holyrood even after -- excuse me, on
 4 Hardwoods even after the Hardwoods solution
 5 was proven to not be a solution.

6 So I think all of those reasons, again
 7 principally focused around the Hardwoods
 8 decision, is a reason for our conclusion that
 9 black start decisions were inappropriate.

10 We consider that there's a pretty high
 11 bar that must be passed in order to conclude
 12 imprudence and in my mind, it's passed rather
 13 easily in this particular case.

14 GREENE, Q.C.:

15 Q. Now the black start diesels have been in
 16 service since April 2014. Hydro's position
 17 appears to be that the diesels have been used
 18 by customers, so they're used and useful and
 19 their cost should be allowed to be recovered.
 20 Liberty disagreed with that position in their
 21 reply of September 17th this year. Could you
 22 please explain why you disagree?

23 MR. MAZZINI:

24 A. Well, actually, I don't completely disagree
 25 with that position. I think if we were to

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1 look at the black start project in a very,
 2 very narrow context, namely the acquisition of
 3 those eight diesel generators and the fact
 4 that they were in service for a given period
 5 of time, if we were just to focus on that
 6 piece, I would conclude that that was a
 7 prudent investment and that that likely would
 8 pass the test of cost recovery and that cost
 9 recovery would likely be appropriate for that.

10 But we can't just look at that narrow
 11 period. I think we have to look at the whole
 12 period in which black start was required and
 13 was lacking. We have to look at the decisions
 14 that transpired over a five-year period and we
 15 can't just focus on the narrow window when
 16 those diesel generators were in service. If
 17 we were to simply provide cost recovery, then
 18 effectively we are rewarding Hydro for a five-
 19 year period that was largely imprudent. We
 20 are penalizing customers having to pay for the
 21 entire period that really was not beneficial
 22 and really put the customers at risk.

23 And so on that basis, I think you have to
 24 come back with some sort of penalty or
 25 sanction that recognizes the non-performance

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1 of all those prior years. So really we think
 2 it should be really a two-step process that
 3 you would grant Hydro recovery of those costs
 4 but then come back with a sanction. I've
 5 recommended that it be an offsetting penalty
 6 of the same amount that's requested, but we do
 7 recommend that two-part process.

8 GREENE, Q.C.:

9 Q. Now the second project where you concluded
 10 that Hydro had acted imprudently was the
 11 failure of Unit No. One at Holyrood in January
 12 of 2013. Could you please explain how you
 13 came to that opinion?

14 MR. MAZZINI:

15 A. Yes. Again, we did a complete analysis of the
 16 unit one turbine failure using all the
 17 material that Hydro presented, including
 18 Hydro's root cause analysis. And I think
 19 we've presented a number of reasons why we
 20 concluded imprudence in this case.

21 Again, as in black start, I think there's
 22 one factor that we can really focus on as
 23 pivotal and really as the major factor that
 24 influenced our decision the most, and that is
 25 simply that there was a DC motor in this case

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1 that was at the root of this entire problem.
 2 That motor was flawed in at least three
 3 different ways, each of which was a fatal flaw
 4 in terms of the ability of that motor to
 5 operate as it was designed to operate. So
 6 there's three significant problems and most
 7 importantly, those problems existed at least
 8 back to 2009 and perhaps more than that, but
 9 at least Hydro has indicated that those
 10 problems were in place at least back to 2009.
 11 So we have a motor in critical service
 12 that was unable to perform and was unable to
 13 perform for a very long period of time. I
 14 think that of itself is evidence of
 15 imprudence. That we could stop the argument
 16 right there in my mind and I think we've met
 17 the burden of imprudence in that case. This
 18 was a critical piece of equipment and it was
 19 not maintained properly and not maintained in
 20 working order to perform its function. So as
 21 I said, that's the primary cause.
 22 I can look at a couple of secondary
 23 causes as well that have been discussed and
 24 they relate to the testing procedures
 25 associated with the motor and with the DC

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1 system itself, in terms of lube oil protection
 2 for the turbine.
 3 The first testing issue was the motor
 4 itself when it came back from the vendor.
 5 This motor was at a vendor in 2011. When it
 6 came back, it was supposed to be tested. It
 7 was supposed to have a speed test included in
 8 those tests. There is no evidence that that
 9 test was done. There is no documentation as
 10 required by the contract of any of the quality
 11 procedures from the vendor. Hydro did not
 12 obtain that documentation or verify that any
 13 of those tests were done. In the quality
 14 business, it's generally thought that if
 15 there's no documentation, then the test wasn't
 16 done. And so we concluded that the test
 17 probably was not done. If it was done, it
 18 wasn't done properly. In any event, there's
 19 no documentation, so end of story. If that
 20 test had been done, we would think surely the
 21 flaws, the three flaws would have been
 22 discovered and the 2013 event would have been
 23 prevented.
 24 The second testing issue that's mentioned
 25 in the root cause report is testing of the

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1 lube oil system in general. The tests that
 2 were conducted never verified that the DC pump
 3 would fulfil its obligation to provide
 4 adequate lube oil. Tests indicated that upon
 5 the proper signal the motor would start, but
 6 those tests did not demonstrate that it could
 7 meet its function. Those tests apparently
 8 have been in place for 45 years. Hydro has
 9 been relying on the original equipment
 10 manufacturer procedure for 45 years. Clearly,
 11 that test is inappropriate because it fails to
 12 meet the most basic of all criteria, namely
 13 that the thing works.
 14 So I think when we add all those things
 15 together, again the very high bar that we
 16 maintain for prudence is again passed in the
 17 case of the unit one turbine failure.
 18 GREENE, Q.C.:
 19 Q. In Liberty's report, there is a concern
 20 expressed about the possibility of a common
 21 mode failure with respect to the lube oil
 22 pumping system at the Holyrood plant. Please
 23 explain why you would -- the basis for that
 24 concern and why you felt it necessary to
 25 express it in your report.

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1 MR. MAZZINI:
 2 A. Yes, and I think we did not bring this up in
 3 the report as a matter of prudence, but I felt
 4 that it was appropriate to just express a
 5 concern that there was a potential here for
 6 what we call common mode failure. Common mode
 7 failure simply means that when you have
 8 multiple lines of defence, if an event can
 9 knock out more than one of those lines of
 10 defence at the same time, then that's known as
 11 a common mode failure.
 12 So in the case of the turbine generator,
 13 we have three lines of defence. We have a
 14 primary lube oil system. We have a secondary
 15 AC system and we have the DC system that's at
 16 the root of the problem we're talking today.
 17 It turns out that Hydro responded to an
 18 RFI during the process and they gave a very --
 19 an answer which I think was very surprising,
 20 and that answer said that "we've determined
 21 that on a loss of power when we start the
 22 emergency diesel generator to energize the
 23 secondary system, the AC pump, that that
 24 process cannot occur quick enough to prevent
 25 turbine damage". So that to me was a very

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1 surprising and very meaningful discovery.
 2 What it means is that on a loss of off-site
 3 power, obviously the turbine trips, taking out
 4 the first source of lube oil, but at the very
 5 same time, the secondary source is disabled as
 6 well because the emergency power cannot come
 7 on in time. So that's what's known as a
 8 common mode failure: on a single event, loss
 9 of off-site power, the first two lines of
 10 defence are destroyed.
 11 So in my mind, that is a significant
 12 thing. It's a significant danger and it did
 13 not relate directly to any kind of findings of
 14 imprudence, but I thought it was significant
 15 enough that we should call it to Hydro's
 16 attention and the Board's attention and with
 17 the presumption that Hydro will look into it
 18 and take action as they see appropriate.
 19 GREENE, Q.C.:
 20 Q. Mr. Mazzini, you have already given evidence
 21 that you also reviewed the new combustion
 22 turbine project and had concluded that that
 23 project did meet the standard for prudence.
 24 You are now aware of an increase in the cost
 25 of the new turbine from the time that you

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1 prepared your report and that Hydro in its
 2 2016 Capital Budget Application documentation
 3 indicated an increase of about ten and a half
 4 million dollars for that project. Does this
 5 increase in cost affect in any way your
 6 opinion with respect to the reasonableness and
 7 prudence of the new combustion turbine
 8 project?
 9 MR. MAZZINI:
 10 A. Well, as you say, we learned of this cost
 11 increase after our report was written. I
 12 therefore went back and redid the analysis and
 13 I found that the new total cost is still
 14 reasonable. In my previous analysis, it
 15 indicated that the cost of the new CT was
 16 slightly below the industry average as I had
 17 calculated it. With this new number, it's now
 18 slightly above, but right at about the median
 19 of the plants that I sampled. So on that
 20 basis, I don't see any reason to change the
 21 conclusion that based on industry data the
 22 costs seem to be reasonable.
 23 GREENE, Q.C.:
 24 Q. Thank you, Mr. Mazzini. Now I'd like to turn
 25 to Mr. Lautenschlager for the projects that

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1 you reviewed. First, were you involved in
 2 Liberty's investigation of the 2013 and 2014
 3 outages in Newfoundland and in the preparation
 4 of their two 2014 reports?
 5 MR. LAUTENSCHLAGER:
 6 A. Yes. I reviewed the transmission system
 7 failures and the outages and participated with
 8 the reports.
 9 GREENE, Q.C.:
 10 Q. And what projects did you review for Liberty's
 11 prudence review report of July 6th?
 12 MR. LAUTENSCHLAGER:
 13 A. I reviewed the Sunnyside replacement equipment
 14 project, the Western Avalon tap changer
 15 project and the Sunnyside and Holyrood breaker
 16 overhauls project and additionally, I reviewed
 17 the Labrador City terminal stations project.
 18 GREENE, Q.C.:
 19 Q. Hydro's asset management practices,
 20 particularly its preventative maintenance
 21 practice, are key for all of these projects
 22 that you reviewed. In your opinion, what are
 23 the primary goals for an electrical equipment
 24 maintenance program?
 25 MR. LAUTENSCHLAGER:

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1 A. Well, the goal is quite simple. The goal of
 2 asset management is to keep the lights on
 3 using efficient and effective methods.
 4 GREENE, Q.C.:
 5 Q. And what would such a program normally
 6 include?
 7 MR. LAUTENSCHLAGER:
 8 A. Electrical maintenance programs include
 9 identifying equipment failure modes first and
 10 then applying preventative and corrective
 11 measures or activities to prevent those
 12 failure modes from occurring.
 13 (9:45 a.m.)
 14 GREENE, Q.C.:
 15 Q. So what is a preventative maintenance program
 16 that you just mentioned?
 17 MR. LAUTENSCHLAGER:
 18 A. Asset management identifies the types and
 19 timing of preventative maintenance activities
 20 necessary to keep equipment from failing.
 21 Asset management sets preventative maintenance
 22 cycles, we call them PM cycles, based on
 23 equipment failure modes and age. Minor
 24 preventative maintenance activities include
 25 walk-around inspections, which do not require

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1 removing equipment from service. Minor PMs
 2 include weekly, monthly, quarterly and annual
 3 inspections. Minor PMs include such items as
 4 monitoring oil levels, testing transformer oil
 5 for dissolved gas and other reasons and
 6 verifying that air blast breaker pressures and
 7 heaters and other things are normal. It's the
 8 obvious defects are being identified by the
 9 walk-around inspections.

10 Major PMs on the other hand require
 11 removing equipment from service and much more
 12 intrusive type of maintenance and are
 13 conducted typically on three and eight-year
 14 cycles. Major PMs for transformers including
 15 cleaning bushings and testing transformer and
 16 bushing insulation. Major PMs for air blast
 17 breakers including -- include testing the
 18 insulation, cleaning bushings and controls,
 19 lubricating moving parts, checking for air
 20 leaks, checking contact resistance, verifying
 21 that the open and close operation times are
 22 appropriate and making adjustments necessary
 23 for proper operation.

24 PMs may also trigger the need for
 25 additional corrective maintenance activities

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1 called CMs that couldn't be done as part of
 2 the PMs.

3 GREENE, Q.C.:

4 Q. What is the purpose of doing preventative
 5 maintenance?

6 MR. LAUTENSCHLAGER:

7 A. Well, not only is there some servicing
 8 included in PM, but PMs are designed to
 9 prevent equipment failures by alerting
 10 personnel, maintenance personnel, for the need
 11 to do some corrective maintenance. PMs must
 12 be done on predetermined periods to be
 13 effective. Sometimes because the rate of
 14 deterioration increases with equipment age or
 15 because of the history of operating issues,
 16 the time periods for these PMs should be
 17 sometimes decreased from the standard period.

18 GREENE, Q.C.:

19 Q. And how is the scope of a preventative
 20 maintenance program determined?

21 MR. LAUTENSCHLAGER:

22 A. Well, utilities typically examine past PM
 23 practices and modify their programs based on
 24 internal experience, known equipment issues,
 25 equipment age, consultant recommendations,

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1 what other utilities are doing and of course,
 2 common sense. Manufacturers provide
 3 procedures and requirements for lubrication,
 4 adjustments and replacement of worn parts, but
 5 they provide one of many inputs in identifying
 6 effective PM programs.

7 GREENE, Q.C.:

8 Q. Now you said another part of an effective
 9 maintenance program is corrective maintenance,
 10 so what are corrective maintenance practices
 11 and what's their purpose?

12 MR. LAUTENSCHLAGER:

13 A. Well, as I said, some corrective maintenance
 14 activities, such as lubricating, cleaning and
 15 adjusting are included in the PMs as part of
 16 the scheduled work as a servicing. Replacing
 17 a major part determined by PMs is completed as
 18 corrective maintenance or a CM. CMs include
 19 high priority repairs that if not timely
 20 completed could lead to failure. They also
 21 include low priority repairs that can be
 22 deferred because not quickly addressing these
 23 CMs have little consequences.

24 I want to add that repairing equipment
 25 after it fails is not a corrective

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1 maintenance. It's emergency repair.

2 GREENE, Q.C.:

3 Q. How are corrective maintenance programs
 4 determined?

5 MR. LAUTENSCHLAGER:

6 A. CMs include equipment adjustments, repairs and
 7 component replacement procedures based on
 8 manufacturer's manuals and on maintenance
 9 personnel and contractor training, experience
 10 and skills and consultant recommendations.
 11 Scheduling CM work can be prioritized. That's
 12 okay, based on risk and consequences.

13 GREENE, Q.C.:

14 Q. Okay. Through evidence given by Hydro, it
 15 appears that Hydro may have given priority to
 16 corrective maintenance work over preventative
 17 maintenance work. Is this appropriate in your
 18 opinion?

19 MR. LAUTENSCHLAGER:

20 A. No, it doesn't make sense. PM work should
 21 always be conducted consistent with asset
 22 management schedules or sooner because for the
 23 need for CM work will not be timely identified
 24 if PMs are deferred. Resources should always
 25 be provided for PM work, regardless of the

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1 need to address emergencies, known critical CM
 2 work and capital project work. Deferring PM
 3 activities is very risky and defeats the
 4 purpose of PMs and which is to timely identify
 5 deterioration that can lead to failure.
 6 Deferring PMs is like flying blind for the
 7 maintenance personnel because the missed
 8 opportunity to identify the need to conduct
 9 corrective maintenance may result in
 10 unexpected equipment failure. Deferring PM
 11 work defeats the purpose of conducting timely
 12 PMs.
 13 GREENE, Q.C.:
 14 Q. What about corrective maintenance work, can
 15 that be prioritized?
 16 MR. LAUTENSCHLAGER:
 17 A. Yes. As I mentioned before, corrective
 18 maintenance work, it's legitimate to
 19 prioritize corrective maintenance. Hydro's
 20 prioritization method for CMs appears to be
 21 consistent with good utility practice.
 22 Priority one and two CMs are generally
 23 actually emergency repairs. High risk
 24 priority three CMs should be addressed within
 25 a month because deferring this work can lead

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1 to imminent equipment failures. However, low
 2 risk priority four CMs are further prioritized
 3 and sometimes deferred until outages are
 4 available and may be done with other work.
 5 GREENE, Q.C.:
 6 Q. Okay. So far we've talked about the theory of
 7 maintenance programs, preventative and
 8 corrective. Now I wanted to turn to Hydro's
 9 specific programs. You have reviewed Hydro's
 10 terminal station, transformer and air blast
 11 circuit breaker preventative maintenance
 12 activities. Are they appropriate in your
 13 opinion?
 14 MR. LAUTENSCHLAGER:
 15 A. Yes. I found that the servicing, adjusting
 16 and testing activities included in Hydro's
 17 preventative maintenance practices are
 18 consistent with good utility practice.
 19 However, what I found not consistent with good
 20 utility practice was Hydro's practice prior to
 21 2014 of deferring some of the six-year PMs, of
 22 not using four-year schedule for the 40 plus
 23 year air blast circuit breakers and not
 24 conducting dissolved gas analysis for its most
 25 critical transformers more often than once a

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1 year.
 2 GREENE, Q.C.:
 3 Q. Okay. Prior to January 2014 when the outages
 4 occurred, Hydro had a standard of completing
 5 major preventative maintenance every six years
 6 for terminal station transformers and air
 7 blast circuit breakers. Was this appropriate
 8 for its equipment in your opinion?
 9 MR. LAUTENSCHLAGER:
 10 A. Well, I agree that Hydro's six-year PMs for
 11 transformers was consistent with good utility
 12 practice. I do not agree that the six-year PM
 13 for aged circuit breakers, air blast circuit
 14 breakers was appropriate. In the Liberty
 15 interim report of April 24th, 2014, we
 16 recommended that Hydro should reduce the time
 17 between major PMs on its air blast circuit
 18 breakers from six years to four years,
 19 primarily because the breakers were over 40
 20 years.
 21 GREENE, Q.C.:
 22 Q. Now I wanted to talk about the failure of the
 23 Sunnyside transformer that occurred on January
 24 4th, 2014. It appears that this has now been
 25 determined to have been caused by a bushing

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1 failure. In your report, you referred to the
 2 delay in performing the maintenance on this
 3 transformer and would the preventative
 4 maintenance include any action that could have
 5 detected a bushing defect?
 6 MR. LAUTENSCHLAGER:
 7 A. Yes, it would have. One of the electrical
 8 tests included in Hydro's transformer PMs is
 9 called the double power factor test. This
 10 test identifies even minor degradation of
 11 transformer winding and bushing insulation.
 12 Reportedly, a bushing failure caused the
 13 transformer failure. If a bushing was
 14 defective, the power factor test would have
 15 detected the condition. Hydro had last
 16 conducted the test in 2007 and in my opinion,
 17 had Hydro conducted the test on the bushings
 18 within six years, which would have been
 19 sometime in 2013, the test would have
 20 identified the defective bushing.
 21 GREENE, Q.C.:
 22 Q. In your report, you also describe an increase
 23 in the level of acetylene gas that had been
 24 observed in the oil of this transformer in
 25 September of 2013. Why is this relevant?

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1 MR. LAUTENSCHLAGER:
 2 A. Any acetylene in transformer oil, especially
 3 if it's increasing, is alarming because
 4 acetylene indicates arcing in oil and it might
 5 -- and that indicates that the transformer is
 6 ready to -- could be ready to fail. However,
 7 the acetylene in the T1 transformer oil, it
 8 had increased from seven parts per million in
 9 2012 to 11 parts per million in September
 10 2013. Hydro indicated it was not concerned
 11 with 11 parts per million because it had
 12 considered this level within normal limit
 13 levels. In fact, this was the highest level
 14 ever recorded on this transformer since they
 15 began the dissolved gas test in 1994. They
 16 had a prior one at ten parts per million back
 17 in 1997.
 18 Hydro assumed that the higher acetylene
 19 level was caused by tap changer oil
 20 contaminating the transformer oil. The
 21 problem here is that the value of dissolved
 22 gas testing in this transformer, and in about
 23 19 other of their transformers, has been
 24 minimized over the last 20 years because Hydro
 25 has not been replacing leaking tap changer

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1 seals and gaskets which is a usual utility
 2 practice.
 3 GREENE, Q.C.:
 4 Q. The lab report that Hydro received with
 5 respect to the increased gas had recommended
 6 investigative sampling. In your opinion, what
 7 should Hydro have done when it received this
 8 lab report?
 9 MR. LAUTENSCHLAGER:
 10 A. Well, good utility practice would have been to
 11 re-sample the transformer oil within a week or
 12 so of receiving the report, and a function of
 13 that would be to determine -- monitor whether
 14 the gas, acetylene gas was increasing, and if
 15 it was increasing, then you further
 16 investigate.
 17 GREENE, Q.C.:
 18 Q. Is it a difficult thing to do to test the gas
 19 in the oil?
 20 MR. LAUTENSCHLAGER:
 21 A. Absolutely not. Testing for dissolved gas is
 22 simple. No outage is necessary. An employee
 23 would have to travel to Sunnyside and draw an
 24 oil sample from the transformer. This
 25 sampling can be done in just a few minutes and

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1 then the sample is sent to their laboratory
 2 and the cost of analysing an oil sample is
 3 minimal.
 4 GREENE, Q.C.:
 5 Q. Now Hydro has stated that it did do testing of
 6 the gas in oil on a similar transformer at
 7 Stony Brook and found that the gas was coming
 8 from the tap changer. Does that information
 9 affect your opinion?
 10 MR. LAUTENSCHLAGER:
 11 A. Well, it only confirms their opinion and my
 12 opinion also that the oil in the T1
 13 transformer probably was contaminated with tap
 14 changer oil as it is in the Stony Brook
 15 transformer and in other transformers. It
 16 does not prove, however, that the increase in
 17 acetylene in the T1 transformer was from the
 18 tap changer. Maybe or maybe not. That's why
 19 Hydro should have been replacing tap changer
 20 seals and gaskets over the last 20 years as
 21 been -- which is good utility practice.
 22 GREENE, Q.C.:
 23 Q. Is it difficult -- how big a job is it to
 24 repair the tap changer seals and gaskets?
 25 MR. LAUTENSCHLAGER:

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1 A. In my experience, since I had a company that
 2 did substation maintenance for 20 years, we
 3 probably did -- I had managed about 20 to 25
 4 projects of re-gasketing tap changers and the
 5 cost in the '90s was around \$30,000 and it
 6 took about -- US, and it took about four days.
 7 Now assume it would be double that now maybe.
 8 GREENE, Q.C.:
 9 Q. And if the tap changer seals and gaskets had
 10 been corrected, then that would have
 11 eliminated the issue that the gas might have
 12 been coming from the tap changer? Is that
 13 correct?
 14 MR. LAUTENSCHLAGER:
 15 A. Well, yes, because in the -- if there is
 16 acetylene coming from the tap changer, it
 17 would have been sealed from the transformer
 18 oil and therefore Hydro could have had
 19 accurate dissolved gas tests and therefore,
 20 they wouldn't have assumed that the acetylene
 21 came from the tap changer, but in fact would
 22 have acted upon the fact that there may have
 23 been an issue inside the transformer. In
 24 fact, the acetylene -- I can't say for sure
 25 the acetylene indicated that there was an

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1 issue in the transformer because of this
 2 problem with the tap changer, but I can say
 3 that if the acetylene did come from the
 4 transformer, it could have come from a defect
 5 external in the -- near the bushing. I mean,
 6 that's an assumption. But it could go along
 7 with the fact that there was something arcing
 8 in the transformer before it failed.

9 GREENE, Q.C.:
 10 Q. An air blast circuit breaker also failed to
 11 operate at the Sunnyside terminal station on
 12 January 4th, 2014. The record discloses that
 13 no cause has been determined for this failure,
 14 and we know the preventative maintenance for
 15 that breaker was also past due at the time of
 16 its failure by about five months. Some may
 17 argue that this is not a significant time,
 18 five months, and that it doesn't matter. In
 19 your opinion, why is it significant?
 20 (10:00 a.m.)
 21 MR. LAUTENSCHLAGER:
 22 A. Well, to start with, six years between PMs for
 23 aged air blast circuit breakers and large
 24 transformers is a long stretch, and any delay
 25 in not completing the PMs within six years

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1 increases the risk. Above what was calculated
 2 by asset management back when the program was
 3 developed increases the risk of not
 4 identifying the issues that lead to failure.
 5 For example, a deteriorated bushing which
 6 likely caused the T1 transformer failure could
 7 have been identified by the double power
 8 factor test that would have been part of the
 9 PM if it had been conducted in September, a
 10 few months before the failure. Although I
 11 can't say for certain that the unknown issues
 12 that caused the B1L03 air blast circuit
 13 breaker malfunction would have been detected
 14 or corrected by corrective maintenance test,
 15 the point is that the opportunity was missed
 16 for the preventative maintenance to provide
 17 the information or to actually even prevent by
 18 the actions included in the PMs to prevent the
 19 failure as the PMs are designed to do. PMs
 20 must be done on time for PMs to be of value.
 21 Hydro's systematic deferral of PMs is not good
 22 utility practice. Utilities do not defer PMs.
 23 A deferred PM is a missed PM and increases the
 24 risk of failure. In my years of evaluating
 25 utility substation maintenance practices, I

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1 found some utilities that have deferred CMS,
 2 the corrective maintenance work, past the
 3 scheduled dates that they were scheduled for
 4 sometimes, and that's an issue, but I have not
 5 found that any utility systematically
 6 prioritized and substantially deferred PMs
 7 because of resource limitations. It's just
 8 not done.

9 GREENE, Q.C.:
 10 Q. Hydro has stated that it could not comply with
 11 its six year plan to catch up on overdue
 12 preventative maintenance because a critical
 13 corrective unplanned maintenance and increased
 14 capital projects had to be done first. What
 15 is your opinion of the deferral of
 16 preventative maintenance for this reason and
 17 is it appropriate?
 18 MR. LAUTENSCHLAGER:
 19 A. Hydro indicated that since 2010, it's been
 20 attempting to catch up on overdue air blast
 21 circuit breaker and transformer PMs. However,
 22 as we've seen before, as indicated PR-PUB-NLH-
 23 167 and 169, they had more deferred
 24 transformers and air blast circuit breakers at
 25 the end of 2013 than it did in 2010. Clearly

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1 Hydro did not make a reasonable effort to try
 2 to catch up in 2010 through 2013. If Hydro's
 3 in-house resources were not sufficient to
 4 complete PMs, as well as CMS and emergency
 5 repairs and capital projects, the solution is
 6 quite simple. Hydro should have identified
 7 the need to hire substation maintenance
 8 contractors back in 2010 or 2011, as they
 9 finally did in 2014.

10 GREENE, Q.C.:
 11 Q. In your review, did you see any evidence that
 12 the deferral of preventative maintenance was
 13 done by Hydro in a considered way, taking into
 14 account the associated risk?
 15 MR. LAUTENSCHLAGER:
 16 A. No, Hydro has said that its personnel know its
 17 equipment, the condition of its equipment and
 18 the associated risk of deferring PMs. Hydro
 19 said it placed priority on transformers and
 20 circuit breakers at generating terminal
 21 stations and on some of the most backlogged
 22 transformers and circuit breakers. However, I
 23 can't see how Hydro could have understood the
 24 condition of deferred equipment without first
 25 reviewing timely PM reports and test data.

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1 When PMs are deferred, Hydro's maintenance
 2 personnel, as I said before, was flying blind
 3 in regards to knowing what was happening with
 4 the deferred equipment. Deferring PMs is not
 5 consistent with good utility practice.
 6 GREENE, Q.C.:
 7 Q. In your opinion, what would good utility
 8 practice have required Hydro to do if
 9 unplanned corrective maintenance or increased
 10 capital arose year after year, as stated by
 11 Hydro, which prevented it from doing its full
 12 preventative maintenance program?
 13 MR. LAUTENSCHLAGER:
 14 A. Well, the solution is simple, as I said.
 15 Hydro should have hired substation maintenance
 16 contractors back in 2010 or 2011. There are
 17 several qualified substation maintenance
 18 contractors in Canada and numerous contractors
 19 in the USA. Hydro could have caught up on
 20 this work early on and there would have been
 21 no need to increase internal resources by
 22 using substation maintenance contractors on a
 23 temporary basis.
 24 GREENE, Q.C.:
 25 Q. Now you also looked at the Western Avalon tap

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1 changer which was damaged when an air blast
 2 circuit breaker failed to operate properly on
 3 January 4th. The preventative maintenance for
 4 that breaker was also overdue. How long was
 5 that one overdue?
 6 MR. LAUTENSCHLAGER:
 7 A. Avalon breaker BIL37 was two and a half years
 8 overdue for its six year maintenance.
 9 GREENE, Q.C.:
 10 Q. Has the cause of the misoperation of this
 11 breaker been identified?
 12 MR. LAUTENSCHLAGER:
 13 A. No, it has not.
 14 GREENE, Q.C.:
 15 Q. Okay, in its reply Hydro has stated that
 16 there's no direct linkage between deferred
 17 maintenance and the issues that caused the
 18 January 2014 outages. They further stated
 19 that the Board must find that the deferral of
 20 the preventative maintenance directly caused
 21 the equipment failures that are under review
 22 before there can be an imprudence finding.
 23 First I'd like to address the Sunnyside
 24 transformer failure and the role of PM in that
 25 failure. In your mind, is there a linkage for

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1 the failure of the Sunnyside transformer with
 2 the deferral of preventative maintenance?
 3 MR. LAUTENSCHLAGER:
 4 A. Well, the January 4th outage was initiated by
 5 the transformer failure, and I believe that
 6 there is a direct linkage between deferred
 7 maintenance and the Sunnyside transformer
 8 failure. Hydro indicated that bushing failure
 9 caused T1 transformer failure. The double
 10 power factor test included in the six year
 11 maintenance should have been done in 2013,
 12 which would have detected a deteriorated
 13 bushing, in my opinion. Hydro had already
 14 identified since 2000, 14 other defective
 15 bushings using the test method, so we know
 16 that the test method is important to do on
 17 transformers. Those other 14 were repaired
 18 before any of those led up to a failure.
 19 Hydro's deferral PM directly would cause Hydro
 20 to miss the opportunity to identify the
 21 defective bushing.
 22 GREENE, Q.C.:
 23 Q. Now let's talk about the two air blast circuit
 24 breakers that also failed on January 4th, the
 25 one at Sunnyside and the one at Western

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1 Avalon, where the cause of the misoperation of
 2 the breakers has not been able to be
 3 determined. Why, in your opinion, was Hydro
 4 imprudent with respect to these failures even
 5 if the cause of the misoperation cannot be
 6 determined?
 7 MR. LAUTENSCHLAGER:
 8 A. Well, even though the cause of the
 9 malfunctions were not determined, I believe
 10 there are linkages between the malfunctions
 11 and the deferred PMs. Air blast breaker PMs
 12 are designed to verify that the breakers will
 13 operate properly, and include making
 14 adjustments to make sure that they operate
 15 properly. Had Hydro timely conducted the PMs,
 16 Hydro would have had the opportunity to
 17 identify or even correct any operational
 18 defects that caused the malfunctions, whatever
 19 they were, and Hydro missed this opportunity.
 20 GREENE, Q.C.:
 21 Q. Now Mr. Antonuk, I wanted to go back with
 22 respect to prudence review work and ask your
 23 opinion about Hydro's position that there is a
 24 need for someone to establish causation before
 25 you can find imprudence. What is your opinion

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1 with respect to that requirement?
 2 MR. ANTONUK:
 3 A. I believe it would unduly diminish the
 4 accountability that is necessary to ensure
 5 that utilities operate systems and perform
 6 public service responsibilities carefully,
 7 efficiently, and effectively. There's no
 8 doubt that effective maintenance reduces the
 9 risk of equipment failure. There's a clear
 10 and direct and substantial causal connection
 11 between good maintenance and good equipment
 12 performance, or conversely poor maintenance
 13 and poor equipment performance. Hydro owns
 14 and operates the kinds of equipment at issue
 15 here and has been for many decades. It
 16 performed what I think we can presume to be an
 17 effective analysis of the causes of the
 18 equipment failures on January 2014, save for
 19 the Sunnyside transformer failure, neither it
 20 nor its experts could find reasons that
 21 they're willing to stand behind. In summary,
 22 where does that leave us; I believe with three
 23 critical circumstances to keep in mind, (a)
 24 the causal connection between maintenance and
 25 performance is clearly established, (b) in our

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1 opinion, a failure to maintain properly has
 2 also been clearly established, and (c) the
 3 owner operator, in this case Hydro, who would
 4 presumably benefit from a finding of causes
 5 beyond its control, hasn't been able to do so
 6 even after extensive opportunity and
 7 investigation at the time, and a continuing
 8 opportunity since to do further examination if
 9 it believed it were appropriate. Those three
 10 circumstances, I think, raise the following
 11 question that the Board needs to decide; under
 12 those circumstances, is it reasonable to
 13 compel the Board on the one hand, or customers
 14 on the other hand, to establish cause with
 15 definiteness before determining that it's
 16 Hydro rather than customers who should bear
 17 the consequences of its failure to act
 18 prudently in maintaining its equipment.
 19 GREENE, Q.C.:
 20 Q. I want to turn now to another issue, and
 21 that's the issue that we have called
 22 "betterment". Hydro has offered evidence
 23 suggesting that the equipment replacements and
 24 repairs at Sunnyside and Western Avalon have
 25 resulted in a betterment and that customers

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1 should pay for this betterment. Mr. Antonuk,
 2 do you agree that betterment has a role here?
 3 MR. ANTONUK:
 4 A. I don't. Betterment certainly has a role in
 5 some context, but it's just simply the wrong
 6 way to look at the circumstances here. The
 7 right standard here is the customer should pay
 8 no more than they would have in the absence of
 9 destruction and damage caused by imprudence.
 10 To the contrary, the approach urged by Hydro
 11 witnesses would require customers to pay far
 12 more than they would have had the damage or
 13 destroyed equipment continued to serve.
 14 Customers have paid on the basis of the
 15 depreciated cost of that equipment which was
 16 installed decades ago. Hydro's proposal would
 17 substitute that with a much higher cost of
 18 equipment that is only needed due to
 19 imprudence, in our opinion. Even after, I'll
 20 call it discount, that Hydro's betterment
 21 approach would create for that equipment, its
 22 installed cost nevertheless remains far, far
 23 higher than that of the equipment lost. The
 24 resulting investment that Hydro proposes to
 25 put in rate base, therefore, not only doesn't

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1 fail to keep customers harmless, it actually
 2 puts them in a much worse position and causes
 3 them to pay much higher costs across the
 4 duration for which rates set in this
 5 proceeding are likely to be in effect.
 6 GREENE, Q.C.:
 7 Q. But how do you deal with the fact that
 8 customers will at some point in the future
 9 have access to equipment that Hydro would
 10 eventually have had to install, anyway?
 11 MR. ANTONUK:
 12 A. Well, I think you have to start from the
 13 notion that charging customers far, far more
 14 in the next ten years in return for benefits
 15 some time after that really isn't a bargain at
 16 all. There's a well established rule for
 17 treating the cost, a well established
 18 regulatory rule in principle for treating the
 19 cost of equipment that is not needed for the
 20 first years of its operation or its service
 21 life. That same rule should be applicable and
 22 is logically extendable to equipment that
 23 would not have been needed, but for
 24 imprudence. Simply under that rule, utilities
 25 carry the investment for the period during

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1 which it is not needed, and then place the
 2 equipment in rate base at then depreciated
 3 cost at the time it becomes needed and for the
 4 remainder of its life. Applying that rule,
 5 while basing current rates on the depreciated
 6 cost of the equipment before replacement and
 7 repair, provides a balanced approach that
 8 assigns to the company a fair and proper share
 9 of the cost of its imprudence.

10 GREENE, Q.C.:

11 Q. Now turning to the last project that Liberty
 12 determined was imprudent with respect to the
 13 breaker at Holyrood which failed on January
 14 5th, 2014, in your report, Liberty concluded
 15 that Hydro acted improperly with respect to
 16 how it had performed maintenance on this
 17 breaker in 2013. Can you please explain how
 18 you came to that conclusion and what was wrong
 19 with what Hydro did?

20 (10:15 a.m.)

21 MR. LAUTENSCHLAGER:

22 A. Well, even Hydro concluded that the Holyrood
 23 breaker, B1L17, had mechanically malfunctioned
 24 because water had entered the receiver tank
 25 when the breaker was disassembled for about a

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1 month. They were doing some repair - they
 2 were applying some RTVs material on their
 3 insulators is what caused this work to happen,
 4 and they had to disassemble the breakers and
 5 take the insulators into a shop. Hydro
 6 claims, however, that it had sealed the
 7 receiver tanks, the part left behind in the
 8 field when they took the top part off, from
 9 the March weather which, I assume, was fairly
 10 harsh. However, it's logical that the
 11 receiver tank, at least the one that had the
 12 water in it, was not properly sealed because
 13 the only way water could have entered the tank
 14 was either before the seal was applied or
 15 during when the seal was in place.
 16 Furthermore, Hydro had not produced a written
 17 procedure for disassembling the air blast
 18 circuit breaker, except after the event in
 19 2014 they prepared a procedure, and any
 20 evidence describing how the receiver tank was
 21 sealed was not provided. We don't know
 22 whether it was just covered with a tarp or was
 23 it a special seal and how was the seal
 24 applied, we don't know, they don't know.
 25 Also, Hydro never flushed possibly wet air

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1 from the receiver, or attempted to conduct any
 2 kind of moisture and air test on the receiver
 3 tanks before returning the breaker to service.
 4 These activities that Hydro admitted would
 5 have been required by good utility practice,
 6 in my opinion.

7 GREENE, Q.C.:

8 Q. As a result of that failure of the breaker,
 9 Unit 1 at Holyrood was unavailable from
 10 January 5th to January 8th, 2014, and Liberty
 11 has calculated a proposed disallowance with
 12 respect to supply costs as a result of
 13 increased supply costs due to the
 14 unavailability of Unit 1. Mr. Mazzini, I
 15 believe you made that calculation. Could you
 16 please explain how you prepared the
 17 calculation for the proposed disallowance due
 18 to the imprudence related to Unit 1's
 19 unavailability?

20 MR. MAZZINI:

21 A. Yes, as you said, the period that is in
 22 question here is January 5th through January
 23 8th, that's the duration that Unit 1 was out
 24 of service. Hydro reported that total
 25 replacement costs in that period from Unit 1

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1 and all other units was 2.86 million dollars.
 2 So a challenge in this calculation is to
 3 figure out what part of that 2.86 million is
 4 attributable to Unit 1. Now the correct way
 5 of doing this calculation is to look at the
 6 cost of the unavailable unit; namely, the 65
 7 megawatts from Holyrood 1, look at the
 8 specific units that replaced that 165
 9 megawatts, and calculate the difference and
 10 that would be the appropriate penalty that we
 11 would recommend. Unfortunately, the data is
 12 not available on the specific units replacing
 13 that 165, so we can't do that calculation. We
 14 are, therefore, forced to do an approximation,
 15 to seek some other way of approximating what
 16 those damages might have been. The way I chose
 17 to do that, I looked at a number of different
 18 alternatives and finally concluded the best I
 19 could do was to look at a corresponding point
 20 in time when Unit 1 was in service and then
 21 compare the costs between those two periods.
 22 So I looked at the replacement cost in the 5th
 23 through 8th, and then I looked at the next
 24 four days. By the way, the next four days
 25 were reasonably similar to the 5th through

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1 8th, not exactly, but reasonably similar. I
 2 said, well, the only difference is that Unit 1
 3 was in service in the later four days, it was
 4 not in the previous. So what's the difference
 5 between the replacement cost, and the answer
 6 was about 2.2 million dollars. Now Hydro
 7 indicated in its reply evidence that, well,
 8 that's a little arbitrary, why did you take
 9 the second - why did you take the later four
 10 days, why don't you go back and take the first
 11 four days of the month, the 1st through the
 12 4th, which is a reasonable question, and one
 13 we felt obligated to look at, but when I look
 14 at those first four days, as you might recall
 15 in the beginning of 2014, those were chaotic
 16 days. First of all, the loads were very high.
 17 If we look at the first four days, the loads
 18 were perhaps 175 megawatts higher than they
 19 were in the second four days, so it's very
 20 significant. In terms of unavailable
 21 capacity, it was about the same, so that's
 22 comparable, but most importantly in terms of
 23 temperature, very, very significant
 24 difference, 7 degrees lower in the first four
 25 days compared to the second four day period,

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1 and most importantly, Hydro couldn't meet
 2 load, there were rotating outages and there
 3 were a substantial number of outages in the
 4 first four days. So I judge that period to be
 5 fairly chaotic and, therefore, not really
 6 appropriate to use in comparison, and that's
 7 why I settled on the later four days, and as
 8 of right now it's still the best that I could
 9 do and the best that I'm aware of.

10 GREENE, Q.C.:

11 Q. Mr. Mazzini, you said in your answer that
 12 information was not available to allow you to
 13 do an exact calculation. Why wasn't the
 14 information - did you mean information not
 15 available to Liberty, or what did you mean by
 16 information not available?

17 MR. MAZZINI:

18 A. Well, Hydro did not collect that data, and
 19 we've seen this elsewhere too that utilities
 20 don't always collect the data to the detail
 21 that it's needed, and in this case the data
 22 just wasn't there for Hydro or us to do the
 23 calculation.

24 GREENE, Q.C.:

25 Q. Okay, thank you. Mr. Vickroy, with respect to

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1 the work that you did for Liberty's prudence
 2 review, could you please explain how you
 3 determined the proposed disallowances because
 4 generally you calculated what the proposed
 5 disallowance would be, is that correct?

6 MR. VICKROY:

7 A. Yes.

8 GREENE, Q.C.:

9 Q. Okay.

10 MR. VICKROY:

11 A. We used 2014 actual audited information in
 12 order to come up with the financial
 13 information that was in our report. We note
 14 also that Hydro used five months of actual
 15 information and seven months forecasted data
 16 in compiling its 2014 revenue deficiency
 17 filing. These were two very different sets of
 18 numbers and they're the reason why Hydro has a
 19 number of comments in its reply evidence of
 20 the difference in numbers, so we were using
 21 actuals. For each project, the Liberty team
 22 jointly determined the capital and operating
 23 expenses that were to be either recommended
 24 for normal rate recovery or recommended for
 25 prudence disallowance. We prepared a table

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1 that's in the report. It's Table 9.1, which
 2 is a summary of all of the recommendations for
 3 capital and operating expenses on all of the
 4 projects and all the items that we reviewed.
 5 Since the report, there were a few minor
 6 adjustments that have been made. We requested
 7 and reviewed additional RFIs on some of
 8 Hydro's reply costs and we made a few
 9 adjustments. These adjustments are included
 10 in our reply evidence, and those adjustments
 11 have brought Liberty and Hydro into line and
 12 into agreement regarding what the actual costs
 13 were for 2014 on these items.

14 GREENE, Q.C.:

15 Q. I understand from your answer, Mr. Vickroy,
 16 that Liberty did not undertake to determine
 17 revenue requirement or rate base implications,
 18 but reported on actual expenses for 2014, is
 19 that correct?

20 MR. VICKROY:

21 A. Yes. As I noted, we used 2014 actual audited
 22 financial data, and we received that upon
 23 request through RFIs from Hydro, and placed
 24 them in our report. We reported all the
 25 prudence financial data in the report in this

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1 format; in other words, 2014 actuals, and we
 2 did not determine or attempt to determine
 3 revenue requirements or translate the report
 4 financial data in terms to be consistent with
 5 Hydro's revenue deficiency filing. So we did
 6 not attempt or even intend to attempt to do
 7 that. We have understood that other
 8 participants in this case, Grant Thornton,
 9 will be responsible for converting the
 10 financial data that's in Liberty's Report for
 11 GRA usage in the proceeding, and that would be
 12 following a Board order to do so. So as a
 13 result, we really don't have any comments on
 14 Hydro's reply evidence or in its surrebuttal
 15 of estimates of the GRA impacts of what is in
 16 our report in our recommendations.
 17 GREENE, Q.C.:
 18 Q. Hydro in its reply did refer to potential
 19 double counting issues in Liberty's report.
 20 Have you addressed these issues in your reply
 21 evidence?
 22 MR. VICKROY:
 23 A. Yes, we have. We first requested additional
 24 support and clarifying information on these
 25 particular issues identified by Hydro through

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1 RFIS. With that additional information
 2 provided by Hydro, we addressed these specific
 3 instances in our reply evidence, which was
 4 filed on September 15th, 2015. These specific
 5 instances were - I'll just list them out. On
 6 our reply reference document, page 15, lines
 7 19 to 25, there's an adjustment regarding
 8 Sunnyside consulting fees. On page 16, lines
 9 19 to 26, there's an adjustment regarding
 10 supply rate related costs, and thirdly on page
 11 17, lines 5 to 15, there's an adjustment for
 12 Holyrood 1 capital.
 13 GREENE, Q.C.:
 14 Q. Okay. In Hydro's surrebuttal comments were
 15 made with respect to certain costs Liberty had
 16 included for the legal costs. Have you since
 17 this Hydro surrebuttal had the opportunity to
 18 review invoices that were provided to you by
 19 Hydro?
 20 MR. VICKROY:
 21 A. Yes, originally we would note that all of the
 22 McInnes Cooper invoices that were included in
 23 our total of \$876,000.00 in our report were -
 24 each of the invoices was designated for NL
 25 HYDRO-PUB 2014 outage inquiry. So as a

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1 result, we originally believed that all of
 2 that was directly related to the outages. In
 3 Hydro's reply evidence on page 21, which they
 4 filed on August 7th, 2015, Hydro noted that it
 5 had split and allocated the outage inquiry
 6 fees, the total amount being \$876,000.00, into
 7 four subcategories. Those categories were
 8 outages Phase 1 work; secondly, outages Phase
 9 2 work; thirdly, supplemental capital
 10 applications; and fourthly, supply costs.
 11 Liberty did not have the opportunity to review
 12 the supporting information that was used in
 13 order to make these allocations prior to the
 14 hearing, however, also during the hearing week
 15 of October 26th, we reviewed information that
 16 was compiled by McInnes Cooper and provided to
 17 us that supported these allocations as you see
 18 them. Liberty generally agrees with the
 19 allocation of the legal fees into four
 20 separate categories, that that makes sense;
 21 however, we do conclude the following, that
 22 the full amount of Phase 1 legal fees, as
 23 classified, could have been avoided in the
 24 absence of imprudence, so those should not be
 25 recovered. Secondly, the Phase 2 legal fees

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1 also could have been avoided in the absence of
 2 imprudence, and would fall into the same
 3 category. The supplemental capital work
 4 appears to be related to projects that would
 5 have or should have occurred in the absence of
 6 imprudence and so we would not category them
 7 in the imprudence category for that third
 8 category. The final category is for supply
 9 costs; however, we believe that that category
 10 is mislabelled, in our opinion, and when we
 11 looked at the notes behind that particular
 12 category, we believe that it's actually
 13 related to outage work, and we conclude that
 14 this legal fee category was caused by the
 15 outages and also should not be recovered.
 16 GREENE, Q.C.:
 17 Q. Now Hydro also raised the issue in its reply
 18 evidence of an invoice of about \$14,000.00
 19 related to environmental work at Sunnyside.
 20 Have you now looked at the supporting
 21 information for that invoice and what is your
 22 opinion?
 23 MR. VICKROY:
 24 A. Yes, also during the hearing week of October
 25 26th, Hydro provided additional supporting

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1 information for the one invoice in question.
 2 That invoice was identified as being for
 3 toxicology and chemistry analysis. The
 4 supporting information showed that this work
 5 was performed at a number of sites and also
 6 that some of the work occurred in 2013, rather
 7 than in 2014, and the information we reviewed
 8 supports the conclusion that the work was not
 9 outage related and should be removed from the
 10 list of 2014 costs. That would have been
 11 avoided in the absence of imprudence.
 12 GREENE, Q.C.:
 13 Q. Thank you, Mr. Vickroy. That concludes the
 14 direct-examination for this panel, Mr. Chair.
 15 CHAIRMAN:
 16 Q. I believe we're over to Hydro, is that
 17 correct?
 18 MR. MACDOUGALL:
 19 Q. That's correct, Mr. Chair, thank you very
 20 much.
 21 CROSS-EXAMINATION BY MR. MACDOUGALL:
 22 MR. MACDOUGALL:
 23 Q. Good morning, gentlemen.
 24 MR. MAZZINI:
 25 A. Good morning.

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1 MR. ANTONUK:
 2 A. Good morning.
 3 MR. LAUTENSCHLAGER:
 4 A. Good morning.
 5 MR. VICKROY:
 6 A. Good morning.
 7 MR. MACDOUGALL:
 8 Q. I'm going to start my questions, I'm not sure
 9 if I can pinpoint each one to exactly which
 10 gentleman should respond because some of my
 11 initial questions are generic, but I'll do my
 12 best on the specific subject matter to direct
 13 them to the correct gentleman. Maybe I'll
 14 start, Mr. Mazzini, with you. I think you
 15 would be the appropriate person for this,
 16 would you agree that engineering judgment is
 17 relied on by utility managers and personnel
 18 every day with respect to a number of
 19 decisions which need to be made in the real
 20 time operation of an electric system?
 21 MR. MAZZINI:
 22 A. Absolutely, yes.
 23 MR. MACDOUGALL:
 24 Q. So, for example, operators of generating units
 25 may see discrepancies in unit operation and

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1 they need to make a decision whether to
 2 continue to operate the unit, to plan for a
 3 phase shutdown of the unit, or to plan to shut
 4 the unit down to check the discrepancy?
 5 MR. MAZZINI:
 6 A. Yes.
 7 MR. MACDOUGALL:
 8 Q. And in making those types of determinations of
 9 what to do, would you agree that in part those
 10 individuals would rely on information that was
 11 provided from the equipment manufacturer?
 12 MR. MAZZINI:
 13 A. In part, yes.
 14 MR. MACDOUGALL:
 15 Q. Yes, in part, I'm asking.
 16 MR. MAZZINI:
 17 A. Yes, uh-hm.
 18 MR. MACDOUGALL:
 19 Q. And also the history of the operating unit?
 20 MR. MAZZINI:
 21 A. correct.
 22 MR. MACDOUGALL:
 23 Q. And experience with the particular issue in
 24 the past, if it had occurred or not?
 25 MR. MAZZINI:

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1 A. Yes.
 2 MR. MACDOUGALL:
 3 Q. And the individual's own experience and
 4 knowledge, academic and otherwise?
 5 MR. MAZZINI:
 6 A. I think those are all factors that one would
 7 consider in addressing day to day challenges,
 8 yes.
 9 MR. MACDOUGALL:
 10 Q. Thank you, and despite the best efforts of any
 11 engineer or any operator, not every decision
 12 will necessarily be the ideal or best decision
 13 no matter how hard individuals may strive to
 14 do so?
 15 MR. MAZZINI:
 16 A. Absolutely, and that's the basis for the kind
 17 of decisions we have to struggle through in
 18 reaching prudence conclusions.
 19 MR. MACDOUGALL:
 20 Q. And consistent with the terms of reference for
 21 this prudence review, one of the elements of
 22 the inquiry is to determine whether the
 23 solutions selected were within a range of
 24 reasonable alternatives, correct?
 25 MR. MAZZINI:

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<p>1 A. Correct.</p> <p>2 MR. MACDOUGALL:</p> <p>3 Q. And would you agree that Hydro's decisions and</p> <p>4 its actions must be focused on promoting the</p> <p>5 delivery of safe, adequate, reliable and least</p> <p>6 cost service to its customers?</p> <p>7 MR. MAZZINI:</p> <p>8 A. Those are - you mentioned several priorities,</p> <p>9 and the balancing of those priorities is the</p> <p>10 challenge utility managers face, yes.</p> <p>11 MR. MACDOUGALL:</p> <p>12 Q. And you would agree, I think you used the word</p> <p>13 "balancing" there, that all utilities in</p> <p>14 carrying out their decisions need to make</p> <p>15 trade offs between cost and service</p> <p>16 reliability risk on an ongoing basis?</p> <p>17 MR. MAZZINI:</p> <p>18 A. Absolutely.</p> <p>19 MR. MACDOUGALL:</p> <p>20 Q. Mr. Mazzini, we went briefly through your</p> <p>21 qualifications earlier today. One thing I</p> <p>22 didn't note in particular, but it may be</p> <p>23 there, have you ever operated a generating</p> <p>24 plant?</p> <p>25 MR. MAZZINI:</p>	<p>1 MR. MACDOUGALL:</p> <p>2 Q. And you don't have any academic engineering</p> <p>3 qualifications, correct?</p> <p>4 MR. ANTONUK:</p> <p>5 A. That's correct.</p> <p>6 MR. MACDOUGALL:</p> <p>7 Q. And Mr. Vickroy, likewise you would have not,</p> <p>8 I assume, based on your qualifications,</p> <p>9 operated a generating plant?</p> <p>10 MR. VICKROY:</p> <p>11 A. That's correct.</p> <p>12 MR. MACDOUGALL:</p> <p>13 Q. Thank you. Have any of you gentlemen worked</p> <p>14 in Newfoundland prior to your engagement to</p> <p>15 carry out the outage review with respect to</p> <p>16 the January 2014 outages?</p> <p>17 MR. MAZZINI:</p> <p>18 A. No.</p> <p>19 MR. ANTONUK:</p> <p>20 A. No.</p> <p>21 MR. LAUTENSCHLAGER:</p> <p>22 A. No.</p> <p>23 MR. VICKROY:</p> <p>24 A. No.</p> <p>25 MR. MACDOUGALL:</p>
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<p>1 A. I've been involved with operations throughout</p> <p>2 my career. I have never on a sustained basis</p> <p>3 been an operator, but I've participated in</p> <p>4 operations, have had temporary assignments</p> <p>5 operating plants, and since being a</p> <p>6 consultant, have reviewed operations at many</p> <p>7 plants.</p> <p>8 MR. MACDOUGALL:</p> <p>9 Q. Were you ever an actual plant operator in a</p> <p>10 position where you were a plant operator of a</p> <p>11 generating plant?</p> <p>12 MR. MAZZINI:</p> <p>13 A. For only short periods of time.</p> <p>14 MR. MACDOUGALL:</p> <p>15 Q. And I take it, Mr. Lautenschlager, did you</p> <p>16 ever operate a generating plant?</p> <p>17 MR. LAUTENSCHLAGER:</p> <p>18 A. No, I haven't.</p> <p>19 MR. MACDOUGALL:</p> <p>20 Q. And I take it, based on the qualifications of</p> <p>21 you, Mr Antonuk, you have not either?</p> <p>22 MR. ANTONUK:</p> <p>23 A. No. In my years as a consultant, I've</p> <p>24 reviewed the effectiveness of operations, but</p> <p>25 I've never been a plant operator.</p>	<p>1 Q. And before that work, how familiar were you</p> <p>2 with the Newfoundland and Labrador electricity</p> <p>3 system and how it operated?</p> <p>4 MR. MAZZINI:</p> <p>5 A. I'll start. I had very little familiarity. I</p> <p>6 had an assignment many years ago that did some</p> <p>7 work on what was then Newfoundland and</p> <p>8 Labrador - let me say, on Churchill Falls, but</p> <p>9 other than that, I've had no background in the</p> <p>10 system here.</p> <p>11 MR. ANTONUK:</p> <p>12 A. I think, I've for a long had a very general</p> <p>13 understanding, informed somewhat more by work</p> <p>14 in Nova Scotia where Newfoundland is an</p> <p>15 occasional topic of discussion, but not a</p> <p>16 grounding that I would have considered</p> <p>17 appropriate to form any kind of conclusions or</p> <p>18 judgment about it before coming here and</p> <p>19 studying it.</p> <p>20 MR. LAUTENSCHLAGER:</p> <p>21 A. I was not familiar with the operation in</p> <p>22 Newfoundland before we commenced our work.</p> <p>23 MR. VICKROY:</p> <p>24 A. I was not familiar with the Newfoundland</p> <p>25 system before this job.</p>

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<p>1 MR. MACDOUGALL:</p> <p>2 Q. Thank you, gentlemen. Now I'm just going to</p> <p>3 change topics and go to a bit of discussion</p> <p>4 about the weather. Again I'm not sure which</p> <p>5 one of you gentlemen are going to be best to</p> <p>6 respond to these, but maybe when I pull up the</p> <p>7 reference, we can determine that. I would</p> <p>8 like to go to page 19 of your July 26th, 2015,</p> <p>9 report. Gentlemen, I'm going to ask some</p> <p>10 questions now for the next little while</p> <p>11 dealing with Figure 3.4 and going back the</p> <p>12 next couple of pages, and Ms. Gray maybe can</p> <p>13 just go to the previous page, Table 3.3, and</p> <p>14 then back on page 17, Table 3.1. So who would</p> <p>15 be best to discuss this information from your</p> <p>16 report?</p> <p>17 MR. MAZZINI:</p> <p>18 A. That is my material.</p> <p>19 MR. MACDOUGALL:</p> <p>20 Q. Okay. Then if we could go to Figure 3.4, and</p> <p>21 at the top of the page we see that that is</p> <p>22 identified as daily low temperature at St.</p> <p>23 John's, correct?</p> <p>24 MR. MAZZINI:</p> <p>25 A. Yes.</p>	<p>1 first line, "When considering the worst</p> <p>2 temperature in each of the last 30 years, -8</p> <p>3 degrees Celsius is the average of the worst</p> <p>4 annual temperature over those 30 years",</p> <p>5 correct?</p> <p>6 MR. MAZZINI:</p> <p>7 A. Yes.</p> <p>8 MR. MACDOUGALL:</p> <p>9 Q. And then we go down a bit in the paragraph</p> <p>10 after you indicate that specific wind chill</p> <p>11 data was not available, and then you say about</p> <p>12 the fifth line, "Given that the -8 degree</p> <p>13 Celsius average is a worst case in each year</p> <p>14 considered, it would be statistically unusual</p> <p>15 to expect to see it develop on more than a few</p> <p>16 days in any given year", correct?</p> <p>17 MR. MAZZINI:</p> <p>18 A. Those are my words, yes.</p> <p>19 MR. MACDOUGALL:</p> <p>20 Q. And then your conclusion is, "Yet the chart is</p> <p>21 clear in the post-event period for the balance</p> <p>22 of the first quarter, 78 days, the temperature</p> <p>23 was lower than -8 degrees Celsius on 50 of</p> <p>24 those days", correct?</p> <p>25 MR. MAZZINI:</p>
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<p>1 MR. MACDOUGALL:</p> <p>2 Q. And this covers the period, January 1, 2014</p> <p>3 all the way through to March 30, 2014,</p> <p>4 correct?</p> <p>5 MR. MAZZINI:</p> <p>6 A. Yes, as I recall, that's the period for which</p> <p>7 Hydro was seeking recovery of supply related</p> <p>8 costs.</p> <p>9 MR. MACDOUGALL:</p> <p>10 Q. And it's the first quarter of that year?</p> <p>11 MR. MAZZINI:</p> <p>12 A. First quarter of 2014, yes.</p> <p>13 MR. MACDOUGALL:</p> <p>14 Q. Thank you. Now if we can go back a page, to</p> <p>15 page 18, and the last paragraph here on the</p> <p>16 page, this is your lead in discussion with the</p> <p>17 Figure 3.4. If you can just take a look at</p> <p>18 that, it starts, "We next examined the effect</p> <p>19 of weather", so this is a paragraph in which</p> <p>20 you're discussing the chart that we were just</p> <p>21 looking at, correct?</p> <p>22 MR. MAZZINI:</p> <p>23 A. That's correct, yes.</p> <p>24 MR. MACDOUGALL:</p> <p>25 Q. Okay. Now here you state at the end of the</p>	<p>1 A. That's what the data showed, yes.</p> <p>2 MR. MACDOUGALL:</p> <p>3 Q. And if we can turn back again to page 19, and</p> <p>4 the sentence directly below Figure 3.4, which</p> <p>5 is what we were just discussing, states, "One</p> <p>6 can clearly describe such circumstances as</p> <p>7 extraordinary", correct?</p> <p>8 MR. MAZZINI:</p> <p>9 A. That was my opinion, yes.</p> <p>10 MR. MACDOUGALL:</p> <p>11 Q. And I assume that remains your opinion?</p> <p>12 MR. MAZZINI:</p> <p>13 A. It does.</p> <p>14 MR. MACDOUGALL:</p> <p>15 Q. Thank you. Now the reference you made</p> <p>16 directly prior to this figure was that in the</p> <p>17 post-event period, i.e. the balance of the</p> <p>18 quarter, the temperature was lower than -8</p> <p>19 degrees Celsius, correct? We can go back to</p> <p>20 the paragraph. You talk about 78 days, and</p> <p>21 you say here, "The post-event period for the</p> <p>22 balance of the first quarter, 78 days, the</p> <p>23 temperature was lower than -8 degrees</p> <p>24 Celsius".</p> <p>25 MR. MAZZINI:</p>

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<p>1 A. On occasions, yes.</p> <p>2 MR. MACDOUGALL:</p> <p>3 Q. On 50 days?</p> <p>4 MR. MAZZINI:</p> <p>5 A. Yes.</p> <p>6 MR. MACDOUGALL:</p> <p>7 Q. Okay, but this is the post-event period, so</p> <p>8 this is the 78 days of the quarter following</p> <p>9 the first 12 days of the quarter?</p> <p>10 MR. MAZZINI:</p> <p>11 A. Correct.</p> <p>12 MR. MACDOUGALL:</p> <p>13 Q. So let's talk about those because you didn't</p> <p>14 make your comments in relation to those days.</p> <p>15 So if we look at Figure 3.4 on page 19 again,</p> <p>16 now the dashed red line denotes the -8 degrees</p> <p>17 C, correct?</p> <p>18 MR. MAZZINI:</p> <p>19 A. Yes.</p> <p>20 MR. MACDOUGALL:</p> <p>21 Q. And that is the average of the worst annual</p> <p>22 temperature over the prior 30 years?</p> <p>23 MR. MAZZINI:</p> <p>24 A. Yes.</p> <p>25 MR. MACDOUGALL:</p>	<p>1 develop on more than a few days", correct?</p> <p>2 MR. MAZZINI:</p> <p>3 A. That was my opinion, yes.</p> <p>4 MR. MACDOUGALL:</p> <p>5 Q. Yes, and what did you mean there by "more than</p> <p>6 a few days", statistically unusual to see it</p> <p>7 on more than three/four days?</p> <p>8 MR. MAZZINI:</p> <p>9 A. Well, I did not do a statistical analysis.</p> <p>10 This is an intuitive comment. Intuitively, I</p> <p>11 wouldn't have expected it to be as many as it</p> <p>12 was.</p> <p>13 MR. MACDOUGALL:</p> <p>14 Q. No where near as many as it was, correct?</p> <p>15 MR. MAZZINI:</p> <p>16 A. I think that's fair to say, that was my</p> <p>17 feeling, yes.</p> <p>18 MR. MACDOUGALL:</p> <p>19 Q. And yet in the winter of January 2014, in the</p> <p>20 first quarter this happened on 59 days, 9 days</p> <p>21 in the first 12 days, and 50 in the remaining</p> <p>22 78, correct?</p> <p>23 MR. MAZZINI:</p> <p>24 A. I -</p> <p>25 (10:45 a.m.)</p>
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<p>1 Q. Okay. For the first 12 days of January, 9 of</p> <p>2 those 12 days were below the average of the</p> <p>3 worst annual temperature over the prior 30</p> <p>4 years, correct?</p> <p>5 MR. MAZZINI:</p> <p>6 A. Yes.</p> <p>7 MR. MACDOUGALL:</p> <p>8 Q. Okay, and as you noted, we just went to it on</p> <p>9 page 18, 50 of the following 78 days were</p> <p>10 colder than that average, correct?</p> <p>11 MR. MAZZINI:</p> <p>12 A. Okay.</p> <p>13 MR. MACDOUGALL:</p> <p>14 Q. And, in fact, if you look at this data, Figure</p> <p>15 3.4, 6 days in a row from January 1 to January</p> <p>16 6, were colder than that worst average over</p> <p>17 the previous 30 years, correct?</p> <p>18 MR. MAZZINI:</p> <p>19 A. Yes.</p> <p>20 MR. MACDOUGALL:</p> <p>21 Q. Now again you said at the bottom of page 18,</p> <p>22 and maybe we can go there, "Given that the - 8</p> <p>23 degrees Celsius average is a worst case in</p> <p>24 each year considered, it would be</p> <p>25 statistically unusual to expect to see it</p>	<p>1 MR. MACDOUGALL:</p> <p>2 Q. We just went through that analysis.</p> <p>3 MR. MAZZINI:</p> <p>4 A. Okay, I'll agree, uh-hm.</p> <p>5 MR. MACDOUGALL:</p> <p>6 Q. That's exactly what we just went through,</p> <p>7 correct?</p> <p>8 MR. MAZZINI:</p> <p>9 A. Okay.</p> <p>10 MR. MACDOUGALL:</p> <p>11 Q. And, in fact, for the 6 days from January 1 to</p> <p>12 January 6, it was lower than that average,</p> <p>13 correct?</p> <p>14 MR. MAZZINI:</p> <p>15 A. I believe so, yes.</p> <p>16 MR. MACDOUGALL:</p> <p>17 Q. And in your report, though, you only referred</p> <p>18 to the post-event period, the last 78 days,</p> <p>19 you didn't comment on what the weather was in</p> <p>20 relation to this average for the first 12</p> <p>21 days?</p> <p>22 MR. MAZZINI:</p> <p>23 A. The reason for that was, I was asked to look</p> <p>24 at the supply related costs that Hydro was</p> <p>25 requesting. I was surprised that Hydro was</p>

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1 requesting those costs for the entire quarter.
 2 I had expected to see significant costs in the
 3 beginning of the quarter because of the event.
 4 I did not expect to see significant costs
 5 after that, so I broke my analysis down into
 6 two parts. The first 12 days, and then the
 7 balance of the quarter. I was starting with
 8 the assumption that I can easily see how there
 9 would be supply related costs in the
 10 beginning, but I couldn't see when I started
 11 this why there would be at the rest of the
 12 period. So I was starting with the idea that
 13 maybe Hydro was incorrect for the balance of
 14 the quarter. That's why I did this analysis
 15 looking at those other 78 days and I
 16 concluded, as you know, that there was no
 17 basis for imprudence based on the fact of the
 18 weather observations you're discussing.
 19 MR. MACDOUGALL:
 20 Q. Correct, and as you just noted, you said you
 21 would have expected supply related costs due
 22 to the weather in the first 12 day period?
 23 MR. MAZZINI:
 24 A. Due to the weather, due to the outages.
 25 MR. MACDOUGALL:

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1 Q. And I believe you actually say on page 19 in
 2 the last sentence of the paragraph under Table
 3 3.5, "Weather, which is not in Hydro's
 4 control, had a major impact", correct?
 5 MR. MAZZINI:
 6 A. Yes.
 7 MR. MACDOUGALL:
 8 Q. Okay. I'd like to now just spend a few
 9 moments on the weather conditions that
 10 prevailed specifically at the Holyrood
 11 generating station during the January 2013
 12 Holyrood outage, and here you were talking
 13 earlier in your direct about the loss of AC
 14 power at Holyrood on that day, correct?
 15 MR. MAZZINI:
 16 A. Yes.
 17 MR. MACDOUGALL:
 18 Q. And I take it, Mr. Mazzini, that you were
 19 aware that there was a severe localized storm
 20 around the Holyrood generating station on that
 21 day?
 22 MR. MAZZINI:
 23 A. Yes.
 24 MR. MACDOUGALL:
 25 Q. If we could bring up - this was filed on the

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1 10th, a document that I'd like to give an
 2 information number. This is the January 1,
 3 2013, power system outage report which was
 4 filed under heading, "Events of January 2013",
 5 as part of Hydro's March 24, 2014, interim
 6 report.
 7 MS. GLYNN:
 8 Q. Sorry, I needed to confirm the number. That
 9 would be Information 39.
 10 MR. MACDOUGALL:
 11 Q. Thank you very much. Here if we could go to
 12 page 1, and it states starting at line 8, "The
 13 power system events began early on the morning
 14 of January 11, 2013, at the Holyrood
 15 generating and terminal stations, where high
 16 winds and heavy salt contaminated snow created
 17 electrical faults and significant disturbances
 18 resulting in the loss of all three generating
 19 units and trips and lockouts of the 138 kV and
 20 230 kV busses. This effectively isolated the
 21 Holyrood generating and terminal stations from
 22 the remainder of the grid. There was a
 23 significant customer impact primarily to
 24 customers on the Avalon Peninsula", correct?
 25 MR. MAZZINI:

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1 A. That's what it says, yes.
 2 MR. MACDOUGALL:
 3 Q. And you were aware of those weather
 4 conditions?
 5 MR. MAZZINI:
 6 A. I was.
 7 MR. MACDOUGALL:
 8 Q. And if we could bring up the transcript of
 9 November 2nd, and if we could go to page 96
 10 towards the bottom, and here, Mr. Mazzini,
 11 you'll see at line 16, the Chair asks Mr.
 12 LeDrew from Hydro about the issue of whether
 13 or not the plows were taken off the main road
 14 and nobody could get down to the Holyrood
 15 plant on that day, and if we could turn to
 16 page 97, we can see that Mr. LeDrew explains
 17 starting at line 6 that, "Hydro actually
 18 directed its own contractor to plow the
 19 province's road from the generating plant up
 20 to Route 60, which is about three kilometres
 21 of road that had drifted in solid. Then later
 22 that morning, early afternoon, the Department
 23 of Highways finally had enough of Route 60
 24 cleared that Hydro could actually get people
 25 up to the top of the access road, and then

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1 down to the terminal station itself". Then
 2 you will see Mr. LeDrew continues on, "So a
 3 really rare event that you physically couldn't
 4 get a vehicle through a stretch", and I assume
 5 he was going to end that with road or highway.
 6 Do you see that?
 7 MR. MAZZINI:
 8 A. I see that, yes.
 9 MR. MACDOUGALL:
 10 Q. And do you disagree that it would be
 11 considered a fairly rare event in those
 12 circumstances, weather of that type and
 13 implications of that type?
 14 MR. MAZZINI:
 15 A. Frankly, I'm not enough familiar with the
 16 history of Newfoundland to say whether that's
 17 an unusual event. There are clearly blizzard
 18 conditions in a lot of parts of North America.
 19 I don't know how frequently these kind of
 20 conditions happen here.
 21 MR. MACDOUGALL:
 22 Q. So Mr. LeDrew, in making the statement that
 23 the inability for the Department of Highways
 24 to even clear the road and for them to go up
 25 and clear the road was a really rare event in

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1 his experience at his time at that station,
 2 correct?
 3 MR. MAZZINI:
 4 A. Well, I would take Mr. LeDrew's word on it. I
 5 live in Pennsylvania, and it's happened to me
 6 on several occasions that the State couldn't
 7 clear the highway in front of my house.
 8 MR. MACDOUGALL:
 9 Q. To a power generating plant?
 10 MR. MAZZINI:
 11 A. I don't live at a power generating plant, no.
 12 MR. MACDOUGALL:
 13 Q. No, thank you. This weather caused
 14 significant issues in the Holyrood terminal
 15 station, correct?
 16 MR. MAZZINI:
 17 A. The weather did not cause the issues that I
 18 investigated. They may - they certainly did,
 19 the ones that Mr. Lautenschlager looked at,
 20 but I don't believe they impacted my area of
 21 study.
 22 MR. MACDOUGALL:
 23 Q. Maybe I'll direct these to Mr. Lautenschlager,
 24 because there was a loss of AC power into the
 25 Holyrood station, correct?

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1 MR. MAZZINI:
 2 A. That's correct, yes.
 3 MR. MACDOUGALL:
 4 Q. And that was caused, in large part, due to
 5 issues at the Holyrood terminal station caused
 6 by heavy salt contaminated snow, correct?
 7 MR. LAUTENSCHLAGER:
 8 A. That's what I understand, yes.
 9 MR. MACDOUGALL:
 10 Q. Okay, so there is a direct link between your
 11 findings, Mr. Mazzini, and this issue,
 12 correct?
 13 MR. MAZZINI:
 14 A. My findings picked up with the loss of all
 15 site power incident, and how the plant was
 16 able to respond to it.
 17 MR. MACDOUGALL:
 18 Q. And the loss of the power was in large part
 19 due to flashovers in the station, which caused
 20 the lockouts to operate, correct, Mr.
 21 Lautenschlager?
 22 MR. LAUTENSCHLAGER:
 23 A. That's what I understand, yes.
 24 MR. MACDOUGALL:
 25 Q. And that could happen under those

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1 circumstances, and did happen under those
 2 weather circumstances, correct?
 3 MR. LAUTENSCHLAGER:
 4 A. That's what I understand, yes.
 5 MR. MACDOUGALL:
 6 Q. But you don't disagree with it? You don't
 7 just understand that -
 8 MR. LAUTENSCHLAGER:
 9 A. No, I don't disagree with it.
 10 MR. MACDOUGALL:
 11 Q. Thank you. I'd like to go now to page 10 of
 12 your reply evidence of September 17, 2015, and
 13 at line 18, there was a statement made here,
 14 "Hydro has also reported sufficient
 15 information from which to conclude that it has
 16 no basis following investigation to attribute
 17 the breaker failure to cold weather, in any
 18 event". Which one of you gentlemen was the
 19 author of that comment?
 20 MR. LAUTENSCHLAGER:
 21 A. Which breaker failure?
 22 MR. MACDOUGALL:
 23 Q. It's your comment, Mr. Lautenschlager, it's
 24 breaker B1L03, or - sorry, it's Liberty's
 25 comment. I'm now asking you which one of you

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1 wrote it, just so that I can direct my
 2 questions to the right individual.
 3 MR. LAUTENSCHLAGER:
 4 A. B1L03 did not fail because of salt
 5 contamination.
 6 MR. MACDOUGALL:
 7 Q. I'm not talking about salt contamination.
 8 MR. LAUTENSCHLAGER:
 9 A. Because we were talking about that before, and
 10 now we've changed gears here.
 11 MR. MACDOUGALL:
 12 Q. Yes, I have, Mr. Lautenschlager.
 13 MR. LAUTENSCHLAGER:
 14 A. Okay. So B1L03 failed for unknown causes. The
 15 breakers are designed to operate in cold
 16 weather, they'd been operating in cold weather
 17 for 40 years, and the purpose of preventing
 18 maintenance is to assure that the breakers
 19 will operate in the conditions that they were
 20 designed for.
 21 MR. MACDOUGALL:
 22 Q. Okay, but if we could stick with my specific
 23 question. First off, did you write this
 24 sentence then, I guess, are you the right
 25 person to - I'd like to know who was the

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1 author of that sentence?
 2 MR. LAUTENSCHLAGER:
 3 A. Yeah, I'll take responsibility for this.
 4 MR. MACDOUGALL:
 5 Q. Okay, but the statement here is that, "Hydro
 6 has reported sufficient information from which
 7 to conclude that it", Hydro, "has no basis
 8 following investigation to attribute the
 9 breaker failure to cold weather, in any
 10 event". So you're making this categorical
 11 statement that Hydro has sufficient
 12 information to conclude that this was not
 13 based on cold weather, and can you advise what
 14 in the record you thought gave Hydro that
 15 knowledge?
 16 MR. LAUTENSCHLAGER:
 17 A. They performed the investigation and found no
 18 evidence that the cold weather caused the
 19 malfunction.
 20 MR. MACDOUGALL:
 21 Q. Okay, well, we're going to probe that in some
 22 detail here, Mr. Lautenschlager. If we can go
 23 to Undertaking 78.
 24 CHAIRMAN:
 25 Q. Do you want - I think this might be a good

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1 time to take a break.
 2 MR. MACDOUGALL:
 3 Q. Excellent, Mr. Chair.
 4 (RECESS - 10: 58 a.m.)
 5 (RECONVENED - 11:34 a.m.)
 6 CHAIRMAN:
 7 Q. Sir, we are back to you.
 8 MR. MACDOUGALL:
 9 Q. Thank you very much, Mr. Chair. Gentlemen,
 10 I'm just going to go back a little bit here
 11 since the break, because over the break, I had
 12 a chance to just look at a couple of things
 13 that arose out of the direct this morning of
 14 Mr. Mazzini, and some of our subsequent
 15 discussion. I just want to check, and we
 16 might have to use the transcript tomorrow
 17 morning to do this, but Mr. Mazzini, I believe
 18 you had said, and if we could first - maybe we
 19 could go to page 17 of your report, and if we
 20 can go to the top of that page, Table 3.1. I
 21 think you said when you were developing your
 22 estimate with respect to the potential supply
 23 cost disallowance figure you came up with,
 24 that you used the last four days there, 9
 25 January to 12 January, but then you said you

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1 could have used the next four days as well
 2 because they were similar. Did I hear that
 3 correctly, or maybe you can correct me if I'm
 4 wrong?
 5 MR. MAZZINI:
 6 A. When I said the next four days, I'm sorry, I
 7 meant January 9th through 12th.
 8 MR. MACDOUGALL:
 9 Q. But those are the days you did use?
 10 MR. MAZZINI:
 11 A. Those are the days I used, yes.
 12 MR. MACDOUGALL:
 13 Q. So you weren't suggesting that you could have
 14 also used the four following days?
 15 MR. MAZZINI:
 16 A. No, I did not look at that, no.
 17 MR. MACDOUGALL:
 18 Q. Okay, and then one thing you said was, one
 19 differentiation, I believe you made, was you
 20 said the first four days were different from
 21 the four days in question, which are the four
 22 days in - I think Ms. Greene had called it
 23 "pink", so pink or a pink-like colour there,
 24 because you said the days beforehand were as
 25 much as 7 degrees colder, correct?

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1 MR. MAZZINI:
 2 A. I said on average they were more than 7
 3 degrees colder, yes.
 4 MR. MACDOUGALL:
 5 Q. Correct, and you can see, though, also on some
 6 of the other days, for example, the last day
 7 of the period, January 8th, would be - for
 8 example, if you look at the January 12th date
 9 which you used, that would be in that instance
 10 11 degrees warmer, correct?
 11 MR. MAZZINI:
 12 A. On that one day, yes.
 13 MR. MACDOUGALL:
 14 Q. Correct.
 15 MR. MAZZINI:
 16 A. On an average basis, there's about a 2 degree
 17 difference between the middle four day period
 18 and the last four day period.
 19 MR. MACDOUGALL:
 20 Q. Correct, thank you. Now if we could go back
 21 to Undertaking 78, and again this was Appendix
 22 7 to Schedule 8, to Hydro's March 2014 report
 23 to the Board on the January 14 outages, and if
 24 we could go to page 58 of 78 of the attached
 25 document. Actually, page 56, please, Ms.

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1 Gray, and here we see, if you scroll down - if
 2 you go to the top, actually, Ms. Gray, if you
 3 could bring that up, here we see, "Nalcor
 4 Energy" and if we scroll down, we have an
 5 "ABB" job number there, correct?
 6 MR. LAUTENSCHLAGER:
 7 A. Yes.
 8 MR. MACDOUGALL:
 9 Q. And then if we scroll down farther, it says,
 10 "Breaker ID and location, B1L03, at Sunnyside
 11 terminal station", correct?
 12 MR. LAUTENSCHLAGER:
 13 A. Yes.
 14 MR. MACDOUGALL:
 15 Q. And then if we can continue down, we see,
 16 "Purpose for visit, investigate B1L03, breaker
 17 failed to trip", correct?
 18 MR. LAUTENSCHLAGER:
 19 A. Yes.
 20 MR. MACDOUGALL:
 21 Q. And then this is signed off by a Mr. Scott
 22 Morris of ABB, correct?
 23 MR. LAUTENSCHLAGER:
 24 A. Yes.
 25 MR. MACDOUGALL:

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1 Q. Okay, now if we could go to page 58 of 78, and
 2 here in the middle of the page, you'll see
 3 that ABB, in their report, showed weather data
 4 from Environment Canada for the Gander
 5 airport, correct?
 6 MR. LAUTENSCHLAGER:
 7 A. Yes.
 8 MR. MACDOUGALL:
 9 Q. And then if we go directly below that, you'll
 10 see it says, "Further detailed investigation
 11 on the B1L03 breaker was required to try and
 12 determine a cause for not tripping. ABB was
 13 contacted to provide support for the
 14 investigation", correct?
 15 MR. LAUTENSCHLAGER:
 16 A. Yes.
 17 MR. MACDOUGALL:
 18 Q. Okay. Then if we go to page 69 of 78, and
 19 under the heading, "Conclusion", the first
 20 paragraph of the ABB representative's
 21 conclusion is as follows, "I believe that the
 22 three pole control boxes on the B1L03 breakers
 23 did not unlatch when the trip command was sent
 24 during the event. I believe that the cold
 25 temperatures that the breaker was experiencing

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1 for days up to the event, and the condition of
 2 the pole control boxes, are factors affecting
 3 the breaker operation. The pole control boxes
 4 should have operated under these conditions,
 5 but may be slow". So ABB's conclusion was
 6 that, at least in part, they felt that the
 7 cold temperatures that the breaker was
 8 experiencing for days up to the event is a
 9 factor affecting the breaker operation,
 10 correct?
 11 MR. LAUTENSCHLAGER:
 12 A. Yes, but not a cause.
 13 MR. MACDOUGALL:
 14 Q. No, it's a factor affecting the breaker
 15 operation, correct?
 16 MR. LAUTENSCHLAGER:
 17 A. Yes.
 18 MR. MACDOUGALL:
 19 Q. It's a factor?
 20 MR. LAUTENSCHLAGER:
 21 A. Yes.
 22 MR. MACDOUGALL:
 23 Q. Affecting the breaker's operation that did not
 24 unlatch when the trip command was sent during
 25 the event, correct?

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1 MR. LAUTENSCHLAGER:
 2 A. But it's not a cause, it's a condition that
 3 was occurring at the time the breaker was
 4 designed to operate in that condition.
 5 MR. MACDOUGALL:
 6 Q. Correct, but it was a factor affecting its
 7 operation?
 8 MR. LAUTENSCHLAGER:
 9 A. I agree with that.
 10 MR. MACDOUGALL:
 11 Q. Okay, and if we could go down to the second
 12 last sentence of the conclusion and it also
 13 states there, just at the bottom of the
 14 conclusion, "The problem is probably
 15 intermittent and I also believe temperature
 16 related. This would explain why things worked
 17 okay with no problems". That was ABB's
 18 conclusion, correct?
 19 MR. LAUTENSCHLAGER:
 20 A. Yes.
 21 MR. MACDOUGALL:
 22 Q. Thank you. Now the ABB Report is an appendix
 23 to Hydro's root cause investigation for the
 24 Sunnyside transformer fire. It was an
 25 appendix to Hydro's root cause investigation

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1 report.
 2 MR. LAUTENSCHLAGER:
 3 A. Say that again.
 4 MR. MACDOUGALL:
 5 Q. I'm saying, the ABB Report we're looking at
 6 was an appendix to Hydro's root cause
 7 investigation report for the Sunnyside
 8 transformer?
 9 MR. LAUTENSCHLAGER:
 10 A. That's right.
 11 MR. MACDOUGALL:
 12 Q. You're aware of that?
 13 MR. LAUTENSCHLAGER:
 14 A. That's right.
 15 MR. MACDOUGALL:
 16 Q. Thank you. Then if we could bring that
 17 document up, which was also filed on November
 18 10, that's the actual root cause investigation
 19 of system disturbances, and if we could give
 20 that document an information number as well.
 21 MS. GLYNN:
 22 Q. That will be Information 40.
 23 MR. MACDOUGALL:
 24 Q. Gentlemen, did one of you review this report
 25 as part of your work on the outage review or

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1 maybe more than one of you?
 2 MR. LAUTENSCHLAGER:
 3 A. Yes, I did.
 4 MR. MACDOUGALL:
 5 Q. Okay, and this report was based on a root
 6 cause analysis carried out as a TapRoot
 7 investigation, correct?
 8 MR. LAUTENSCHLAGER:
 9 A. Yes.
 10 MR. MACDOUGALL:
 11 Q. And if we can go to page 1, starting at the
 12 top sentence, this here says, "TapRoot is a
 13 highly structured investigative process
 14 designed to focus on the identification of
 15 causal factors and specific problems of
 16 clearly specified events", correct?
 17 MR. LAUTENSCHLAGER:
 18 A. Yes.
 19 MR. MACDOUGALL:
 20 Q. And if we go down to line 7, "TapRoot is
 21 recognized as industry best practices for
 22 investigative processes".
 23 MR. LAUTENSCHLAGER:
 24 A. Yes, and I agree with that.
 25 MR. MACDOUGALL:

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1 Q. You're one question ahead of me, thank you
 2 very much, Mr. Lautenschlager. If we can go
 3 back then to your reply evidence of September
 4 17th, and go back to page 10, where we had
 5 been before, and this was the reference here
 6 at line 18 that started my questions here,
 7 however, in the question itself, it says,
 8 "Hydro observes at page 13 of its reply
 9 evidence the importance of the fact that Hydro
 10 experienced sustained cold weather during much
 11 of the outage period which can have an impact
 12 on circuit breaker performance", correct?
 13 MR. LAUTENSCHLAGER:
 14 A. Yes.
 15 MR. MACDOUGALL:
 16 Q. So that was Hydro's statement that it could
 17 have an impact on circuit breaker performance,
 18 correct?
 19 MR. LAUTENSCHLAGER:
 20 A. Yes.
 21 MR. MACDOUGALL:
 22 Q. And that's consistent with the ABB comments
 23 provided to Hydro in the reports, that it
 24 could have an impact on circuit breaker
 25 performance, correct, it could affect them?

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<p>1 MR. LAUTENSCHLAGER: 2 A. I disagree. The breakers - it was a factor, 3 not necessarily - the breaker is designed to 4 operate in that cold weather. Therefore, if 5 the breaker doesn't operate in that cold 6 weather, that's not because of the cold 7 weather, it's just a condition that was 8 occurring. Now when they say "impact", I 9 don't understand the term "impact".</p> <p>10 MR. MACDOUGALL: 11 Q. Okay.</p> <p>12 MR. LAUTENSCHLAGER: 13 A. Impact could be just this was a condition that 14 was occurring when the breaker malfunctioned. 15 That's all I can say.</p> <p>16 MR. MACDOUGALL: 17 Q. Okay, so that was your - you didn't understand 18 the word "impact". You took this sentence to 19 state that Hydro was saying the cold weather 20 caused the event, is that how you read that, a 21 mere statement that it can have an impact -</p> <p>22 MR. LAUTENSCHLAGER: 23 A. Well, yeah, the word "impact" would lead me to 24 believe that they're blaming it on cold 25 weather.</p>	<p>1 MR. MACDOUGALL: 2 Q. Thank you, Mr. Lautenschlager.</p> <p>3 MR. MACDOUGALL: 4 Q. If we could go to - I filed this, Newfoundland 5 Power's Interim Report. Again it was filed on 6 the 10th of March, 2014, in the outage 7 inquiry. If we could give that an information 8 number.</p> <p>9 MS. GLYNN: 10 Q. Number 41. 11 (11:45 a.m.)</p> <p>12 MR. MACDOUGALL: 13 Q. Thank you, and if we could go to page 25, this 14 was Newfoundland Power's Interim Report in the 15 outage inquiry.</p> <p>16 MR. ANTONUK: 17 A. Page?</p> <p>18 MR. MACDOUGALL: 19 Q. Page 25, Mr. Antonuk, sorry. If we could look 20 at line 9, Newfoundland Power's comments here 21 were, "There were nine substation breakers or 22 reclosures which failed to operate correctly 23 during the rotating power outages during 24 January 2-8, 2014. These failures prolonged 25 the duration of customer outages. The</p>
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<p>1 MR. MACDOUGALL: 2 Q. Would lead you to believe that -</p> <p>3 MR. LAUTENSCHLAGER: 4 A. Impact.</p> <p>5 MR. MACDOUGALL: 6 Q. But the word "effect" wouldn't lead you to 7 believe that. So if ABB said, "It would have 8 an effect on breaker performance", what would 9 be the difference? I just don't know how you 10 made your conclusion.</p> <p>11 MR. LAUTENSCHLAGER: 12 A. Well, all I can say is the cold weather was a 13 condition that was occurring. The breaker was 14 designed to operate. If the cold weather 15 affected the breaker, that was a malfunction 16 of the breaker.</p> <p>17 MR. MACDOUGALL: 18 Q. Which could have been impacted?</p> <p>19 MR. LAUTENSCHLAGER: 20 A. The breaker should operate in cold weather. 21 Okay, if the weather was too hot, for 22 instance, it could affect - have an impact on 23 the breaker. It's just - nowhere does this 24 indicate that this was a cause of the 25 malfunction, that's all.</p>	<p>1 majority of the failures were due to the cold 2 temperatures affecting the operating 3 mechanisms". So you had read this report 4 previously?</p> <p>5 MR. LAUTENSCHLAGER: 6 A. Yes.</p> <p>7 MR. MACDOUGALL: 8 Q. And do you agree with Newfoundland Power, that 9 the majority of the failures that they 10 experienced on their breakers or reclosures 11 were due to the cold temperatures affecting 12 the operating mechanisms?</p> <p>13 MR. LAUTENSCHLAGER: 14 A. As I recall, the breakers should have 15 functioned in the cold weather, but the 16 heaters weren't working in those reclosures, 17 as I recall, and so, therefore, the cause was 18 not the cold weather, the cause was because 19 Newfoundland Power had failed to notice that 20 their heaters - I believe this is true, that 21 their heaters were not working.</p> <p>22 MR. MACDOUGALL: 23 Q. And did you indicate that in your report on 24 Newfoundland Power?</p> <p>25 MR. LAUTENSCHLAGER:</p>

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1 A. We'd have to look it up. I haven't read the
 2 Newfoundland Power report in a long time.
 3 MR. MACDOUGALL:
 4 Q. Okay, maybe if you could undertake to do that
 5 and advise whether you had indicated the
 6 statement you just made in your report on
 7 Newfoundland Power.
 8 MR. LAUTENSCHLAGER:
 9 A. I don't know how to do that because I don't
 10 have it in front of me.
 11 MR. MACDOUGALL:
 12 Q. No, undertake to do it, you can do it later
 13 on.
 14 MR. LAUTENSCHLAGER:
 15 A. Oh, okay.
 16 MR. ANTONUK:
 17 A. Can you tell us exactly what you're looking
 18 for in the Newfoundland Power report?
 19 MR. MACDOUGALL:
 20 Q. Yes, whether Liberty advised the Board that
 21 their understanding of the basis of the cold
 22 temperatures affecting the operating mechanism
 23 was because the heaters had failed to come on.
 24 MR. LAUTENSCHLAGER:
 25 A. I mean, if it was the cold weather, none of

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1 the reclosures would have worked. It was only
 2 a few that failed to work and that was because
 3 of some maintenance issues on their part.
 4 MR. MACDOUGALL:
 5 Q. Okay, so do you - did you take any exception
 6 with their statement that the majority of the
 7 failures were due to the cold temperatures
 8 affecting the operating mechanisms?
 9 MR. LAUTENSCHLAGER:
 10 A. Well, not directly, because they stated they
 11 realized that, and they went through and
 12 repaired the breakers. This is what I recall.
 13 I have to take a look at the report.
 14 MR. MACDOUGALL:
 15 Q. So in this instance, cold temperatures did
 16 affect the - could have affected the operating
 17 mechanism?
 18 MR. LAUTENSCHLAGER:
 19 A. Yeah, because they didn't do their maintenance
 20 correctly.
 21 MS. GLYNN:
 22 Q. The undertaking is noted on the record to
 23 confirm the statements in Newfoundland Power's
 24 Report.
 25 MR. MACDOUGALL:

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1 Q. Liberty's Report on Newfoundland Power's.
 2 Thank you very much. Mr. Lautenschlager, you
 3 agreed earlier that the TapRoot analysis is a
 4 best practices investigative tool?
 5 MR. LAUTENSCHLAGER:
 6 A. It's good utility practice to follow TapRoot
 7 procedures or similar procedures for root
 8 cause investigations.
 9 MR. MACDOUGALL:
 10 Q. And have you participated directly in TapRoot
 11 analysis yourself?
 12 MR. LAUTENSCHLAGER:
 13 A. Yes.
 14 MR. MACDOUGALL:
 15 Q. And with respect to the incidents here, did
 16 you do a full independent analysis of the root
 17 causes of what occurred?
 18 MR. LAUTENSCHLAGER:
 19 A. I participated with Hydro's root cause
 20 analysis team and evaluated the results of
 21 their investigation.
 22 MR. MACDOUGALL:
 23 Q. And your finding was you found nothing
 24 different than what they found with respect to
 25 the root causes, correct?

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1 MR. LAUTENSCHLAGER:
 2 A. Not entirely. There was a few small issues,
 3 such as - no, I take that back. I believe all
 4 the issues were covered by the root cause
 5 analysis.
 6 MR. MACDOUGALL:
 7 Q. Okay, thank you.
 8 MR. LAUTENSCHLAGER:
 9 A. Maybe we just had slightly different
 10 conclusions, that's all.
 11 MR. MACDOUGALL:
 12 Q. Thank you. Now if we could - going to change
 13 tacks a little bit here, but it still is
 14 likely you, Mr. Lautenschlager, or possibly
 15 Mr. Mazzini. If we could pull now - again
 16 this is a document was filed on November 10th.
 17 It's PUB-NLH-039 in the outage inquiry.
 18 MS. GLYNN:
 19 Q. Information 42.
 20 MR. MACDOUGALL:
 21 Q. Thank you, and here the question posed -
 22 again, gentlemen, maybe Mr. Lautenschlager,
 23 you could take a look too, I'm not sure who is
 24 going to answer this one, so it looks like Mr.
 25 Antonuk is pointing to you. So the question

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1 posed here -

2 MR. ANTONUK:

3 A. No, not sure yet.

4 MR. MACDOUGALL:

5 Q. Okay. Maybe you can just read the question.

6 It's a fairly long response, so I'll be able

7 to direct you where I'd like to go, but the

8 question first off is, "What changes has Hydro

9 implemented in its asset management practices

10 in the past five years to address the concerns

11 it has expressed about its aging plant and

12 equipment, particularly at the Holyrood

13 thermal generating station", correct?

14 MR. MAZZINI:

15 A. Yes.

16 MR. MACDOUGALL:

17 Q. And this is an RFI from the PUB, and then if

18 we can go down to the last paragraph -

19 MS. GRAY:

20 Q. The last paragraph of the page or -

21 MR. MACDOUGALL:

22 Q. The last paragraph of the page, thank you, Ms.

23 Gray, and this response was a little more than

24 two pages and it had some condition

25 assessments attached to it as well, and Hydro

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1 states at the bottom of page 1, "Over the past

2 five years, formal condition assessments were

3 completed on gas turbines, diesel plants,

4 Holyrood and hydraulic structures, and

5 resulting recommendations were integrated into

6 Hydro's capital plans. This was a key factor

7 which has led to an increase in Hydro's

8 capital budget since 2005 of 170 percent to

9 secure the long term reliability of the

10 system". Now my first question would be, do

11 you agree that formal condition assessments

12 are an appropriate way to assist in

13 determining the condition of generating

14 assets?

15 MR. MAZZINI:

16 A. Yes, we would agree with that, yes.

17 MR. MACDOUGALL:

18 Q. Thank you, and then if we can go to page 2 of

19 this response, and if we could scroll to the

20 bottom, and the very last sentence which will

21 then carry on to page 3, Ms.Gray, so if you

22 can just pull that up a bit, thank you, and

23 here you see Hydro states, "Holyrood's annual

24 capital spending has approximately doubled in

25 the last five years to advance recommendations

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1 from these assessments", correct?

2 MR. MAZZINI:

3 A. That's what it says, yes.

4 MR. MACDOUGALL:

5 Q. Okay, and would it be fair to say that

6 generally utilities focus on completing the

7 work that they believe is of most importance

8 from the perspective of criticality, of

9 reliability, and safe supply of electricity?

10 MR. MAZZINI:

11 A. If you're saying utilities have to prioritize

12 their capital investments, I would agree with

13 that, yes.

14 MR. MACDOUGALL:

15 Q. Not that they have to, but generally what they

16 do do is try to focus on the criticality of

17 reliability in a safe manner?

18 MR. MAZZINI:

19 A. I think that's one of the factors that is

20 looked at, yes.

21 MR. MACDOUGALL:

22 Q. Would you consider it to be a primary factor?

23 MR. MAZZINI:

24 A. I think when you're evaluating expenditures,

25 you look at a number of factors, safety and

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1 reliability are primary factors, in my

2 opinion, yes.

3 MR. MACDOUGALL:

4 Q. And also, I would take it, that cost, correct?

5 MR. MAZZINI:

6 A. Cost is a primary factor, yes.

7 MR. MACDOUGALL:

8 Q. Thank you, and utilities do not have unlimited

9 capital resources available to them usually,

10 correct?

11 MR. MAZZINI:

12 A. That's correct, yes.

13 MR. MACDOUGALL:

14 Q. And gentlemen, in your experience from

15 participation in other jurisdictions, when a

16 utility applies to increase rates, either say

17 on the basis of increases in operating and

18 maintenance cost, or if they have a review of

19 a requirement for additional capital, is it

20 your experience that customer representatives

21 often are fully engaged in these proceedings

22 and often vigorously challenge whether the

23 utility requires those expenditures?

24 MR. MAZZINI:

25 A. There is often intervention in rate cases,

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1 sure.

2 MR. MACDOUGALL:

3 Q. And parties challenge to determine whether or

4 not the expenditure the utility is asking to

5 put forward are appropriate in the

6 circumstances in which they are putting them

7 forward, would that be fair?

8 MR. ANTONUK:

9 A. I'm going to say I've been at this a long

10 time, and have seen a lot, and the answer is

11 sometimes "yes" and sometimes "no", and that

12 opposition is sometimes based on when it does

13 occur, it's sometimes based on a fairly

14 detailed understanding of things like

15 prioritization and budgets, and sometimes it

16 is not.

17 MR. MACDOUGALL:

18 Q. That's fair, Mr. Antonuk, I appreciate that.

19 Now if we can go to Information 26. This is

20 Liberty's April 24, 2014, interim report, and

21 if we can go to the bottom of page 17, and

22 here, gentlemen, this is your interim report

23 and you made the following statement, "The

24 geography of Newfoundland and Labrador poses

25 significant challenges to providing and

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1 operating a reliable electric system. The

2 region is blessed with hydro resources, but

3 weather, concentration of load in one area,

4 isolation of the system from the rest of North

5 America, and relatively higher cost to provide

6 high reliability, challenge the utilities

7 serving the region in ways that few others

8 face", and that was a statement you made in

9 your interim report to the Board, correct?

10 MR. ANTONUK:

11 A. It is.

12 MR. MACDOUGALL:

13 Q. And is that still your opinion?

14 MR. ANTONUK:

15 A. Yes.

16 MR. MACDOUGALL:

17 Q. Thank you. So you've acknowledged that the

18 items that you referenced there challenge the

19 utilities in Newfoundland in ways that few

20 others face?

21 MR. ANTONUK:

22 A. Yes, all of which we had in mind when we wrote

23 this report, the report that followed it, and

24 the prudence report.

25 MR. MACDOUGALL:

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1 Q. Thank you very much, Mr. Antonuk.

2 MR. ANTONUK:

3 A. I'm just happy you found a sentence I actually

4 wrote.

5 MR. MACDOUGALL:

6 Q. I'm sure there's a few in there. If we could

7 go to your final report - maybe I'll find a

8 second sentence that you wrote, Mr. Antonuk,

9 if we're lucky. That, I believe, is Info 25,

10 if I've got my numbers correct, and if we

11 could go to the Executive Summary, ES 1, and

12 half way down is the heading, "Overall

13 Conclusions", and these bullets continue over

14 to page ES 2, so under overall conclusions,

15 you have various bullets here, and then if you

16 could go over to the next page and the first

17 bullet on there under your overall conclusions

18 states, "Following Liberty's Interim Report

19 and its own investigations, Hydro established

20 comprehensive plans and schedules for

21 improving supply and addressing transmission

22 performance. Its work in completing the plans

23 has been commendable, although important work

24 remains to be completed", correct?

25 MR. ANTONUK:

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1 A. Yes.

2 MR. MACDOUGALL:

3 Q. And does that remain your view today?

4 MR. ANTONUK:

5 A. Yeah.

6 MR. MAZZINI:

7 A. Yes, I would agree that the work Hydro has

8 done has been aggressive, commendable, the

9 programs they instituted were extensive.

10 We've commented regularly that there have been

11 flaws and there have been some areas which

12 could be improved. As this said, important

13 work remains, but on balance, I think Hydro

14 was very responsive to Liberty's findings.

15 MR. MACDOUGALL:

16 Q. Thank you very much, Mr. Mazzini.

17 MR. ANTONUK:

18 A. And for my part, I'm going to say that

19 optimism at that time was based upon work

20 expected to be completed. I think, as we

21 passed through the last year or so, and we

22 come to things like the March 4th report, I

23 would say that I have a set of concerns about

24 the implementation of sustained and effective

25 change that would not have been present when

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1 we wrote this.
 2 MR. MACDOUGALL:
 3 Q. Okay, and we might have an opportunity at some
 4 future date to revisit that report. So in the
 5 context of those comments, particularly the
 6 context that Mr. Mazzini provided, I want to
 7 turn to an associated matter. I'd like to go
 8 to page 22 of your reply evidence, which is
 9 dated September 17, and if we could go to line
 10 24. I think on page 22, Ms. Gray, not page 2.
 11 MS. GRAY:
 12 Q. Oh, I'm sorry.
 13 MR. MACDOUGALL:
 14 Q. No problem. Here we're talking about your
 15 proposed disallowance with respect to the
 16 black start project, and the question asks,
 17 "If this approach of assigning consequences
 18 for imprudent actions has been used before",
 19 and over on page 23, you cite a precedent in
 20 Nova Scotia. You state there, "Liberty
 21 recently participated in a case in Nova Scotia
 22 in which the utility was sanctioned 2 million
 23 dollars because the regulator felt its conduct
 24 in a rate case was inappropriate", correct?
 25 MR. ANTONUK:

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1 A. That's what it says, yes.
 2 (12:00 p.m.)
 3 MR. MACDOUGALL:
 4 Q. Okay, so I just want to try and give some
 5 context to the Board of the differing
 6 circumstances that may have prevailed in that
 7 case from the circumstances that are in front
 8 of the Board today, if I may. Liberty
 9 participated in that case?
 10 MR. ANTONUK:
 11 A. We did.
 12 MR. MACDOUGALL:
 13 Q. I might be able to avoid some of my questions
 14 if we could ask this, Mr. Antonuk, would you
 15 consider that it was one of the most highly
 16 contested and unusual cases you've
 17 participated in?
 18 MR. ANTONUK:
 19 A. It was, and it was accompanied by behaviour on
 20 the part of the utility that was unprecedented
 21 in our experience, out of bounds, and in on
 22 way comparable to the behaviour here by Hydro.
 23 We've always had a constructive and open
 24 relationship with Hydro. I think they've
 25 always tried their best to answer our

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1 questions. I think they've always been pretty
 2 clear when they couldn't answer our questions
 3 and told us why, and the relationship bears no
 4 - it has no characteristics similar to the
 5 ones that led to that particular sanction.
 6 MR. MACDOUGALL:
 7 Q. Okay, thank you, Mr. Antonuk, and I think
 8 that's going to be very helpful, Mr. Chair, to
 9 eliminate many of my questions, but just to
 10 make sure the Board is fully aware of the
 11 nature of that proceeding, I will ask just a
 12 couple of more questions, and I don't think
 13 we're not going to have any dispute, Mr.
 14 Antonuk. If we could bring up the actual
 15 decision in that case, which I did have put on
 16 the record on the 10th as well, and give that
 17 an information number.
 18 MS. GLYNN:
 19 Q. Is it the one labelled 227 or the one labelled
 20 -
 21 MR. MACDOUGALL:
 22 Q. December 21, 2012, 227, yes, thank you.
 23 MS. GLYNN:
 24 Q. And we'll enter that as No. 43.
 25 MR. MACDOUGALL:

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1 Q. Thank you. And if we could go to page 80,
 2 paragraph 285? Page 80, para 285. Yes, thank
 3 you very much, Ms. Gray. And Mr. Antonuk,
 4 towards the bottom of that paragraph, and this
 5 is the Utility and Review Board's decision in
 6 Nova Scotia on this proceeding, you'll see
 7 there their statement in the last sentence of
 8 paragraph 285 was "the nature of the hearing,
 9 one of the most rancorous the Board has ever
 10 seen" and I take it based on your earlier
 11 comments, you don't disagree with that
 12 comment?
 13 MR. ANTONUK:
 14 A. Well, I can't compare it to what else the
 15 Board has seen. I can compare it to my own
 16 experience and I think rancorous is a fairly
 17 moderate way to describe the nature of those
 18 proceedings.
 19 MR. MACDOUGALL:
 20 Q. Okay, and would -
 21 MR. ANTONUK:
 22 A. Which by the way I should add is very
 23 different from the next proceeding where we
 24 did a similar audit, had a very different
 25 relationship with the company, which I will

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1 point out nevertheless led to sanctions being
 2 imposed, not for behaviour but for an
 3 inability to determine any other way to apply
 4 an appropriate remedy for imprudence.
 5 MR. MACDOUGALL:
 6 Q. And I'm going to come to actually one of those
 7 decisions shortly and we're going to go
 8 through that, Mr. Antonuk.
 9 So in this case, would it be fair to say,
 10 and again we can eliminate a lot of questions
 11 if we're on the same page, that the utility in
 12 this case failed to disclose information that
 13 it had ample, ample, ample opportunity to
 14 disclose in many instances until the very last
 15 day of the hearing?
 16 MR. ANTONUK:
 17 A. I have an initial reaction to that, but I want
 18 to step back and think. I want to make sure
 19 I'm not still affected by rancour. Yes,
 20 that's a fair statement.
 21 MR. MACDOUGALL:
 22 Q. Okay. And then if we could go down to
 23 paragraph 288? And here we see -- 288,
 24 "remarkably NSPI now says it was in fact
 25 following Liberty's advice which had been

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1 given over a period of four years. The Board
 2 cannot understand what NSPI thought it was
 3 doing by withholding that information and
 4 continuing to ridicule Liberty for making the
 5 recommendation." Correct?
 6 MR. ANTONUK:
 7 A. That's what it says. I think there are Board
 8 understandings behind that that I don't think
 9 I can speak to.
 10 MR. MACDOUGALL:
 11 Q. No, that's fine, Mr. Antonuk. And now if we
 12 go to the next page, we see at paragraph 290,
 13 "in the Board's view, that conduct cannot go
 14 unsanctioned. The Board will impose a
 15 financial disallowance as more particularly
 16 described in Section 11.10 of the decision"
 17 and then if we can go to paragraph 420, which
 18 is in Section 11.10 on page 113 -
 19 MR. ANTONUK:
 20 A. I'm sorry, the paragraph again?
 21 MR. MACDOUGALL:
 22 Q. 430.
 23 MR. ANTONUK:
 24 A. Okay.
 25 MR. MACDOUGALL:

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1 Q. I think it's on page 115. Sorry, Ms. Gray.
 2 And here, this is the reference to the
 3 disallowance of two million dollars that you
 4 cited in your testimony, correct?
 5 MR. ANTONUK:
 6 A. Yes.
 7 MR. MACDOUGALL:
 8 Q. Thank you, Mr. Antonuk.
 9 MR. ANTONUK:
 10 A. I want to say that you have to understand, we
 11 don't know a lot of how the Board came to that
 12 number, why it came to that number. We
 13 proposed no sanction for their conduct. We
 14 certainly described in great candour what we
 15 thought of the conduct of the company. It was
 16 entirely the Board's initiative to determine
 17 that a sanction was appropriate and what its
 18 amount would be.
 19 MR. MACDOUGALL:
 20 Q. And is it fair to say though, if you recall
 21 this decision, that the Board has set out
 22 elsewhere in this decision, which I'm not
 23 proposing to take us through, how it came to
 24 imposing a sanction?
 25 MR. ANTONUK:

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1 A. I'll take your word for that. To be honest
 2 with you, this is the first time I've read the
 3 Board's -- even this part of the Board's
 4 order.
 5 MR. MACDOUGALL:
 6 Q. Thank you, Mr. Antonuk. That's fine. I was
 7 going to say maybe for good reason. So stay
 8 away from the words like rancour and the like.
 9 MR. ANTONUK:
 10 A. It's good to move on, particularly in some
 11 cases.
 12 MR. MACDOUGALL:
 13 Q. I'm just going to take a second, gentlemen.
 14 That'll eliminate a lot of my questions on
 15 that topic. Now what I would like to do is
 16 look at another Nova Scotia Utility and Review
 17 Board decision. This may be the same one you
 18 were referring to, Mr. Antonuk, but it's
 19 certainly another decision in which Liberty
 20 was involved. Again, that was filed on
 21 November 10th and that's the one entitled 2015
 22 NSUARB 9. Ms. Gray now has it on the screen.
 23 January 20, 2015.
 24 MS. GLYNN:
 25 Q. And that will be entered as Information No.

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1 44.
 2 MR. MACDOUGALL:
 3 Q. Thank you.
 4 MR. ANTONUK:
 5 A. Another first reading is coming, I think.
 6 MR. MACDOUGALL:
 7 Q. Now if we could turn to paragraph 16 on page
 8 eight? And here you'll see the Nova Scotia
 9 Utility and Review Board stated "in its
 10 report, Liberty concluded that NSPI acted too
 11 slowly to review and implement changes to its
 12 natural gas hedging program. Liberty
 13 recommends a sanction in the range of
 14 \$750,000" and that was with respect to that
 15 item, that's my understanding, Mr. Antonuk.
 16 Is that correct?
 17 MR. ANTONUK:
 18 A. Yes, that is correct.
 19 MR. MACDOUGALL:
 20 Q. Okay. And then if we can go to paragraph 27
 21 on page 12? And here the Nova Scotia Board
 22 states "based on its consideration of the
 23 evidence and the submissions of the parties,
 24 the Board has concluded that there was an
 25 unreasonable delay by NSPI in the review and

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1 implementation of appropriate changes to its
 2 natural gas hedging program." So here, the
 3 UARB agreed that Nova Scotia Power had acted
 4 unreasonably slow, correct?
 5 MR. ANTONUK:
 6 A. Yes, that paragraph reflects what I think is
 7 very close agreement by the Board with what we
 8 had observed in our audit.
 9 MR. MACDOUGALL:
 10 Q. Correct. But now we'll come to where the
 11 disagreement exists. If we can go to
 12 paragraph 29, page 13, paragraph 29? We see
 13 here it says "quite simply, the time taken to
 14 engage its consultants and implement changes
 15 to the hedging strategy was not reasonable in
 16 the circumstances, irrespective of what
 17 circumstances or events may have occurred
 18 later" and that was similar to what you were
 19 stating was my understanding, and thus
 20 recommending a sanction in the range of
 21 \$750,000, correct?
 22 MR. ANTONUK:
 23 A. Yes. I'm going by recollection of our report,
 24 but to the best of my recollection, I don't
 25 see anything in that paragraph that varies

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1 from what we had concluded and recommended.
 2 MR. MACDOUGALL:
 3 Q. Now if we could go to paragraph 48 on page 19?
 4 And here the UARB stated "in the
 5 circumstances, the Board finds, on the balance
 6 of probabilities, that the amount of
 7 additional costs resulting from NSPI's
 8 unreasonable delay has not been demonstrated.
 9 The Board concludes that in the specific
 10 circumstances of this case no disallowance
 11 will be imposed on NSPI for its conduct",
 12 correct?
 13 MR. ANTONUK:
 14 A. You know, we made a number of prudence
 15 conclusions in that case and frankly, I can't,
 16 from this mere paragraph, even tell if it
 17 relates back to the hedging issue or not.
 18 There's too much in between in the order that
 19 makes it impossible for me to relate this
 20 paragraph to the hedging conclusion.
 21 MR. MACDOUGALL:
 22 Q. Could you -
 23 MR. ANTONUK:
 24 A. I'm not saying it doesn't. It's just that the
 25 words don't help me to do that.

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1 MR. MACDOUGALL:
 2 Q. Could you take it subject to check that the
 3 UARB did not make the \$750,000 disallowance
 4 that you proposed? And you can take it as an
 5 undertaking if you would like to review the
 6 decision and confirm that the UARB did not
 7 accept that sanction?
 8 MR. ANTONUK:
 9 A. I can and I will undertake to determine --
 10 also because I don't remember that we actually
 11 did make the disallowance recommendation on
 12 the basis of additional costs. So if you'll
 13 give me the freedom to tie this paragraph back
 14 to our conclusion and explain in all cases
 15 where it agreed and differed, then I'm happy
 16 to do that.
 17 MR. MACDOUGALL:
 18 Q. Well, I guess, this section is Section 4 of
 19 this decision dealing with this item, and if
 20 we can go back to the headings, I want to make
 21 sure we constrain it though. If we go to page
 22 eight, paragraph 16, Section 4, the UARB is
 23 specifically stating here "in its report,
 24 Liberty concluded that NSPI acted too slowly
 25 to review and implement changes to its natural

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1 gas hedging program. Liberty recommends a
 2 sanction in the range of \$750,000."
 3 MR. ANTONUK:
 4 A. That's correct.
 5 MR. MACDOUGALL:
 6 Q. Okay. So that piece is correct?
 7 MR. ANTONUK:
 8 A. Yes, and then paragraph 48 talks about
 9 additional costs and I don't recall that we
 10 made that recommendation on the basis of
 11 additional costs having been incurred.
 12 MR. MACDOUGALL:
 13 Q. Okay. But if you could just confirm that the
 14 \$750,000 sanction that you recommended for the
 15 reasons stated in paragraph 16 was or was not
 16 allowed by the UARB in this case?
 17 MR. ANTONUK:
 18 A. I'm happy to do that. I would be doing the
 19 same thing that lawyers can do by reading this
 20 decision and arguing it in briefs, but I'm
 21 happy to do that if there's value in our doing
 22 so.
 23 MR. MACDOUGALL:
 24 Q. It's only because you said you weren't able to
 25 confirm it, but if you'd rather, we can leave

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1 it to argument.
 2 MR. ANTONUK:
 3 A. Yeah, I'm just -
 4 MR. MACDOUGALL:
 5 Q. I just assumed you would be able to confirm
 6 this.
 7 MR. ANTONUK:
 8 A. I'm just saying the words speak for itself and
 9 I'm not willing to undertake anything that
 10 sort of says I can look at two paragraphs of a
 11 long report and make any judgments based on
 12 two paragraphs. I'd have to look at the whole
 13 treatment of the issue. I'd have to go back
 14 and look at what we recommended and then I'm
 15 happy to explain what I think the Board did on
 16 that basis. I just don't feel like I'm
 17 serving any useful purpose by trying to take
 18 two paragraphs out of a long report and based
 19 on a long report -- or a long order based on a
 20 long report we did and try to end up making
 21 sense out of it. That's all. That's all I'm
 22 saying.
 23 MR. MACDOUGALL:
 24 Q. Okay. Well, maybe we'll just leave it at that
 25 then for argument, Mr. Antonuk. Thank you.

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1 Now I'm just going to get into a few numbers
 2 around the black start disallowance. I think,
 3 Mr. Mazzini, I think you're the right person
 4 for these, but if we could go to page 22 of
 5 your September 17 reply? And if we could go
 6 to line 18 on page 22? And here, you're
 7 posing a Q & A. This is how you're doing this
 8 document and you're referring to what is your,
 9 Liberty's, rationale for assuming that the
 10 sanction should be the total cost of the black
 11 start project and I believe you explained some
 12 of that rationale earlier today, Mr. Mazzini?
 13 MR. MAZZINI:
 14 A. Yes, sir.
 15 MR. MACDOUGALL:
 16 Q. Okay. So what I'd like to try and do is
 17 figure out what your actual proposed
 18 quantification of this is, because we're not
 19 100 percent sure of what you're proposing and
 20 just so that the Board and all parties are
 21 aware of that. Your original report of July
 22 6, if we could go to Table 9.1? And here we
 23 see for black start, you have a couple of
 24 adjustments in that document. At the top,
 25 we're talking about capital expenditures of

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1 about \$762,000 and then secondly, when we go
 2 down to the O&M, I believe it's an amount of
 3 \$160,000, correct?
 4 MR. MAZZINI:
 5 A. That's Mr. Vickroy's material.
 6 MR. MACDOUGALL:
 7 Q. Okay. But if we go over, it says "recommended
 8 for prudence disallowance" over on the other
 9 column, so this is a summary of adjustments
 10 for 2014, and what I'm trying to find out is
 11 Liberty's overall view of what you're actually
 12 proposing to the Board here. So my
 13 understanding was for 2014, the proposed
 14 disallowance was made up of the two black
 15 start items at 761,977 over in the far column,
 16 recommended for prudence disallowance. Under
 17 black start we see 761, and then down below
 18 under O&M, it's approximately 160,000 for a
 19 total of \$922,000. Those are the two 2014
 20 proposed disallowances as we understood them.
 21 MR. ANTONUK:
 22 A. That's correct.
 23 MR. MACDOUGALL:
 24 Q. Okay, thank you. Now if we can go to page 57
 25 of this document, the last paragraph, and just

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1 before we start that, just for the record,
 2 Table 9.1 is just 2014, correct, Mr. Vickroy?
 3 MR. VICKROY:
 4 A. Yes.
 5 MR. MACDOUGALL:
 6 Q. Okay. So then if we go to page 57 here, we're
 7 looking at the last paragraph. Here you'll
 8 see those numbers. This is the tie-in of the
 9 language of your report to Table 9.1. "Hydro
 10 has reported to Liberty 2014 capital
 11 expenditures of about 762 and depreciation,
 12 fuel and O&M of about 160." Then you go on to
 13 say "for 2015, the deferred lease amortization
 14 will start at about 1.05 million and
 15 depreciation expense is estimated at about
 16 \$41,000." So we know in Table 9.1 that you're
 17 suggesting the Board should disallow \$922,000.
 18 What else are you suggesting that the Board
 19 should disallow, other than the 922, if
 20 anything?
 21 MR. VICKROY:
 22 A. Well, it speaks about in 2015 that there's an
 23 amortization of the black start equipment and
 24 it's about 1.05 million dollars in 2015,
 25 according to the RFIs that were provided by

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1 Hydro.
 2 MR. MACDOUGALL:
 3 Q. But I guess what I'm asking is -- you know,
 4 you provided all this evidence about the black
 5 start and then I'll probe it and go through
 6 it. Can you tell the Board today the number
 7 of the disallowance that you're suggesting
 8 they impose? What's the number you're
 9 proposing as the disallowance for black start?
 10 MR. VICKROY:
 11 A. Well, it depends on whether -- what you're
 12 talking about, whether you're talking about
 13 2014 or 2015.
 14 MR. MACDOUGALL:
 15 Q. I guess the question, gentlemen, I don't know.
 16 You have put forward a report. You've said to
 17 the Board that you believe there's imprudence.
 18 There's a disagreement over it. But if there
 19 is, you were proposing a disallowance, but we
 20 don't even know what the number is, and you
 21 compared it to a two million dollar -- you
 22 mentioned the two million dollars in Nova
 23 Scotia that we went through. I guess what I'd
 24 like to know is can you tell Hydro or the
 25 Board what you're even suggesting the

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1 disallowance is on account of this? Because
 2 the order of magnitude obviously matters
 3 significantly.
 4 MR. ANTONUK:
 5 A. The 2014 calculation that we did is intended
 6 to say -- of actual cost associated with black
 7 start during 2014, how many of those would not
 8 have been incurred.
 9 MR. MACDOUGALL:
 10 Q. Understood.
 11 MR. ANTONUK:
 12 A. Based on imprudence. So that, if I'm reading
 13 it right, Randy, is 2014 -- capital
 14 expenditures of 762,000 which would have
 15 carrying costs associated with it.
 16 MR. MACDOUGALL:
 17 Q. Correct.
 18 MR. ANTONUK:
 19 A. Okay. And then the actual -- we do not know
 20 what's asked for in the GRA. So all we can do
 21 is tell you that the 2015 costs that we
 22 believe are subject to our concern about
 23 prudence would be the deferred lease
 24 amortization costs and depreciation expenses.
 25 That is our estimation of what those are on an

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1 actual basis. What you have asked for in the
 2 GRA is necessary to be known to calculate a
 3 "disallowance" and we don't have that. Our
 4 value added here is just to say that based
 5 upon our view of prudence of black start,
 6 deferred lease amortization and depreciation
 7 expense, to the extent it may be included in
 8 the GRA, should not.
 9 MR. MACDOUGALL:
 10 Q. Okay. So -
 11 MR. ANTONUK:
 12 A. Anything related to 2014 only has relevance to
 13 this extent. If 2014 actual costs included
 14 carrying costs associated with capital
 15 expenditures, then those carrying costs in
 16 2014 we believe would have been avoided if you
 17 accept our view of prudence.
 18 MR. MACDOUGALL:
 19 Q. Okay. I think that's helping to make it
 20 clearer.
 21 MR. ANTONUK:
 22 A. Yeah. Does that get at what you were not
 23 certain about?
 24 MR. MACDOUGALL:
 25 Q. Absolutely, but I want to do is give the Board

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1 the sense of an order of magnitude of what
 2 this means because you're only referring to
 3 lease amortization and it appears you may be
 4 suggesting something other than this figure.
 5 So, just so the Board has a sense of what
 6 order of magnitude that disallowance would be
 7 if it happened.
 8 MR. VICKROY:
 9 A. Yes.
 10 MR. MACDOUGALL:
 11 Q. What I would like to do, I think the best way
 12 to do it, because I do believe the record has
 13 the figures, if we could go to CA-014,
 14 Revision 1, PR-CA-NLH-014, Revision 1, and if
 15 we could pull that up, Ms. Gray, and if we
 16 could go to the attachment on the second page?
 17 And you'll see here, if we go down to Holyrood
 18 black start capital and then we go down to
 19 Holyrood black start deferred lease, we see
 20 there deferred lease, 5.2 million dollars,
 21 correct?
 22 MR. VICKROY:
 23 A. That's what it says.
 24 MR. MACDOUGALL:
 25 Q. Yeah, but did you -- you understood that this

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1 was a deferred lease asset, correct?
 2 MR. VICKROY:
 3 A. Yes.
 4 MR. MACDOUGALL:
 5 Q. Yeah, and the amortization of the 1.05
 6 essentially was deferring this over a five-
 7 year period, recovering it over five years, so
 8 the amount actually for the deferred lease is
 9 roughly 5.2 million dollars.
 10 MR. ANTONUK:
 11 A. Yes, understood.
 12 MR. MACDOUGALL:
 13 Q. Okay. So are you suggesting to the Board that
 14 all of these costs, six million dollars worth
 15 of capital and \$200,000 worth of more
 16 operating combined to be disallowed on account
 17 of the black start matter? I guess that's the
 18 question.
 19 MR. ANTONUK:
 20 A. Now I see where you're going.
 21 MR. VICKROY:
 22 A. Yeah, these -- well, one problem we have is
 23 that this chart here includes -- the 2014
 24 numbers are from the revenue deficiency
 25 whereas all of our numbers are actuals.

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1 MR. MACDOUGALL:
 2 Q. No -
 3 MR. VICKROY:
 4 A. So you got apples and oranges there.
 5 MR. MACDOUGALL:
 6 Q. Well, I don't know. I think we're showing the
 7 \$800,000 from 2014, note seven. We got the
 8 200,000 over there. But then what we have is
 9 the difference here. You had shown the
 10 deferred lease amount of 1.05 million. But in
 11 fact, the entire deferred lease over its
 12 lifetime is 5.2, adding up to 6.2 million
 13 dollars.
 14 MR. VICKROY:
 15 A. Sure. We were reporting that the 2015 impact,
 16 as was provided to us by the company, is 1.05
 17 million dollars. That's how much would be
 18 amortized in 2015.
 19 MR. MACDOUGALL:
 20 Q. Correct, and I guess what I'm asking -
 21 MR. VICKROY:
 22 A. We're not going into the future.
 23 MR. MACDOUGALL:
 24 Q. But what I'm saying is if the Board is coming
 25 up with a disallowance, are you proposing that

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1 they disallow the 2015 amortization or is it
 2 your proposal that all of these deferred costs
 3 for the next five years be disallowed?
 4 Because it's unclear to us.
 5 MR. ANTONUK:
 6 A. Yeah, it's -- I see where we're not at
 7 loggerheads, but at cross purposes.
 8 MR. MACDOUGALL:
 9 Q. We're not at -- no, I'm just trying -- we
 10 don't know what you're asking.
 11 MR. ANTONUK:
 12 A. The one-year impact of our conclusion is the
 13 1.05. We are not recommending only the
 14 elimination of amortization for the first year
 15 but the full amount across the five years.
 16 MR. MACDOUGALL:
 17 Q. Okay.
 18 MR. VICKROY:
 19 A. Sure.
 20 MR. MACDOUGALL:
 21 Q. So your recommendation is a disallowance of in
 22 excess of six million dollars on account of
 23 this item?
 24 MR. ANTONUK:
 25 A. It's whatever adds up. Whatever those numbers

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<p>1 add up to, the full 5.3, which reflects the</p> <p>2 five-year total of five individual amounts of</p> <p>3 one million plus whatever.</p> <p>4 MR. VICKROY:</p> <p>5 A. And that will depend on what the company files</p> <p>6 for in the future.</p> <p>7 MR. MACDOUGALL:</p> <p>8 Q. But the company has already -</p> <p>9 MR. VICKROY:</p> <p>10 A. For related to black start.</p> <p>11 MR. MACDOUGALL:</p> <p>12 Q. Well, the company has already filed for the</p> <p>13 deferred lease amount.</p> <p>14 MR. ANTONUK:</p> <p>15 A. Again, understand, we did not do our work</p> <p>16 based on a GRA filing. We did our work based</p> <p>17 on what we understood to be the actual costs.</p> <p>18 MR. MACDOUGALL:</p> <p>19 Q. Understood. And just so -- but order of</p> <p>20 magnitude now, to the extent that those are</p> <p>21 the costs, you're suggesting all of them be</p> <p>22 disallowed?</p> <p>23 MR. VICKROY:</p> <p>24 A. Yes.</p> <p>25 MR. ANTONUK:</p>	<p>1 MR. MACDOUGALL:</p> <p>2 Q. So again, this is more explanation than cross-</p> <p>3 examination. So we'll go at it the same way</p> <p>4 we did the last one. Can you explain to the</p> <p>5 Board what you propose actually happen to the</p> <p>6 undepreciated portion of the assets that have</p> <p>7 been replaced at Sunnyside and Western Avalon?</p> <p>8 MR. ANTONUK:</p> <p>9 A. They would be transformed into a regulatory</p> <p>10 asset at their current depreciated cost,</p> <p>11 amortizable over expected remaining life and</p> <p>12 that regulatory asset would be allowed for a</p> <p>13 return in current rates.</p> <p>14 MR. MACDOUGALL:</p> <p>15 Q. Okay. And I don't know that that was clear</p> <p>16 anywhere else. But the undepreciated portion</p> <p>17 of the asset that would have been there,</p> <p>18 you're saying that can be recovered or should</p> <p>19 be recovered?</p> <p>20 MR. ANTONUK:</p> <p>21 A. It should be recovered and while I'm not an</p> <p>22 accounting expert, but the most common way</p> <p>23 I've seen issues like that dealt with is to,</p> <p>24 in effect, turn the investment, because it's</p> <p>25 now gone in a physical sense, into a</p>
<p>Page 150</p> <p>1 A. Yes. They should not be included in 2015,</p> <p>2 '16, '17, '18, '19, and I need to stop at</p> <p>3 whatever one of those is five years.</p> <p>4 MR. MACDOUGALL:</p> <p>5 Q. That's right, whatever five years is.</p> <p>6 MR. ANTONUK:</p> <p>7 A. Whenever we get to five years.</p> <p>8 MR. MACDOUGALL:</p> <p>9 Q. We're both lawyers, so we won't do the math,</p> <p>10 Mr. Antonuk.</p> <p>11 MR. ANTONUK:</p> <p>12 A. I'm a recovering lawyer.</p> <p>13 MR. MACDOUGALL:</p> <p>14 Q. That's right. I may be soon myself, Mr.</p> <p>15 Antonuk. Mr. Chair, if I could just have one</p> <p>16 minute, I think I can knock out a bunch more</p> <p>17 questions.</p> <p>18 CHAIRMAN:</p> <p>19 Q. Take your time.</p> <p>20 MR. MACDOUGALL:</p> <p>21 Q. Thank you, sir. Yes, that was so much fun,</p> <p>22 gentlemen, I thought we'd go to betterment</p> <p>23 next.</p> <p>24 MR. ANTONUK:</p> <p>25 A. I'm ready if you are.</p>	<p>Page 152</p> <p>1 regulatory asset that would mimic the</p> <p>2 remaining cost of the asset as it depreciates</p> <p>3 over its remaining expected life.</p> <p>4 MR. MACDOUGALL:</p> <p>5 Q. Okay. And then you would do that for what</p> <p>6 term, just over its remaining expected life?</p> <p>7 MR. ANTONUK:</p> <p>8 A. You would determine that remaining expected</p> <p>9 life from two sources. One is you would start</p> <p>10 from the life it has based upon whatever is</p> <p>11 established for depreciation purposes for</p> <p>12 those kind of assets, unless the Board is</p> <p>13 inclined to change them in the current rate</p> <p>14 case, and it should reflect the fact that,</p> <p>15 like all of us here -- I mean some of us are</p> <p>16 dead on an actuarial basis, but because we've</p> <p>17 lived so long, we've outgrown -- I'm probably</p> <p>18 among them or close to it.</p> <p>19 CHAIRMAN:</p> <p>20 Q. Boy, that's encouraging.</p> <p>21 MR. ANTONUK:</p> <p>22 A. Well, the good news is we're still alive and</p> <p>23 we have longer expectations than we had the</p> <p>24 day we were born. So the fact that the asset</p> <p>25 has survived this long calls for an analysis</p>

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1 of on that basis what is reasonable to expect
 2 for its life. That should be fairly readily
 3 determinable by folks like Grant Thornton or
 4 your experts as well.
 5 MR. MACDOUGALL:
 6 Q. Yeah.
 7 MR. ANTONUK:
 8 A. And that's the period that I would set for its
 9 remaining life.
 10 MR. MACDOUGALL:
 11 Q. Do you recall though Mr. Kennedy's evidence
 12 that he said it's actually quite difficult to
 13 determine because these assets in fact could
 14 have, because of use of averages, actually
 15 have died earlier, died later, and there's a
 16 dispersion curve between 20 to 80 years in
 17 which deaths are occurring in all of those
 18 instances?
 19 MR. ANTONUK:
 20 A. Yeah, and that's got nothing to do with
 21 anything that's relevant here. The dispersion
 22 issue doesn't stop him from setting an
 23 expected life for the whole class of assets.
 24 The dispersion factor on my life does not stop
 25 anybody from determining what the expected

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1 value of my income is if I get hit by a car
 2 tomorrow and somebody's liable for it. Now, I
 3 would hope my wife would not accept the
 4 defendant's argument that I could have died
 5 anyway, even though my death might, in her
 6 view, be termed a betterment.
 7 MR. MACDOUGALL:
 8 Q. But you would look at this on the class of the
 9 assets, not on the asset itself then?
 10 MR. ANTONUK:
 11 A. We've destroyed an asset, not a class of
 12 assets. That asset, like any asset, like any
 13 life, has a determinable expected remaining
 14 life.
 15 MR. MACDOUGALL:
 16 Q. The actual single asset -
 17 MR. ANTONUK:
 18 A. And to argue that it doesn't -- pardon?
 19 MR. MACDOUGALL:
 20 Q. The actual single asset, now that it's gone,
 21 has a determinable life as to when it would go
 22 at some other point?
 23 MR. ANTONUK:
 24 A. It had a determinable life expectancy as of
 25 the date it was destroyed, yes.

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1 MR. MACDOUGALL:
 2 Q. And have you ever been involved in an analysis
 3 that does that?
 4 MR. ANTONUK:
 5 A. I have been involved in those analyses, yes,
 6 in our work in Chicago, where the problem was
 7 deferral of capital investments during a rate
 8 freeze period and what happened was investment
 9 dropped off the charts, if you will. So we
 10 looked at when assets were put in in actuality
 11 versus when they should have been put in. We
 12 determined the difference in price using Handy
 13 Whitman indexes. We determined remaining
 14 lives and we, on the basis of those assets
 15 replaced, made those judgments, yes.
 16 MR. MACDOUGALL:
 17 Q. So you made a judgment as to when an asset
 18 that had already terminated would have
 19 terminated, absent the fact that it had
 20 already terminated?
 21 MR. ANTONUK:
 22 A. No. These assets were in existence. They
 23 were placed in, in this case years after, not
 24 before one would have expected them to be put
 25 in, had they had normal lives.

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1 MR. MACDOUGALL:
 2 Q. Yes, okay. Thank you, Mr. Antonuk. And then
 3 you would start the recovery of the new --
 4 again, your proposal, you would start the
 5 recovery of the replacement asset at the time
 6 when the new asset -- the old asset is
 7 determined it should have died, absent when it
 8 did die?
 9 MR. ANTONUK:
 10 A. It does, but I think it might be easier to do
 11 a simple example that will illustrate the
 12 point, and if it doesn't, take me -
 13 MR. MACDOUGALL:
 14 Q. No, but if you just agree with that comment,
 15 I'm fine.
 16 MR. ANTONUK:
 17 A. Well, I'm not sure the way you expressed it -
 18 MR. MACDOUGALL:
 19 Q. But to help the Board, you may wish to -
 20 MR. ANTONUK:
 21 A. - I agree with it. I think we're close, but I
 22 want to be precise. If the remaining expected
 23 life was ten years, then what you would do is
 24 you would continue on a regulatory asset basis
 25 to depreciate the value it had for ten years,

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1 that regulatory asset. You create a
2 corresponding regulatory asset which consists
3 of the installed cost of the replacement. For
4 those ten years when it would not have been in
5 service but for imprudence, you depreciate
6 that regulatory asset. Then at the end of
7 those ten years, you put it in at its then
8 depreciated original cost.

9 MR. MACDOUGALL:
10 Q. I think that's helpful, Mr. Antonuk, because I
11 don't think the clarity of what you were
12 proposing was on the record in that manner up
13 until today, so I think was helpful. I
14 certainly understand now what Liberty is
15 proposing could be done with the asset.

16 MR. ANTONUK:
17 A. I'd prefer that you agreed with it, but I'm
18 happy that you understand it.

19 MR. MACDOUGALL:
20 Q. Okay. Gentlemen, that's most of my questions.
21 I just think there were a few questions
22 arising from comments you made this morning
23 and what I will try to do is, if I can get
24 through them now, I won't have to review the
25 transcript and come back tomorrow morning, so

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1 if you just give me a minute, I'm just going
2 to see if there's a couple of questions I'd
3 like to ask based on information you've raised
4 in your direct.

5 CHAIRMAN:
6 Q. Do you need a five-minute break to help you in
7 that determination, sir? We're eager to
8 encourage you.

9 MR. MACDOUGALL:
10 Q. Based on that -

11 CHAIRMAN:
12 Q. Proceed tortoise-like, if you want to.

13 MR. MACDOUGALL:
14 Q. No, I will be quick. Five minutes would be
15 helpful and help move things along, Mr. Chair.
16 (RECESS - 12:36 P.M.)
17 (RECONVENED - 12:45 P.M.)

18 CHAIRMAN:
19 Q. Now, sir, we're back to you.

20 MR. MACDOUGALL:
21 Q. Thank you, Mr. Chair. That was a very helpful
22 break, only two short series of questions.
23 Mr. Lautenschlager, the first series of
24 questions I have is for you. I think this
25 morning you mentioned that you had been

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1 involved in gasket change outs on tap changers
2 back in the '90s and again, I'll quote, but I
3 think you said it took about four days to do
4 them at a cost of approximately \$30,000.00 and
5 then you ballparked that that might be double
6 that amount today, is that right?

7 MR. LAUTENSCHLAGER:
8 A. That's right.

9 MR. MACDOUGALL:
10 Q. And did you do any rigorous analysis of taking
11 the number from the '90s to determine what it
12 would be today?

13 MR. LAUTENSCHLAGER:
14 A. No, I mean, it would probably be less than
15 double, but I was being conservative to say
16 double, but--that's US dollars in my mind, so
17 you may have to boost that a little bit for
18 Canadian dollars.

19 MR. MACDOUGALL:
20 Q. Did you do any analysis of the current cost of
21 doing this today?

22 MR. LAUTENSCHLAGER:
23 A. No.

24 MR. MACDOUGALL:
25 Q. Did you consider the circumstances in

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1 Newfoundland that may prevail to do it?

2 MR. LAUTENSCHLAGER:
3 A. I've personally done the same kind of work in,
4 weatherwise, in cold weather, the only issue
5 would be logistics, probably.

6 MR. MACDOUGALL:
7 Q. Do you have any knowledge of the disposal
8 requirements that have changed for tap changer
9 oil, vis-a-vis contaminants and the like since
10 the 1990s until 2015?

11 MR. LAUTENSCHLAGER:
12 A. I'm not familiar with the Canadian
13 requirements.

14 MR. MACDOUGALL:
15 Q. Are you familiar with the confined space
16 requirements in order to carry out this
17 confined space work in the Province of
18 Newfoundland?

19 MR. LAUTENSCHLAGER:
20 A. Oh yes, yes, I'm very experienced with that.

21 MR. MACDOUGALL:
22 Q. And those are important?

23 MR. LAUTENSCHLAGER:
24 A. Oh yes, of course.

25 MR. MACDOUGALL:

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1 Q. Thank you, Mr. Lautenschlager.
 2 MR. LAUTENSCHLAGER:
 3 A. You're welcome.
 4 MR. MACDOUGALL:
 5 Q. And then, Mr. Mazzini, just one short series
 6 of questions for you. In your discussion on
 7 supply costs, I think you said that you looked
 8 at a number of alternatives of coming up with
 9 your estimate.
 10 MR. MAZZINI:
 11 A. I did look at some alternatives, yes.
 12 MR. MACDOUGALL:
 13 Q. Yes, I think it might have been a number, but
 14 some alternatives.
 15 MR. MAZZINI:
 16 A. Yes.
 17 MR. MACDOUGALL:
 18 Q. So there's more than one way to take a look at
 19 it?
 20 MR. MAZZINI:
 21 A. I think there's probably many ways to do that
 22 estimate, yes.
 23 MR. MACDOUGALL:
 24 Q. Okay, thank you, Mr. Mazzini. Thank you very,
 25 very much, gentlemen, greatly appreciated.

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1 Thank you, Mr. Chair, that's all my
 2 questions.
 3 CHAIRMAN:
 4 Q. So now we're over to Light and Power.
 5 MR. O'BRIEN:
 6 Q. Thank you, Mr. Chair. Good morning gentlemen
 7 or good afternoon, I should say.
 8 MR. ANTONUK:
 9 A. Good morning.
 10 MR. MAZZINI:
 11 A. Good morning.
 12 MR. LAUTENSCHLAGER:
 13 A. Good morning.
 14 MR. O'BRIEN:
 15 Q. I only have a couple of lines of questions for
 16 you. I wonder if we could bring up the
 17 Liberty report, July 6th, the Executive
 18 Summary, AGS 1, and I think this probably is
 19 for you, Mr. Antonuk, I just wanted to have a
 20 discussion about the, I guess, the scope and
 21 the prudence review tests, I guess, and
 22 standards that you would apply, that's
 23 something that came under your purview, I take
 24 it?
 25 MR. ANTONUK:

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1 A. Yes.
 2 MR. O'BRIEN:
 3 Q. So we see listed here under "Report, Purpose &
 4 Scope", the third bullet, "Liberty conducted
 5 its review according to the accepted standards
 6 for examining the prudence of utility
 7 decisions and actions. These standards
 8 include"--and the first one here, "The
 9 utility's decisions and actions must be
 10 reasonable in the context of information that
 11 was known or should have been known at the
 12 time." Why is that important?
 13 MR. ANTONUK:
 14 A. That's important because management has to act
 15 on the basis of uncertainty and it needs to do
 16 the best it can to minimize the uncertainty
 17 and then for whatever uncertainty is left, try
 18 to put reasonable bounds upon it before it
 19 begins to identify alternative solutions.
 20 MR. O'BRIEN:
 21 Q. Okay, and in the second one here, "The utility
 22 must act in a reasonable manner and use a
 23 reasonable standard of care in its decision-
 24 making process." Can you just expand on that?
 25 Is that where you talk about coming up with a

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1 different range of alternatives or -
 2 MR. ANTONUK:
 3 A. The first part of that sentence does refer to
 4 the development of a reasonable set of
 5 alternatives and that set of alternatives and
 6 complex decision-making is influenced by the
 7 knowledge that you have and should have. It's
 8 not an abstract set of alternatives, it's a
 9 set of alternatives that is informed by all
 10 the information that you need to have. And
 11 the use of a reasonable standard of care
 12 really doesn't change that a whole lot, other
 13 than saying that what's reasonable in terms of
 14 standard of care for a utility is making sure
 15 that it is appropriately considering
 16 reliability, efficiency, effectiveness,
 17 service continuity and customer objectives.
 18 MR. O'BRIEN:
 19 Q. Okay, and when you talk about reasonable
 20 standard, that's the reasonable standard for
 21 the utility, obviously.
 22 MR. ANTONUK:
 23 A. Yes.
 24 MR. O'BRIEN:
 25 Q. And in the third one here, I wanted to ask you

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<p>1 just a little bit about that, "Hindsight is 2 not to be used in assessing prudence. 3 Decisions and actions must be evaluated on the 4 basis of circumstances existing at the time." 5 So when you talk about hindsight and this 6 particular standard, when you looked at the--I 7 guess when all you gentlemen looked at that, 8 did you keep that in mind in assessing the 9 actions of management, that hindsight was not 10 going to be applied? Is that how you 11 approached it? 12 MR. ANTONUK: 13 A. Yeah, absolutely, now you have to be careful 14 and make this distinction though, you should 15 not use hindsight to evaluate the 16 reasonableness of decisions, but when you find 17 a decision and it was unreasonably made by 18 definition, you have to use what results 19 occurred versus what results would have 20 occurred under a reasonable alternative, so 21 that, by definition, takes advantage of facts 22 that weren't known when you make the decision, 23 but only come out later, but when you're 24 dealing with the quality of a decision or an 25 action, that's when you should not use</p>	<p>1 there's been a couple of Supreme Court of 2 Canada cases that have been--decisions in 3 September of this year, that sort of address 4 the no hindsight principle. Are you aware of 5 those cases? 6 MR. ANTONUK: 7 A. Yes, but please remember I'm a recovering 8 lawyer and I don't want to suffer a set-back. 9 MR. O'BRIEN: 10 Q. Understandable. And I guess my questions are 11 going to be brief on it, have you read the 12 cases? 13 MR. ANTONUK: 14 A. I did, I would say I didn't read it the way I 15 would have read it if a law professor as going 16 to ask me questions on it in an exam. 17 MR. O'BRIEN: 18 Q. Okay. And I guess the next question would be, 19 I assume based on your testimony today that 20 your reading of those cases hasn't changed 21 your opinion on how to approach your review of 22 this particular--of the management decisions 23 of Hydro in this case? 24 MR. ANTONUK: 25 A. We don't generally think it's necessary or</p>
<p>1 hindsight. 2 MR. O'BRIEN: 3 Q. Right, okay, and that was, I guess, my next 4 question, so thank you for that. I wonder, 5 Mr. Antonuk, you had mentioned how you come to 6 the standards in looking at, I guess, 7 jurisprudence in other areas and what other 8 jurisdictions did, is that correct? Is that 9 how you come to those standards? 10 MR. ANTONUK: 11 A. We do, yes, and you know, frankly I get a 12 little concerned when people try to express 13 prudence strictly in an abstract way based on 14 legal decisions because context is very 15 important, you have to think about the 16 particular circumstances involved. Here it's 17 a utility. Sometimes it's as simple as 18 crossing the street against a red light. So I 19 think whatever standard you create, it needs 20 to respond in a theoretical way to what's 21 required, but when you apply it, you need to 22 be very sensitive to the circumstances in 23 which you're applying it. 24 MR. O'BRIEN: 25 Q. Okay. I wonder can I ask you, Mr. Antonuk,</p>	<p>1 appropriate to apply a presumption of 2 prudence. Our view has always been that a 3 utility is always under an obligation to prove 4 rates are just and reasonable. Prudence and 5 imprudence affects justice and reasonableness 6 of rates; however, understanding that at the 7 time the best thinking across Canada was that 8 the presumption was applicable. We did apply 9 that presumption. Applying it or not applying 10 it I think ended up being moot in what we 11 found. 12 MR. O'BRIEN: 13 Q. Okay. 14 MR. ANTONUK: 15 A. But I think the Canadian Supreme Court has 16 made a useful breakthrough in consigning what 17 I think is a wrong presumption to each 18 individual jurisdiction to settle for itself. 19 MR. O'BRIEN: 20 Q. How about in terms of the applicability of the 21 no hindsight rule, I understand the cases 22 indicate that a commission is not bound not to 23 apply those, that methodology but that there's 24 no requirement that you can't apply it, that a 25 commission can still apply it in a case where</p>

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1 you've indicated in your report that it's okay
2 to approach it that way.

3 MR. MACDOUGALL:

4 Q. Mr. Chair, I'm sorry, I have to object here, I
5 think. We're putting Canadian case law from
6 the Supreme Court of Canada to a non-qualified
7 Canadian lawyer who has now made statements on
8 the record as if they are proper
9 interpretations of what those cases mean. We
10 can deal with that in argument, but I do not
11 believe Mr. Antonuk is qualified to comment on
12 Canadian law and what Canadian legal findings
13 mean and I'm not sure we agree with the
14 statement he has just made, so I just want to
15 put the objection on the record that Mr.
16 Antonuk is not qualified as a lawyer in
17 Canada. He's not been put up as an expert on
18 that subject matter and questions are being
19 put to him as if he is responding as an
20 expert. If they're going to be taken as lay
21 statements from Mr. Antonuk, we're fine with
22 that, but I do want to note that objection for
23 the record.

24 MR. O'BRIEN:

25 Q. That's noted and I don't intend to do--I

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1 didn't intend to seek a legal opinion, I just
2 wanted to make sure that those cases haven't
3 changed the opinion of Liberty Consulting at
4 this time and I don't think there's an
5 indication that they have, so I can move
6 along, that's fine with me.

7 CHAIRMAN:

8 Q. Yes, I think that's fairly reasonable.

9 MR. O'BRIEN:

10 Q. I just had a few questions for you, Mr.
11 Vickroy, I think just in terms of the test
12 year and actuals, so there's been a bit of, I
13 guess, confusion over where to apply, when you
14 look at your figures in terms of 2014 and that
15 revenue deficiency as to how to apply
16 disallowances and I believe Liberty has made
17 some recommendations based on actuals, as
18 opposed to the test year revenue deficiency,
19 is that right?

20 MR. VICKROY:

21 A. That's correct.

22 MR. O'BRIEN:

23 Q. And can you just expand on why you've done it
24 in that fashion?

25 MR. VICKROY:

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1 A. When we started the job here, it requests a
2 set of information be consistent for our
3 report and at that point in time the 2014
4 audited financials became available and so
5 that's what we decided to use as it was not
6 based on forecasts, therefore it's better
7 information.

8 MR. O'BRIEN:

9 Q. Better information at that time, and in terms
10 of some of the responses, I guess, I wonder if
11 we could look at just the Liberty report, page
12 44, table 9.1, if we could bring that up. I
13 wanted to have a look at the Sunnyside
14 replacement equipment net operating expenses.
15 There's a figure there of 879,800, is that
16 figure there under operating?

17 MR. VICKROY:

18 A. Yes.

19 MR. O'BRIEN:

20 Q. And that's the actuals that you've come to
21 that figure based on, is that right?

22 MR. VICKROY:

23 A. Yes.

24 MR. O'BRIEN:

25 Q. And I understand that Hydro has alleged that

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1 824,000 dollars of that figure was not
2 included in the revenue deficiency or 2014
3 test year, is that your understanding as well?

4 MR. VICKROY:

5 A. Well -

6 MR. O'BRIEN:

7 Q. Maybe we can pull up the Hydro reply.

8 MR. VICKROY:

9 A. It doesn't matter, we haven't reviewed that
10 number, we're not going to translate any of
11 this into GRA numbers.

12 MR. O'BRIEN:

13 Q. Okay. That was my next question, you haven't
14 reconciled those two, I take it?

15 MR. VICKROY:

16 A. No, no, sir.

17 MR. ANTONUK:

18 A. I think, less everybody think we were just
19 sort of abandoning a sinking ship here, it was
20 our understanding that if we presented the
21 actual information, then Grant Thornton would
22 be able to use that actual information and
23 then conform it, adjust it, use it, toss it
24 out, however they determined to be appropriate
25 with respect to corresponding items offered in

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1 the GRA or in respect of explaining the 2014
 2 deficiency calculation.
 3 MR. O'BRIEN:
 4 Q. You've covered off the rest of my questions,
 5 there was a few others there and I think the
 6 answers would have been the same on that,
 7 okay, thank you.
 8 CHAIRMAN:
 9 Q. Mr. Johnson, sir.
 10 JOHNSON, Q.C.:
 11 Q. Yes, Mr. Chairman, Panel, thank you. Just to
 12 be brief, a couple of points I want to touch
 13 upon. The first one has to do with your
 14 comments about "flying blind" that were made
 15 and I got the distinct impression from that
 16 flying blind comment and, of course, what you
 17 had to say about it being a no-no to be
 18 postponing preventative maintenance work and
 19 doing other things before your preventative
 20 maintenance work, I got that right.
 21 MR. LAUTENSCHLAGER:
 22 A. That's right.
 23 JOHNSON, Q.C.:
 24 Q. And I just, in terms of trying to get a sense
 25 of the berth that you gave Hydro when you're

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1 assessing their conduct on their catch-up plan
 2 for preferred maintenance because your report
 3 indicates that you would expect, you would
 4 expect--prudence would expect them to make
 5 substantial headway against the backlog.
 6 MR. LAUTENSCHLAGER:
 7 A. That's correct.
 8 JOHNSON, Q.C.:
 9 Q. And I guess what I'm trying to get at here and
 10 not expressing it very well, is that it would
 11 seem to me that in the context of an activity
 12 that's a no-no to put off, that the utility
 13 would have very little time, prudence would
 14 give it very little time to catch up, would
 15 that be a fair statement?
 16 MR. LAUTENSCHLAGER:
 17 A. I agree.
 18 (1:00 p.m.)
 19 JOHNSON, Q.C.:
 20 Q. I just want to, as well, deal with this
 21 overarching idea of causation that applied to
 22 at least some of the imprudency findings and
 23 your report notes that when causation is not
 24 determinable, I'm referring to page 28, the
 25 top of page 28, "where causation is not

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1 determinable despite good faith and capable
 2 effort, it is sufficient to make the
 3 categorical level connection as exists here
 4 between conducting maintenance and avoiding
 5 malfunction. To assign no consequence to
 6 imprudence under such circumstances when
 7 adverse consequences have occurred has the
 8 inevitable effect of lessening diligence and
 9 care in operating facilities required to serve
 10 the public and for which customers also bear
 11 cost responsibility". So, are you expressing
 12 there a policy, if you will, of a concern that
 13 the Board should be guarding against, you
 14 know, in the sense of sending the wrong
 15 message.
 16 MR. ANTONUK:
 17 A. I think one of the purposes of regulation is
 18 to induce the kind of performance, the
 19 competition imposes on market participants,
 20 discipline. And that discipline is to act
 21 prudently and effectively. When you get a
 22 situation--this isn't a situation where
 23 there's no causal connection established
 24 whatsoever. There is a direct causal linkage
 25 between maintenance and performance.

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1 JOHNSON, Q.C.:
 2 Q. Right.
 3 MR. ANTONUK:
 4 A. What we can't do is say whether that linkage
 5 is what was the direct cause in this given
 6 incident. From a practical matter, I think
 7 what we have to say is, if Hydro can sit back
 8 and say someone else has to prove that that
 9 direct causal linkage was overtaken by some
 10 other event, how does that make sense? They
 11 run the equipment, they manage the equipment,
 12 they work with the people who know this
 13 equipment; they retain these people. There
 14 were some quotes about the AMEX report made in
 15 cross-examination. The thing that wasn't
 16 mentioned was the statement that said I can't
 17 find a root cause here. In that case, I think
 18 the question is this: when you establish a
 19 very clear pattern of poor performance here
 20 with respect to maintenance, do you really
 21 want to say to customers nobody can come up
 22 with "the" specific cause for "this" specific
 23 incident, including the people who run and
 24 maintain this equipment, including their
 25 experts and including their own analysis. Do

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1 you really want to say it's up to customers or
 2 the Board to step in and prove cause, or do
 3 you want to say we've established a pattern of
 4 conduct that is so clear here that imposing
 5 discipline on the utility to do its job
 6 requires us to say we are going to put this
 7 cost of your ledger and not on customers'
 8 ledger, that's the policy issue, I think.
 9 JOHNSON, Q.C.:
 10 Q. Those are my questions.
 11 CHAIRMAN:
 12 Q. Mr. Coxworthy, sir.
 13 MR. COXWORTHY:
 14 Q. Thank you, Mr. Chair. Good afternoon,
 15 gentlemen. My name is Paul Coxworthy and I'm
 16 counsel for a group of industrial customers of
 17 Hydro. I want to turn to page 55 of the
 18 Liberty report, July 6th, 2015 report and if
 19 we could scroll down to the bottom of the
 20 page, Ms. Gray, thank you. I wanted to ask
 21 you some questions and get your comments with
 22 respect to the used and useful nature test,
 23 specifically in relation to whatever solution
 24 might have been implemented for the black-
 25 start problem at Holyrood. And is there a

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1 time value element to that? Is there a time
 2 value element in terms of a used and useful
 3 solution that will have a three-year lifetime
 4 as opposed to a one-year lifetime? Is there a
 5 difference in terms of used and useful?
 6 MR. MAZZINI:
 7 A. I think it's completely dependent on what the
 8 investment was, you know, for example in this
 9 case, we had a year or two of usefulness, but
 10 the expenditures were for a year or two, so
 11 again, in the absence of all other tests, the
 12 absence of all other considerations, then we
 13 would consider that has been useful for that
 14 limited period of time. Obviously if you made
 15 an investment intended for ten years and it
 16 served for one year, then that's another
 17 story, but in this particular case, if you
 18 only paid for a year and you got a year, then
 19 that meets the used and useful test.
 20 MR. COXWORTHY:
 21 Q. Sure, and in this case and you may be alluding
 22 to this, Mr. Mazzini, they're leasing the
 23 diesels, so of course if you lease diesels for
 24 three years, as opposed to one year,
 25 additional cost and that would impact on the

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1 used and useful test. I don't know if that's
 2 the example you're thinking of.
 3 MR. MAZZINI:
 4 A. Exactly.
 5 MR. COXWORTHY:
 6 Q. Sure. You do, and this is at page 56 of your
 7 report, so the next page, cost, there is
 8 reference there in the last paragraph on page
 9 56 to options that were considered by the
 10 consultant, I believe, although I'd ask if you
 11 could confirm and Ms. Gray, if we could turn
 12 to the application for installation of the 100
 13 megawatt CT, Appendix G, page 231. Page 5 of
 14 231, I'm sorry. Is this the report, the
 15 consultant's report and the options that you
 16 had in mind, whichever one of you would have
 17 authored this particular portion of the report
 18 when you're referring to the options that
 19 resulted from the consultant study?
 20 MR. MAZZINI:
 21 A. They were, yes.
 22 MR. COXWORTHY:
 23 Q. And those options were for the purchase of a
 24 diesel generator or diesel generators?
 25 MR. MAZZINI:

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1 A. That was one of the options.
 2 MR. COXWORTHY:
 3 Q. Certainly. And I guess my question then, in
 4 terms of time value, again to go back to that,
 5 if one of the options was to purchase a diesel
 6 generator solution at an earlier point than
 7 the solution was implemented, is there a time
 8 value aspect to the used and useful test in
 9 which you could say, well, if you're going to
 10 purchase that solution, how does that impact
 11 on the used and useful test if you're only
 12 going to get a year's use, as opposed to a
 13 longer period, three years, for example?
 14 MR. MAZZINI:
 15 A. Well one would presume that if the decision
 16 had been made back in 2011 or 2012, then the
 17 costs would have been higher as well because
 18 it would have served for four or five years,
 19 so I think it would meet the used and useful
 20 test in any event. I think the clear
 21 differentiation here is that if it had been
 22 done back then and customers wouldn't have
 23 gone without and Hydro wouldn't have gone
 24 without the capability for that intervening
 25 period.

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<p>1 MR. COXWORTHY: 2 Q. But is there no economic value to having the 3 use of an asset for a longer period of time as 4 opposed to a short period of time, from the 5 customer's point of view? Leave aside 6 avoiding the risk of an outage. 7 MR. MAZZINI: 8 A. Yes, there's obviously a value to having an 9 asset for - 10 MR. COXWORTHY: 11 Q. If you're told you have to spend ten million 12 dollars for the use of an asset for one year, 13 as opposed to the use of an asset for three 14 years, is there not an economic value to 15 choosing the latter option? 16 MR. MAZZINI: 17 A. Sure, surely, yes. 18 MR. COXWORTHY: 19 Q. And there's means of calculating that economic 20 value? 21 MR. MAZZINI: 22 A. Absolutely for a capital investment it's done 23 all the time, yes. 24 MR. COXWORTHY: 25 Q. Sure, and I don't know if Mr. Vickroy can</p>	<p>1 and discount the results to get a present 2 worth. 3 MR. COXWORTHY: 4 Q. Thank you, Mr. Chair, I have no further 5 questions. 6 CHAIRMAN: 7 Q. So Mr. Fleming, sir? 8 MR. FLEMING: 9 Q. No questions. 10 CHAIRMAN: 11 Q. So we're over to us - 12 VICE-CHAIR WHALEN: 13 Q. I have no questions, thank you very much. 14 CHAIRMAN: 15 Q. Do you? 16 MR. OXFORD: 17 Q. No. 18 CHAIRMAN: 19 Q. Do you want us to send a transcript of this to 20 your wife, Mr. Antonuk? 21 MR. ANTONUK: 22 A. I'm afraid she knows me pretty well already. 23 CHAIRMAN: 24 Q. Madam Greene? 25 GREENE, Q.C.:</p>
<p>1 comment on that. 2 MR. VICKROY: 3 A. Sure, could you ask that again? 4 MR. COXWORTHY: 5 Q. Sure, my example was if you're offered the 6 choice of purchasing a ten million dollar 7 asset and told you're going to only have one 8 year's use of it, as opposed to spending ten 9 million dollars and having three years' use, 10 is there an economic value advantage to 11 picking the latter option? 12 MR. VICKROY: 13 A. Really if you're talking about whether to own 14 it or whether to lease it - 15 MR. COXWORTHY: 16 Q. No, I'm not talking about leasing, I'm talking 17 about owning, apples and apples. 18 MR. VICKROY: 19 A. Okay. Surely there would be, I would agree. 20 MR. COXWORTHY: 21 Q. And is there a means of calculating that 22 difference in economic value? 23 MR. VICKROY: 24 A. Well there can be, you can always do a revenue 25 requirements analysis over a period of time</p>	<p>1 Q. I have no re-direct, Mr. Chair. 2 CHAIRMAN: 3 Q. Wow, finito, a miracle. 4 MS. GLYNN: 5 Q. We do have 20 minutes if you just want to hang 6 around. 7 MR. ANTONUK: 8 A. Just don't call my wife. 9 CHAIRMAN: 10 Q. Well thank you very much, gentlemen and 11 participants, we're finished until Monday. 12 MR. ANTONUK: 13 A. And before you go, I'm not here for that, I 14 was just lucky enough to be here for one spot, 15 so - 16 CHAIRMAN: 17 Q. Well we're going to miss you, b'y. 18 MR. ANTONUK: 19 A. I would like to say, you know, thank you to 20 the Board staff and Board for accommodating me 21 for all the time here, I appreciate the 22 opportunity of being able to do so. 23 CHAIRMAN: 24 Q. We do not believe in rancour, at least not in 25 public.</p>

1 Upon conclusion at 1:10 p.m.

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 12th 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 12th day of November, A.D., 2015
12 Judy Moss

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