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2 Yukon Utilities Board
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8 YUKON ELECTRIC COMPANY LIMITED
9 2017/2018 GENERAL RATE APPLICATION
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15 P R O C E E D I N G S
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19 Volume 3
20 June 28, 2018
21 Whitehorse, Yukon
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1 Proceedings taken at the Coast High Country Inn, at
 2 4051-4th Avenue, Whitehorse, Yukon.

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 4 Volume 3

5 June 28, 2018

6	Mr. R. Laking	Chair
7	Mr. A. Fortin	Board Member
	Ms. B. King	Board Member/Vice Chair
8	Ms. M. Hannam	Board Member
	Mr. P. Fitzgerald	Board Member
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	Ms. G. Bentivegna	Board Counsel
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11	Ms. C. Henry	Board Staff
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12	Mr. S. Sharma	Board Staff
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	Mr. D. King	For the City of Whitehorse
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	Mr. R. Rondeau	For the Utilities Consumers' Group
16		
	Mr. J. Maissan	In his own stead
17		
	Ms. D. DiPaolo, CSR(A)	Official Court Reporters
18	Ms. A. Jones, CSR(A)	
19		
20		

21 (PROCEEDINGS COMMENCED AT 9:03 A.M.)

22 THE CHAIR: Morning everyone. Please be
 23 seated.

24 Just a couple of things to start before we start.

25 Those of you not staying in the hotel may not be aware

1 of this, but this morning there's going to be a fire
2 alarm test in the property, and sometime around 10:30.
3 Maybe it'll happen during our break. If it does
4 happen, I presume somebody will come in. I don't think
5 we have to leave the room. It'll be a test, so just so
6 you don't jump out of your seats and run.

7 Okay. So do we have any preliminary matters to
8 start today?

9
10 **UNDERTAKING RESPONSES:**

11 **A. HALL, E. MOLLARD, C. OSLER, G. SRECKOVIC**

12 MR. LANDRY: Thank you, Mr. Chair. We do have
13 one undertaking that we can deal with.

14 Q. So, Mr. Mollard.

15 A. MR. MOLLARD: Good morning. This is the
16 undertaking with respect to incurred GRA costs to date,
17 so to May 31st, OIC's incurred GRA costs are \$719,448.

18 MR. LANDRY: And that, sir, from our
19 perspective, is the only preliminary matter.

20 THE CHAIR: Okay. And you'll update us when
21 the other things come available?

22 MR. LANDRY: Yes.

23 THE CHAIR: All right.

24 Does anyone else have any other matters to deal
25 with before we begin? No?

1 Okay. Ms. Bentivegna.

2 **MS. BENTIVEGNA QUESTIONS THE PANEL:**

3 MS. BENTIVEGNA: Thank you, Mr. Chair.

4 Q. MS. BENTIVEGNA: Morning, panel. I'll start with
5 questions on capital matters or capital projects. If
6 you could turn to Exhibit B-5, it's YUB-YEC-1-64, and
7 it's PDF page 2-38. All right?

8 A. MR. MOLLARD: Sorry, Ms. Bentivegna, can you
9 repeat the page number, please.

10 Q. Certainly. 2-38. It's the responses to Part D of the
11 question. Let me know when you have that. It's to do
12 with the cable replacement.

13 A. MR. MOLLARD: Okay. We're there.

14 Q. All right. So as I was just saying, if you look at the
15 response to D talking about the cable replacement, it
16 states: (as read)

17 "The cable replacement was not part of
18 the original scope of work and was a
19 result of a change order caused by
20 design complications with the pipe
21 bus..."

22 And it goes on. Now, my first question is if you can
23 explain why the YEC engineering department did not make
24 a determination on the adequacy of the wire replacement
25 in an underground conduit.

1 A. MR. MOLLARD: I'll do my best. I'm not -- I'm
2 not an engineer, so it's not my -- my strength
3 technically. But my recollection from this particular
4 installation, it was originally designed to be open
5 air, which would have been fine, but with other
6 problems they had in the substation when they updated
7 the design, they had to put the cables in a trench, and
8 that cable won't perform as well in a trench. So it
9 wasn't part of that -- the trench wasn't part of the
10 original design, and they didn't recognize at the time
11 that they designed the trench that it was going to
12 cause a problem for the cables.

13 Q. And so there wasn't or was there any work done to look
14 at the design once they had to be changed and to be put
15 in a conduit.

16 A. MR. MOLLARD: Yeah, I think that was the step
17 that was missing. They recognized that they had to do
18 the trench. They did not go the extra step to test
19 that cable to make sure it would work in that scenario.

20 Q. So was the YEC engineering department consulted before
21 it was placed once the designs were changed?

22 A. MR. MOLLARD: I -- I really couldn't say, I was
23 not on that part of the project, so I don't know what
24 discussions happened between the project engineers and
25 our engineering department.

1 Q. All right. Thank you. Now, still on Exhibit B-5, it's
2 YUB-YEC-1-72, PDF 2-59. All right. And I'm looking at
3 the statement that starts with: (as read)

4 "Growth and net rate base reflects
5 ongoing need to refurbish old assets
6 and improve grid reliability. A
7 significant reinvestment in existing
8 infrastructure has been undertaken
9 since 2013 to ensure that the Yukon
10 integrated grid can continue to meet
11 the unprecedented level of growth on
12 the system in a safe and reliable
13 manner."

14 And in the question, YEC was asked what it meant by
15 "unprecedented level of growth in the system," and I
16 have some questions on YEC's response which said that
17 the sentence should be amended as follows for the
18 current GRA: (as read)

19 "Ongoing reinvestment in existing
20 infrastructure ensures that the Yukon
21 integrated grid can continue to meet
22 loads on the system in a safe and
23 reliable manner."

24 And could you clarify for us what the -- the change in
25 the wording and what you meant by why it was re written,

1 the sentence.

2 A. MR. MOLLARD: Yeah. Simply put, the level of
3 growth really doesn't relate as much to the reliability
4 of the system. The existing assets -- we were trying
5 to focus -- the attention on the quote was towards
6 existing assets, reaching end of life and being needed
7 to be replaced on a like-for-like basis. That doesn't
8 change relative to the level of growth on the system,
9 per se, so that's why we took out that reference.

10 Q. All right. Thank you. And so therefore, at this time,
11 is the Yukon grid, integrated grid, experiencing
12 unprecedented growth? I know you've just told me that
13 it wasn't related, but if you could expand on whether
14 it is or it isn't.

15 A. MR. MOLLARD: Sure. And we've talked about this
16 a little bit over the last few days in some of the
17 documents. So we're experiencing the -- the issue with
18 our sustaining capital and refurbishing what we've got
19 on the system. On the growth side of things, it's now
20 more focused on the capacity shortfall. So coming out
21 of the resource plan and identifying that we've got a
22 gap there that we need to address. So in terms of the
23 growth on the system, in my words, that means I've got
24 a capacity issue today that I need to address, and
25 that's where our focus on some of the studies and

1 looking at the battery plant, the thermal plant, and
2 those other projects to help with that capacity
3 shortfall.

4 Q. And on the unprecedented growth, can you just give us
5 what's causing this unprecedented growth?

6 A. MR. OSLER: Just to be helpful, on the word
7 "unprecedented" growth, I think, to be blunt, if you
8 looked at the prior GRA in the same section, you might
9 find exactly the same words, and you might come to the
10 conclusion that this was simply an error in developing
11 this GRA in this section, and the word should not have
12 ever been used. It had a relevance in the last GRA.
13 The last thing we were thinking of when this GRA was
14 prepared was the word "unprecedented" growth. So it's
15 an error.

16 Now, there are issues with respect to capacity
17 that we didn't have last time, and Mr. Mollard can
18 respond to that, but I think this word is just a
19 mistake; it's -- it should not have been in this GRA,
20 and was a holdover from the previous one when we did
21 talk a lot about growth, which stopped after 2013.

22 A. MR. HALL: Mr. Chair --

23 Q. Oh, please, Mr. Hall?

24 A. MR. HALL: Just to sort of paint the picture
25 of what growth is happening on the system, so, you

1 know, I think if you look at growth in energy sales,
2 which really relates to long-term population and
3 economic growth in the territory, we have seen some
4 recent evidence of -- of that, particularly in the last
5 year. And I think I referenced that in my opening
6 statements that, you know, the prospectively looking
7 forward of these return of activity in the resource
8 sector. To speak to Mr. Mollard's point about growth
9 in our capacity, so our peak, peak demand growth, that
10 related a lot to trends in the way how new homes are
11 built and heated. So we're seeing, in particular new
12 construction being electrical, a lot of electrical
13 heat, particularly in new subdivisions, and so that
14 could be a direct driver of increased peak, peak
15 demand.

16 Q. All right. Thank you. Now, if you can turn to the
17 application Exhibit B-1, and I'm looking at
18 Appendix 5.3, and it's PDF page 2-49. Yes, if you've
19 got the paper copy, it's page 5.3-6.

20 All right. Now, on that page, YEC states:

21 (as read)

22 "YEC requires access to transmission
23 lines for maintenance and inspection
24 and brushing activities. Currently a
25 number of temporary access points are

1 used that lack the necessary permitting
2 and may not be constructed to an
3 acceptable standard. This project will
4 complete the required assessment
5 process in order to obtain the
6 necessary permits."

7 And then it goes on. My question to you is can you
8 explain whether YEC may use temporary access points
9 without a permit? Because I'm wondering why didn't...

10 All right. Thank you. So my question was whether
11 YEC's allowed to use access points, temporary access
12 points without permitting.

13 **A. MR. MOLLARD:** Yes, this was addressed in a one
14 of the IRs, YUB-1-73. We -- previously to 2017, we
15 would use exactly that approach. Existing trails were
16 used for access ways to access into transmission lines.

17 During 2016, our regulator became aware of that
18 situation due to an event around a brushing crew, and
19 they advised us at that time that temporary accesses
20 would no longer be allowed and that we needed to
21 designate permanent accesses and have permanent permits
22 on that access ways. At the same time, we recognized
23 that based on recent condition assessments, many of our
24 transmission lines were going to require major
25 refurbishment. So we felt it prudent at this time to

1 go out and do the work, establish the permanent access
2 so when the crews come through to do the upgrades, the
3 accesses are there and there's no permitting issues.

4 Q. And you said your regulator. Which one?

5 A. MR. MOLLARD: Highways and Public Works Yukon.

6 Q. And so these were accesses off the highway?

7 A. MR. MOLLARD: Off the road, yes.

8 Q. And now -- so, then, are these -- do you consider them
9 temporary, or are they now permanent access points that
10 you have to your transmission line?

11 A. MR. MOLLARD: They're now permanent. We have to
12 maintain those accesses to the transmission
13 right-of-ways.

14 Q. Thank you. Now, if you can back to Exhibit B-5, and
15 it's PDF page 2-98. It's YUB-YEC-1-81. It's to do
16 with the retrofit of street lights.

17 Now, in that response, YEC states: (as read)

18 "With respect to YEC projects to replace
19 street lights in its franchise area, the
20 utility intended to absorb any existing
21 rate base costs for existing land
22 fixtures. This decision was based on
23 the assessment of the vintage of the
24 streetlight asset pool, as well as the
25 relatively small -- the small size of

1 this asset grouping relative to YEC's
2 total portfolio."

3 And then it goes on, the response.

4 Now, my question is: Could you provide some
5 clarification on the response, because YEC's initial
6 response was that the utility intended to absorb any
7 existing rate base costs for existing land fixtures,
8 but -- and it suggests so that YEC was bearing the
9 costs; but, however, YEC's statement that the
10 application -- sorry -- the application request that the
11 system pay the costs suggests that the ratepayers should
12 bear the costs. So I'm just wondering, which is it?

13 **A. MR. MOLLARD:** **Sure. So the reference to us**
14 **absorbing the costs would be absorbing the existing**
15 **cost of the old street lights in rate base. I am**
16 **asking to be paid for the costs to purchase and install**
17 **LED streetlight heads, but the existing costs I've**
18 **written off to -- to shareholder expense.**

19 **Q.** So what's being charged to ratepayers is then, if I
20 understand you correctly, is the new light heads.

21 **A. MR. MOLLARD:** **Yes.**

22 **Q.** All right. Thank you. Now, going back to the
23 application, Exhibit B-1, PDF page 2-58 -- it's at the
24 very bottom, the statement I'm interested in -- and
25 it's Appendix 5.4. Let me know when you have that.

1 **A. MR. MOLLARD:** **That's 2-59.**

2 **Q.** Sorry, 2-58.

3 **A. MR. MOLLARD:** **8.**

4 **Q.** And it's I'm referring to the PDF page.

5 All right. Now, the statement that YEC makes is:

6 (as read)

7 "This project will assess the options of
8 moving the Dawson and Mayo diesel plants
9 from their present locations. There are
10 a number of reasons this is being
11 considered, including plant noise and
12 flood risk at the current downtown
13 locations, as well as the benefits of
14 having the diesel generators closer to
15 the substation."

16 That's the Mayo Hydro and Callison: (as read)

17 "The study will determine the costs,
18 impacts, and options and make
19 recommendations of relocating diesel
20 plant -- each diesel plant."

21 Now, can you explain what the drivers are for this
22 feasibility study with respect to noise, and is the
23 noise applied to each of these plants?

24 **A. MR. HALL:** **Mr. Chair, I think just to step**
25 **back a second, that overall there's a couple of drivers**

1 that have led us to -- to undertake the study, the
2 first being that, if you look at the age of some of the
3 infrastructure that we have -- in particular, our
4 Dawson diesel plant area -- it's quite old, it's not in
5 great condition, and we frankly have started to receive
6 complaints from the community because it's located
7 right in downtown Dawson.

8 And so, you know, there's -- there's issues
9 related to the condition of the physical
10 infrastructure. The other important point to note is
11 that, when we reviewed the integration of the
12 prospective Eagle mine into the grid, the focus on the
13 operations of the northern grid become important, and
14 then that relates to -- to the location of -- of where
15 your diesel generation is, and it just puts more
16 emphasis on the reliability of the northern grid under
17 contingency events where we might have to split our
18 grid and run the mine -- run the grid in the north
19 serving the mine from Mayo Hydro and our available
20 diesel assets. And also, electrically, the location
21 of diesel plants becomes important when you have a
22 major mining load in a place such as the Eagle mine.

23 So it just was a juncture for us to, as we look to
24 our planning going forward, recognizing that we will
25 have to make investments in our thermal fleet over

1 time, that we just pause and look at a long-term
2 strategy for where those diesel units might get
3 located. And this -- this study really brings together
4 all those drivers into a technical feasibility-type
5 study.

6 The specific question relating to noise I believe
7 relates mostly to the Dawson plant, as I -- as I
8 mentioned. I mean, it is located in downtown Dawson.
9 It's a very visible location right next to residential
10 homes, and so noise, noise pollution in an environment
11 like that is important.

12 Q. And just to go back to something you said about the
13 mine load, I thought I heard you say the Victoria Gold.

14 A. MR. HALL: Correct.

15 Q. And was that considered when negotiating the PPA
16 agreement --

17 A. MR. HALL: Well, it --

18 Q. -- and the PPA proceeding?

19 A. MR. HALL: Mr. Chair, at this time, we don't
20 see any immediate need for investment. It's more just
21 looking at the future, long-term location. You know,
22 the mine load itself, we're not quite sure how long
23 that mine's going to be connected. I mean, that's a
24 feature of any mine load is uncertainty about the
25 duration of -- of that load on the system. I think

1 this is more just a focus on really being strategic
2 about our investments over the long term.

3 Q. And so then with regards to the noise from the Dawson
4 diesel plant, had there been any studies done as to
5 measurements of the noise from these plants? I heard
6 you say that you had complaints, but have you actually
7 measured the noise to see what you might need to
8 address?

9 A. MR. MOLLARD: No; at this point it was largely
10 just concerns expressed by the community. The primary
11 driver of the study is around the age of the assets and
12 what the condition of the grid is and where it makes
13 sense best to have the replacement generation when we
14 do get to that point. How much do we need and where do
15 we need it is the primary driver. Secondary
16 consideration is around noise, pollution, all that sort
17 of thing.

18 Q. And both you and -- Mr. Mollard, both you and Mr. Hall
19 have referred to the age of the asset. How old are
20 these diesels?

21 A. MR. MOLLARD: It's -- yeah, and it's a
22 combination of the building and the -- I think the
23 new -- if I -- subject to check, I think the newest
24 engine is about vintage '91. Everything is older than
25 that and approaching end of life.

1 We also have major issues with the building
2 envelope. Up until 2004, that was -- that building was
3 running 24/7, so things like building heat and
4 insulation, we didn't worry about. You could stand in
5 the middle of that plant and see out through every
6 wall, with all the holes and things that had developed
7 over the years. Now that it's a standby plant, it's
8 proving to be a bit of a maintenance headache. The
9 heat just evaporates through the walls; it's very
10 difficult to keep it up to temperature and warm, so the
11 building envelope is also part of that equation.

12 Q. All right. Now, with regards to the Mayo plant, diesel
13 plant, is that -- because I'm still not clear whether
14 both are noise issues or both are flooding issues,
15 so --

16 A. MR. MOLLARD: Yeah.

17 Q. -- if there's a distinction, please make it.

18 A. MR. MOLLARD: Mayo was a flood issue. We had a
19 flood event there. If you're familiar with Mayo,
20 there's a -- there's a berm that separates the downtown
21 from the -- from the river, and during the event, we
22 discovered everybody referred to it as a dike, but a
23 dike is actually a water control structure and that
24 thing is not a dike. The water goes right underneath
25 of it, and we had ice a couple of feet thick ploughing

1 into our diesel plant. So it's on a floodplain. I
2 don't believe -- we don't generally have to run the
3 Mayo plant, it's further down in our stacking order, so
4 the noise issues are less there because they're just
5 not run. But the -- there's definitely that flood --
6 flood risk from the river there.

7 Q. And so would your study then be looking at the noise
8 from that plant if there isn't an issue in that -- if
9 you can explain where it's located in relation to the
10 residences or town.

11 A. MR. MOLLARD: Yeah, it's -- and it is -- I
12 wouldn't say it's in the middle of downtown, but our
13 neighbours are residences, and we have had complaints
14 at times in the past. Again, never done a study, it's
15 just anecdotal evidence from the community, but it is
16 adjacent to residential properties in the town of Mayo.

17 Q. So then -- so was it only that one event, flooding
18 event, or have there been a number with the Mayo diesel
19 plant?

20 A. MR. MOLLARD: In my time, I think there was just
21 the one flooding event.

22 Q. And so when that happened, did the -- did the diesel
23 plant have to go offline because -- was it under water
24 or did the water reach it or it was threatened?

25 A. MR. MOLLARD: Yeah, it was threatening. We were

1 able to get contractors in to take mitigative steps to
2 keep the water out of the equipment. The equipment
3 itself was not flooded, and fortunately, we didn't
4 require at the time, so we were able to isolate the
5 plant and -- so that there was no damage, but it
6 wouldn't have been available to us during those times,
7 which obviously is not a -- not a great situation,
8 either.

9 Q. And what's the vintage of the Mayo diesel plant, the
10 units in the --

11 A. MR. MOLLARD: Yeah, I think we have -- we have
12 three modular units there. Again subject to check, I
13 think they're probably '90s vintage, as well. They're
14 smaller, smaller units, a megawatt and less, but I
15 think they're '90s units.

16 Q. And would -- if they're, subject to check, '90s,
17 wouldn't they still have quite a bit of life in them?

18 A. MR. MOLLARD: I believe so. They don't run very
19 often, so with those engines it tends to become more a
20 question of obsolescence, whether the manufacturer
21 continues to support them, provide parts and that sort
22 of thing. As I mentioned, I think they're modular, so
23 they're transportable. I can -- if I -- operationally
24 we'd like to have them up at the substation near the
25 hydro plant, so with some relatively minor

1 modifications, we could move them there. They're
2 completely out of the community so we don't have the
3 noise issue, and they'll still serve their purpose.

4 Q. Then, from your response, I'm trying to understand why
5 you need, then, a study for that. If you know that you
6 can move it, they're modular, and it doesn't involve a
7 lot of costs, from what your response suggests, can you
8 explain why you need a study to do that?

9 A. MR. HALL: Mr. Chair, I think the -- you
10 know, as I referred to before, we have a number of
11 things looking forward that are going to change. I
12 mean, we're facing a retirement of a unit in Faro, and
13 so the question, you know, gets posed, operationally,
14 you know, how much thermal generation do we require in
15 Faro? I mean, we had -- we had generation thermal
16 units in Faro historically because of the mine, but now
17 that the load is substantially lower in the town of
18 Faro, it starts to -- it's an opportunity to ask these
19 questions, right, about where -- where we should
20 distribute diesel generation through the northern grid.
21 And so, you know, from a management perspective, we
22 felt it was appropriate to take a step back and just
23 generate a long-term plan that really identifies where
24 those assets should be located and if -- are there
25 opportunities to -- to make the kind of relocation that

1 Mr. Mollard referred to.

2 A. MR. MOLLARD: Yeah. I didn't want to imply that
3 the move to Mayo substation was the solution; it was
4 one of the solutions. We also have a major substation
5 at Stewart Crossing that we're looking at, whether it
6 makes sense to have generation there. The changes on
7 the system since the Mayo and diesel -- Mayo and Dawson
8 diesel plants were set up, the interconnection between
9 Mayo and Dawson, the interconnection between north and
10 south grids were not there when those plants were
11 originally built, so it's looking at that new system
12 and saying where should these engines be from a systems
13 stability perspective.

14 Q. Thank you. Now still on your application,
15 Appendix 5.3, PDF page 2-49, and I'm looking at the
16 Dawson P158 T1/T2 transformers. If you -- what I'm
17 referring to, or drawing your attention to is the
18 statement, YEC statement that: (as read)

19 "There are a number of significant
20 safety concerns with the configuration
21 of the main transformer at the Dawson
22 diesel plant. The clearance to ground
23 of live conductors is inadequate and
24 the fence around the installation is
25 only six feet tall and the adjacent --

1 and adjacent to a public area."

2 And it goes on to what the project would involve. Now,
3 when was this transformer constructed, and what was the
4 cost of that construction if -- I mean, if you don't
5 have it on hand, I'll take an undertaking.

6 **A. MR. MOLLARD:** **Subject to check, I believe that**
7 **transformer was installed as part of the Mayo to Dawson**
8 **transmission line project in 2004. I don't have the**
9 **broke out -- the costs broken out in my head from that**
10 **project. It was all part of the 36 million we spent on**
11 **that.**

12 **Q.** Sir, what was that last --

13 **A. MR. MOLLARD:** **The whole --**

14 **Q.** -- part?

15 **A. MR. MOLLARD:** **-- project was \$36 million.**

16 **Q.** Okay.

17 **A. MR. MOLLARD:** **It was buried in there somewhere.**

18 **Q.** Okay. Can you provide that, the cost of the
19 transformer --

20 **A. MR. MOLLARD:** **Can do.**

21 **Q.** -- please? Thank you.

22 **UNDERTAKING - TO PROVIDE THE COST OF**
23 **THE TRANSFORMER THAT WAS INSTALLED AS**
24 **PART OF THE MAYO TO DAWSON TRANSMISSION**
25 **LINE PROJECT IN 2004**

1 Q. MS. BENTIVEGNA: And at the time it was built in
2 2004, were there ground clearance and fencing height
3 standards for transformers?

4 A. MR. MOLLARD: I'm afraid I can't answer that. I
5 don't know.

6 Q. Could you endeavour to find out?

7 A. MR. MOLLARD: Sure.

8 UNDERTAKING - TO ADVISE AS TO WHETHER,
9 AT THE TIME THE TRANSFORMER WAS BUILT
10 IN 2004, THERE WERE GROUND CLEARANCE
11 AND FENCING HEIGHT STANDARDS FOR
12 TRANSFORMERS

13 Q. MS. BENTIVEGNA: Thank you. And then when looking
14 into it, my -- I wanted to follow up with whether at
15 the time, if there are standards -- if they're not,
16 then please let me know or let us know -- whether it
17 was built to the standards at the time or not.

18 A. MR. MOLLARD: Sure.

19 UNDERTAKING - TO ADVISE AS TO WHETHER
20 THE TRANSFORMER THAT WAS INSTALLED AS
21 PART OF THE MAYO TO DAWSON TRANSMISSION
22 LINE PROJECT IN 2004 WAS BUILT TO THE
23 STANDARDS AT THE TIME

24 Q. MS. BENTIVEGNA: Now, still on the main
25 application B, Exhibit B-1, and this relates to PDF

1 page 1-85, the communication upgrades. And then if you
2 can also pull up in Exhibit B-7, CW-YEC-1-37-D, and
3 that's page 23 -- PDF page 2-38.

4 THE CHAIR: Sorry, Ms. Bentivegna, what was
5 the PDF reference? I have 164 pages in this.

6 MS. BENTIVEGNA: Right. Well, in the -- for the
7 application, that was what --

8 THE CHAIR: Oh.

9 MS. BENTIVEGNA: -- PDF page 1-85. And then for
10 the CW response, CW-YEC, that's -- I'm using
11 Exhibit B-7, page 2-38, PDF page 2-38.

12 A. MR. MOLLARD: There's only 164 pages in --

13 Q. Well, we're just checking that.

14 A. MR. MOLLARD: Do you have the interrogatory
15 number.

16 Q. Yes. It's Interrogatory 1-37(d).

17 A. MR. MOLLARD: That's PDF page 1-07.

18 Q. Sorry, I'm just told that we have the wrong
19 interrogatory number. We'll look for it.

20 My -- what I wanted you to look at while we look
21 is that, in the application -- and you have that, I
22 understand, before you -- the statement I'm looking at,
23 is: (as read)

24 "This project involves installing a
25 fibre optic link from WRGS to Takhini

1 substation, and that cost -- there's a
2 cost beside it of .200 million; McIntyre
3 substation, .030 million; and Kulan
4 warehouse, .020 million. The fibre
5 connection will allow for more reliable
6 and flexible communication, as well as
7 creating the backbone for the redundant
8 data, for redundant data centre at
9 Takhini substation planned for 2019."

10 And then it goes on to say: (as read)

11 "1.113 of spending occurred in 2015 to
12 install the fibre link as WRGS between
13 SCC Riverdale Substation S -- the
14 substation number being 171 WH 4 and the
15 fish ladder."

16 Now, in the -- in one of the responses that we're trying
17 to find, and subject to check, is it states that:
18 (as read)

19 "Improved reliability having multiple
20 paths to get data from sites -- from
21 site to site creates redundancy that
22 will result in fewer outages and less
23 travel to remote sites for
24 troubleshooting. Having two links
25 provides the ability to work on one link

1 remotely with no downtime, something
2 that would have previously taken two
3 people, one on each end combined with
4 travel to the remote site. This
5 currently occurs multiple times a year
6 per site. This project will also allow
7 for full backup location for system
8 control so that a loss of the Whitehorse
9 office does not result in full loss of
10 SCADA control of the grid."

11 So --okay. So that was PDF 137, sorry, 107 where I
12 read, what I just read from. So if you -- hopefully now
13 you have --

14 **A. MR. MOLLARD:** Okay. So we have the reference.
15 Sorry, can you repeat the specific question you wanted
16 on that.

17 **Q.** No, I hadn't gotten to it yet. I was just making sure
18 that you had it.

19 **A. MR. MOLLARD:** We have the references.

20 **Q.** All right.

21 **A. MR. MOLLARD:** We're good. It's PDF page 1-07.

22 **Q.** Yes. Now, the -- I'm looking at the statement that the
23 work, the proposed work that will allow for redundancy
24 of a data centre at Takhini substation. Is it
25 foreseeable that YEC may request additional FGEs in the

1 future that would be situated in Takhini -- if I'm
2 saying that right, the name place.

3 A. MR. MOLLARD: Takhini. Pretty close. No, the
4 redundancy is -- is part of our disaster recovery
5 planning, so the idea will be that we'd have redundant
6 IT hardware at the Takhini substation in the event, for
7 whatever reason, we don't have access to our head
8 office site here, we'll be able to switch control over
9 to the substation. We won't have people there because
10 it's a substation, there's no place to work. The fibre
11 communications would go to Kulan where we do have other
12 facilities where people can actually work in the event
13 that, again, they're not able to access the head office
14 location.

15 Q. All right. Thank you. And can you comment on the
16 nature and quantum of risk posed to YEC's
17 infrastructure that would warrant this type of
18 expenditure to create a redundant data centre. You
19 said it was part of your data recovery effort in the
20 case of an event, I would imagine, but can you
21 elaborate?

22 A. MR. MOLLARD: Well, we're -- we're a high
23 consequence earthquake zone, and head office is right
24 below the dam in Whitehorse, very simply put. So there
25 is a risk that, you know, in the event that something

1 happened with the water retaining structures in
2 Whitehorse, our plant would be -- our office space
3 would be affected most directly, and that is all of our
4 IT and SCADA is -- is resident in that office building.

5 Q. And can you comment on the likelihood of such a risk?

6 A. MR. MOLLARD: Well, it's at --

7 A. MR. HALL: Yeah, Mr. Chair, I mean, we always
8 hope that earthquakes never happen, but we actually had
9 a fairly sizeable earthquake last summer in Whitehorse.
10 And it just brought -- brought to mind the fact that,
11 as Mr. Mollard referred to, we are in a high-activity
12 seismic zone.

13 We don't have a quantification of that risk, but
14 we felt it prudent to update our disaster recovery
15 planning, which is quite typical of a hydro utility to
16 look seriously at that, both as it relates to our
17 control structures, so our dam structures, but also,
18 you know, the IT infrastructure required for us to
19 maintain service in the event of a -- of a disaster in
20 the Whitehorse area. And so the requirement for an
21 alternate site came up as a key part of that plan, and
22 the Kulan site was identified as where the physical
23 location would be of the workers that would relocate,
24 and it would only be a subset of our staff that would
25 go there, but then you'd obviously need the

1 communications to send data to that site, and that's
2 reached via Takhini.

3 A. MR. MOLLARD: And we did have an event. It
4 wasn't an earthquake, but we had a fire in 1997 that
5 did exactly as I described, wiped out all of your
6 office space. We had no IT, we had no -- no system
7 control. Now, the system was very different back then.
8 The operators were able -- could physically run the
9 system by radio. They had a man in a truck here, and
10 they had substation guys out looking after the feeders
11 and the hydrogeneration plants. Our system's not like
12 that. The OT has come to the point now where you can't
13 just run the system manually, you have to have that
14 data connectivity with your -- with your plants to be
15 able to run the system.

16 Q. Thank you. Now, I was also wondering if the -- having
17 redundancy in place, would it mitigate at all outages
18 or the possibility of outages, or would it address
19 whether an outage in the past could have been mitigated
20 by such redundancy or not?

21 A. MR. MOLLARD: I don't think it's a direct link
22 between outages. It's not that -- that there'll be
23 signals that'll come that will allow the system to
24 react. I mean, certainly communication will be faster,
25 but we'll have better -- we'll be able to bring more

1 data points back to the plant, and it'll help us with
2 diagnoses of outages. So indirectly it'll affect,
3 it'll help with outages just being able to gather more
4 data on outages on when they happen and why they are
5 caused, and then we can rectify that system, but I
6 don't want to imply that there's a direct link between
7 that and the outages.

8 Q. All right. Thank you. Now I'm going to B-10, which is
9 the UCG-YEC-1-10, and it's Part D of the question. And
10 it's PDF page 48. And this is to do with the DSM
11 program. Now, in that response to UCG, YEC states that
12 -- it quotes AEY and from AEY's 2016/2017 GRA in which
13 AEY states: (as read)

14 "As shown on Table 2 of this report,
15 the deemed energy savings in Year 1 and
16 Year 2 of the program resulted in a
17 reduction of 6,454 megawatts and 9,015
18 megawatts respectively."

19 And then it refers to a graph and that AEY experienced a
20 reduction in residential and commercial use per customer
21 since 2012 and that AEY could not attribute the
22 reduction in use per customer solely to DSM initiatives,
23 and that it refers to it might include to micro
24 generation, commercial energy initiative program, and
25 the DSM program.

1 So my question to you is in relation to the DSM
2 program -- and you confirmed yesterday that at this
3 point, there aren't any new programs in the test years
4 for DSM purposes. Is that correct?

5 **A. MR. MOLLARD: That is correct.**

6 **Q.** But that you're undertaking a feasibility study
7 regarding a DSM program, I believe for commercial. Is
8 that correct, or any new programs?

9 **A. MR. SRECKOVIC: Mr. Chair, we're conducting a**
10 **study for two DSM programs; one is aimed for energy,**
11 **another -- another one is aimed for capacity**
12 **reductions.**

13 **Q.** And can you give us some details on -- I mean, I know
14 you're at the study stage, but what do you mean by
15 "energy" and then "capacity"? So if you can just flesh
16 that out for me, please.

17 **A. MR. SRECKOVIC: In general terms, DSM programs**
18 **could be twofold: One -- one direction is to realize**
19 **savings in terms of energy, in terms of gigawatt hours,**
20 **and the other direction is to reduce peak load, peak**
21 **demand.**

22 **Q.** Sir, that last part, I missed it.

23 **A. MR. SRECKOVIC: The second one is to reduce peak**
24 **demand. So the first one is to reduce energy in terms**
25 **of gigawatt hours; the second one is to reduce peak**

1 demand in terms of megawatts. So for example, to
2 reduce our maximum daily peak load for, let's say, 93
3 megawatts to, hypothetically speaking, 89. Capacity,
4 peak demand, yes.

5 Q. And so when you've designed the study, which classes of
6 customers are you looking at? Are you looking at
7 residential, commercial; which? Industrial, for
8 example, mine load?

9 A. MR. SRECKOVIC: The consulting company we -- we
10 hired to propose a different methodology will come up
11 with a proposal of several programs, and then we will
12 select the most beneficial program. So at this point
13 in time, we're still assessing DSM programs both for
14 capacity and for energy.

15 Q. And can you explain what's driving this? Is there
16 Yukon government funding for this? What's driving for
17 YEC to look again at this issue of DSM?

18 A. MR. SRECKOVIC: Mr. Chair, I would like to step
19 back and to go back to our Yukon Energy's 2016 resource
20 plan. Resource plan is Part 4 on how to meet energy
21 demands over the next 20 years, and we analyzed the gap
22 between future needs and existing capabilities, and try
23 to figure out how to fill the gap by resources so that
24 the future action plan is cost-effective,
25 environmentally friendly, and socially responsible. We

1 analyzed a range of potential future resource options
2 and DSM was -- was one of those options. And DSM came
3 to the top of the list. Economically affordable, DSM
4 came to the top of the list. And so DSM is one of the
5 options that was selected to fill the gap between
6 future demand and current capabilities of the system.

7 A. MR. MOLLARD: And, Mr. Chair, just for some
8 history, when we proposed DSM through a separate panel
9 in the ATCO Electric Yukon proceeding in 2013 to '15,
10 we had proposed, I believe, seven programs, and the
11 direction at that time from the Board was to do the
12 three residential programs and prove that we could be
13 successful at that. So we feel we've done that, we've
14 put evidence on the record that those programs have
15 worked, and so it's, you know, natural progression to
16 now take the next range of energy programs forward to
17 safe -- as my colleague says, as affordable options,
18 supply options, so it makes sense from our perspective
19 to bring those forward at this time.

20 Q. And is there -- the other part of the question: Is
21 there government funding or government initiatives
22 regarding DSM that are in place?

23 A. MR. SRECKOVIC: We're -- we're always keen on
24 government help, and -- and we -- for example, we
25 applied for a government funding for a pilot program

1 for a capacity DSM. It would be fantastic if we -- if
2 we received that help, and we hope we will. Having
3 said that, that is not the major driving force.

4 Q. Mr. Hall, sorry?

5 A. MR. HALL: Yeah, Mr. Chair, just to add to my
6 colleague's comments, there are a few Yukon government
7 programs in the area of energy efficiency. But they
8 don't necessarily target the same programs that we
9 would select. I mean, ours are very economically
10 driven, as Mr. Sreckovic outlined. It's directed
11 towards efficiency programs that deliver the greatest
12 benefit, in terms -- economically. You know, if you
13 looked at what the Yukon government's doing, they have
14 different considerations. It's not -- not always about
15 economics for those government programs. And so hence
16 we feel that it's appropriate for us to -- to -- to
17 undertake our own independent energy efficiency or DSM
18 programs.

19 Q. And just to follow up on that, I'm trying to understand
20 what the need is if there's already government programs
21 addressing DSM for the -- for YEC to even undertake a
22 study and spend money on that, rather than working with
23 government and having government-funded programs
24 simply.

25 A. MR. HALL: Mr. Chair, I think the example of

1 capacity DSM is a -- is a very relevant example. So
2 Mr. Sreckovic outlined that one of the areas that we'd
3 like to focus on in a prospective DSM program would be
4 programs that bring down peak, peak demand. Because
5 what we're saying is growth in those peaks over time.

6 Now, there's -- you know, big picture, there's two
7 ways you meet that growth. You either build a new
8 asset -- typically a thermal plant to meet that peak
9 load -- or are you bring that peak down. So you remove
10 the problem to begin with. And bringing that peak down
11 is all about -- can be addressed through an
12 appropriately designed DSM program.

13 Now, what we're finding is that the Yukon
14 government programs aren't necessarily targeted at that
15 kind of benefit, and so, you know, we feel that we need
16 to investigate our own programs that specifically go
17 after that objective.

18 Q. Following up on that, if the -- given that there's a
19 limited opportunity for YEC to sell its surplus power
20 and that peak demand is the deciding factor in how much
21 capacity YEC installs, is it prudent to continue to
22 promote DSM in that, when you're looking at it, if
23 you're reducing the peak demand, how will that -- you
24 said that that's what you would be looking at. How
25 would that affect the sales -- or if there's less --

1 less peak load, what would be the impact on YEC?

2 A. MR. HALL: Mr. Chair, I don't think there's
3 really a relationship between the issue of surplus
4 energy over a year and the instantaneous peak demand
5 that we may face on a cold winter morning, for example.
6 They're a fairly discrete phenomenon in some respects.

7 A. MR. MOLLARD: And just with respect to the DSM
8 energy programs, we did touch on this a little bit when
9 we were originally doing the approvals. DSM in their
10 nature are particular, the programs that we're running
11 are behavioural programs, and it's difficult to turn
12 them off and start them up again.

13 So even though today you may be in a period where
14 you're not necessarily looking for additional energy,
15 it's fairly low cost to keep the program going. If you
16 shut it down to get the benefit back when you do have
17 that energy shortfall, you have a big ramp-up period.
18 So our understanding from discussions with experts in
19 the industry is that you want to keep a stable presence
20 in that -- in that -- that space so that it's always
21 there for you.

22 Q. Now, going back to your application on -- it's
23 Exhibit B-1, the executive summary, PDF page 86. And
24 then, as well, I'm going to refer to Section 5.2.1.4,
25 PDF page 1-83, and it's regarding the SCADA

1 communication upgrades. And what I'm referring to on
2 PDF page 1-83 is the statements regarding: (as read)

3 "The independent consultant completing a
4 communication needs assessment, and made
5 recommendations to improve the critical
6 elements such as the supervisor's end
7 data -- supervisory control and data
8 acquisition SCADA system features and
9 improved network performance,
10 reliability, redundancy, and security."

11 And then it goes on to say: (as read)

12 "A proposed system design was provided
13 with recommendations for staged
14 implementation focusing on the most
15 critical assets or initiatives first and
16 progressing towards the less critical
17 ones with the eventual goal of covering
18 the whole YEC's communication system."

19 So there's that. And then when -- if you look at YEC's
20 response to the City of Whitehorse, it's IR 1-37,
21 Exhibit B-7, and in that YEC explains the need for the
22 SCADA upgrades, and what I'm referring to is the
23 statement that: (as read)

24 "This project will also allow for full
25 backup location for system control so

1 that a loss of the Whitehorse office
2 does not result in a full loss of SCADA
3 control."

4 However, with respect to outages in the GRA executive
5 summary which I first referred to, PDF page 86, YEC
6 states that its outages were of shorter individual
7 duration and of shorter total duration for the -- for
8 YEC and compared to the Canadian Electricity Association
9 averages. And what I'm interested in is if you can
10 provide any information on the number of outages over
11 the past five years that would either have been avoided
12 or what have been of a shorter duration had the SCADA
13 upgrades already been in place. Or is there no
14 connection to what's happened in the past regarding
15 outages?

16 **A. MR. HALL:** Mr. Chair, I think the short
17 answer is we don't have data that -- with us right now
18 that directly links outage frequency to the
19 communication specifically. I think the need is -- is
20 a bit more broad than that, in terms of when running a
21 critical hydro unit like our Aishihik plant, you know,
22 relying on a single communication link is -- introduces
23 risk because, if that link goes down for whatever
24 reason, you're basically running blind, you can't see
25 the plant from our control system. And so putting in

1 re redundancies so you've got a backup, you know, is
2 important for -- for operation of a system that over
3 time is becoming more complex, more data. You know, an
4 important example is we have another project to upgrade
5 the Aishihik controls, and as part of that project,
6 we're gathering a lot more data from instruments in the
7 hydro plant. And you want to get all that data back to
8 your main control room, so the level of sophistication
9 over time is increasing. We were living in the era of
10 big data, lots of information, and so when you're
11 living in that environment of more data, you've got to
12 make sure you can get it, and so the need for
13 redundancy arises. I mean, we're seeing that in the
14 Yukon more generally where having a backup fibre link
15 to the Yukon was a major issue, and then we recently
16 secured that. So that's a great analogy, right; this
17 is the plant version of what the Yukon's faced in the
18 last 30 years.

19 A. MR. MOLLARD: And I do have one example where we
20 have an issue now: We rely on Northwest Tel's
21 communication infrastructure going north, and it's
22 fairly well known that the link that goes across the
23 rivers to a crossing and serves our Dawson and Mayo
24 plants is somewhat fragile, and they don't have the
25 same service requirements as us, so we have had outages

1 on that line that basically our operators could no
2 longer see those plants. Northwest Tel doesn't do
3 after hours or weekend callouts, so we've had no
4 communications for a weekend and have had to call out
5 staff to man those plants manually because we have no
6 visibility on them. So just by way of an example, that
7 would be one of the things that this would -- this
8 would correct for us.

9 Q. And so was there any analysis done -- I mean I gather
10 from what Mr. Hall was saying -- regarding outages and
11 regarding how the upgrades, the SCADA upgrades, would
12 respond to that issue? And I'm not clear; if you could
13 clarify.

14 A. MR. MOLLARD: Yeah, I don't believe we do -- do
15 have that.

16 Q. And would it be -- or do I gather, then, from your
17 response that it wouldn't be useful or you wouldn't
18 have the information about looking at outages and
19 whether the upgrades to the SCADA system would have
20 addressed some of those outages.

21 A. MR. HALL: Mr. Chair, I think as I outlined
22 earlier, it's -- although, you know, we talked about
23 reliability as being one of the drivers, you know, it's
24 not the only driver. It's -- it's about having
25 adequate and redundant communications to get more

1 information back from our plants. That's being driven
2 by other upgrades that are going on. I mean, yes,
3 reliability's part of the picture, but I wouldn't say
4 it's the major driver.

5 A. MR. MOLLARD: Yes, it's as much an industry best
6 practice. When you're the primary generator in an
7 isolated grid, you need to have redundant systems; you
8 can't rely on anybody else. So that would be the
9 primary driver. We haven't done the analysis, as you
10 say, to link those upgrades to the outages, though.

11 Q. And so when looking at the study that was referred to,
12 was -- in that study, looking at the SCADA upgrades,
13 was there any analysis done to quantify the benefits?
14 I understand that the main driver is redundancy, but
15 the benefits to YEC and its customers resulting from an
16 enhanced reliability, that would result from the SCADA
17 upgrades?

18 A. MR. MOLLARD: We'll have to go back to the
19 report and check on that for you. If we can take that
20 as an undertaking.

21 Q. Thank you.

22 UNDERTAKING - TO ADVISE AS TO WHETHER,
23 ON THE SCADA UPGRADES, THERE WAS ANY
24 ANALYSIS DONE TO QUANTIFY THE BENEFITS

25 Q. MS. BENTIVEGNA: Now, is my understanding

1 correct that YEC's customers already experience lower
2 duration of outages than consumers in the rest of
3 Canada? Is that -- if you can confirm that.

4 **A. MR. HALL:** Yeah, that's correct. That's that
5 **SAIDI metric we were talking about yesterday.**

6 **Q.** And then in that case, does the fact that there's lower
7 than the national average of the Canadian average, is
8 there then a need to upgrade the system further, the
9 SCADA system further? Aside from redundancy, is there
10 a need to upgrade the SCADA system at this time, seeing
11 that the outages are lower than the national average?

12 **A. MR. HALL:** Mr. Chair, a couple of comments.
13 I mean, if you look at our outage data overall, we have
14 -- we track both, you know, transmission outages, so
15 trees that fall on a line and take a particular area of
16 the grid out, and those tend to be the majority of the
17 outages. You know, this communication upgrade, the
18 SCADA upgrade is really talking to our main hydro
19 plants. And so if you look at the -- our system, you
20 know, we only have three hydro plants, so if any --
21 depending on the time of year, if any one of them goes
22 down, including our Aishihik plant, which is our single
23 largest generation plant, those outages, if they
24 happen, so an outage to a main generator is an
25 extremely serious event. I mean our whole capacity,

1 planning criteria around N minus one is all about what
2 happens if the Aishihik plant goes down. And so the
3 idea of having redundance and secure -- you know,
4 reliable communications to the Aishihik plant is
5 paramount because it is our single largest generator.
6 You know, when you look at our composite outage data,
7 you're looking at a lot of transmission issues that
8 tend to dominate that -- that data.

9 Q. Thank you. Now, if you can turn to Exhibit B-1 with
10 the application, at PDF page 1-78, and it's the YEC
11 statement in Section 5.2.1.2 regarding the Aishihik
12 elevator shaft structural steel rehabilitation that is
13 -- the point of my question is that's a subject of my
14 question.

15 So if you -- what I'm looking at on PDF page 1-78
16 is the following statement: (as read)

17 "Following the addition in 2011 of a
18 second feeder cable in the Aishihik
19 elevator shaft, the Yukon Workers'
20 Compensation Health and Safety Board
21 required YEC to have an independent
22 engineer conduct a comprehensive
23 evaluation of the installation to
24 ensure the elevator meets all
25 applicable codes, Acts and regulations.

1 The engineering firm reviewed the
2 engineering structural frames and
3 support systems. In 2013 -- sorry;
4 they reviewed in 2013 and observed
5 degradation of the steel integrity.
6 The report recommended permanent
7 rehabilitation of the structure and a
8 list of conditions imposed on the use
9 of the elevator to provide reasonable
10 margin -- a reasonable margin of safety
11 until the work is completed."

12 Now, can you tell me what led to the Workers'
13 Compensation Health and Safety Board's ordering the
14 review of the installation?

15 **A. MR. MOLLARD:** Yes; it was related to that second
16 feeder cable installation 2011. We had workers in the
17 elevator shaft doing some maintenance, and it was at
18 the bottom of the shaft, they just recognized that
19 where the cables came along the floor and went up the
20 side of the shaft, they felt like the cables were
21 somewhat unprotected, so they put a shield on it, they
22 built a tin shield for it, and unfortunately when the
23 car came down, it contacted the -- that shield, so
24 there was a concern from a health and safety
25 perspective, so OH&S was contacted, and that was when

1 they became involved. So they were looking -- they
2 were called for that incident, but they took a more
3 broad look at the elevator and everything around it,
4 and that's what -- what led to this work.

5 Q. Thank you. So then when they built that shield, was
6 that -- was that the problem? Was it compliant with
7 the relevant codes and acts and regulations at that
8 time, or was that the problem that I understand you
9 said that led to the incident, but when it was built,
10 was -- was it reviewed or considered before building it
11 as to whether it met --

12 A. MR. MOLLARD: Yeah. I mean, it was -- it was --
13 it was an engineered design originally going back to
14 2011. This was a worker making a call on the ground
15 that they felt that there was a risk there so that they
16 put this cover on. I don't believe it was a specific
17 code compliance, but I'm not an expert in that area.
18 It was somebody who thought that there was a risk, and
19 they were trying to -- trying to mitigate that risk.

20 Q. And can you tell us -- and again, if you don't have the
21 numbers, you can undertake to provide them -- what
22 portion of the current project costs is -- was to
23 remedy that 2011 work and then -- you know, from the
24 rest of the -- the work that's been done?

25 A. MR. MOLLARD: Sorry, I just want to be -- can

1 you ask that question again? I want to make sure we're
2 not getting confused --

3 Q. Sure --

4 A. MR. MOLLARD: -- two projects.

5 Q. -- no, I was just wondering -- or not wondering -- I
6 wanted to know the -- what portion of the current
7 project costs were to address the 2011 work, that work
8 that, you know, caused the first incident --

9 A. MR. MOLLARD: Yeah, fair enough. Relatively
10 small amounts. So when they -- when they went in and
11 did the inspection of the whole elevator shaft, there
12 was concerns with, I recall, the way the cables were --
13 were fastened to the cable tray going up the shaft. So
14 they had to do some improvements on that.

15 But that was kind of it. The rest of it was then
16 on the steel itself. So the -- of the -- what is it,
17 10 or \$11 million project, I would say less than a half
18 of a -- half a million of that would have been in any
19 way related to that 2011 work.

20 Q. Now, did YEC conduct a review similar to the one;
21 ordered by the Health and Safety Board prior to
22 installing the connected feeder cable?

23 A. MR. MOLLARD: You mean like an engineering
24 study --

25 Q. Yes.

1 A. MR. MOLLARD: -- of that?

2 Q. Yes.

3 A. MR. MOLLARD: So the need for the -- the 2011
4 work, just to be clear, was related to the installation
5 of the third hydro unit in the plant. The -- the
6 second set of cables was a secondary objective.

7 Back in 2006, we had a very bad outage at Aishihik
8 on a very cold day in the year. People from here would
9 remember that. We were out for quite a bit of time,
10 and the engineers identified observed a weakness in our
11 system because we did not have redundancy to get power
12 from the turbine floor to the surface and then out to
13 customers. So they said you need a second set of
14 cables to provide backup for the first. So that was
15 the work that was -- that was that second set of cables
16 being added.

17 Q. And so then there was the 2011 work that --

18 A. MR. MOLLARD: Mm-hmm.

19 Q. -- you said, according to your memory, it was about a
20 half a million. Now, could the work have all been done
21 at the same time, the second feeder cable being added,
22 and would there have been any cost savings?

23 A. MR. MOLLARD: Could they have added the
24 second...

25 Q. Yes. Basically, planned the project together.

1 **A. MR. MOLLARD:** Well, it was done all at once.
2 They installed the third unit and they ran the second
3 settle of cables at the same time. Relative to the
4 work that we had to do to correct, this goes a bit to
5 the -- the other Aishihik file we have here with the
6 legal dispute. We did take exception to the way those
7 cables were installed with the contractor, and it was
8 part of our legal claims against that contractor.

9 Now, my understanding is the code is not always
10 that specific, but we have standards for our industry
11 that we expect, and we did not get those, and that's
12 why -- part of the reason why we went after the
13 contractor for quality issues on the installation.

14 **Q.** Thank you. Now, if you can turn to -- again, I'm in
15 Exhibit B-1, the application, PDF page 2-21. It's
16 Section 5.3.2. And on that PDF page 2-21, YEC states
17 that it's undertaken a feasibility study for
18 time-of-use rates structure and smart grid. However,
19 in its opening statement, YEC also notes that the Yukon
20 system has considerable seasonable variability in
21 hydrogeneration supplies. And I'm wondering if, in
22 addition or other than the time-of-use rate structure
23 and smart grid, if YEC has given any consideration to a
24 seasonal rate structure.

25 **A. MR. HALL:** We haven't at this time given

1 **consideration to a seasonal rate structure, no.**

2 Q. Would there be any advantage or benefit from such a
3 rate structure if one were to be studied or put in
4 place?

5 A. **MR. SRECKOVIC:** Mr. Chair, we -- we just
6 commissioned a consultant, an experienced consultant
7 who proposed different rate structures, and to the best
8 of my knowledge, the consultants proposed six different
9 rate structures, and we still have a chance to discuss
10 seasonal rate structures. So it is -- the decision
11 hasn't been made finally, and there is a possibility
12 that part of the study will be seasonal rate structure
13 too.

14 Q. And, Mr. Sreckovic, what type of rate structures? You
15 said six, so I'm interested in if you could tell us
16 what they might be looking at.

17 A. **MR. SRECKOVIC:** Mr. Chair, at this point in time,
18 I cannot discuss in -- in detail what -- what those
19 rate structures would be. I simply had a chance to
20 find out about that a couple of days ago, so I -- I'm
21 really not into details. And consultant will certainly
22 propose details of different rate structures.

23 Q. And what -- I know it's at the early stages, but for
24 such a study, what type of costs would you be looking
25 at? A ballpark. I'm not asking for an exact figure.

1 **A. MR. SRECKOVIC:** Will you please rephrase the
2 question a bit? I'm wondering if your question was
3 related to the cost of the study or the cost of the
4 outcome of the study.

5 **Q.** No, the cost of the study itself at this point.

6 **A. MR. SRECKOVIC:** The allocated budget is \$200,000,
7 Mr. Chair. \$100,000 will be contributed by Yukon
8 Energy, and the remaining \$100,000 will be contributed
9 by ATCO.

10 **Q.** Thank you. Now, again, at Exhibit B-1, the application
11 PDF page 2-05, and that's Section 5.3.1.3, and then as
12 well if you could turn up Exhibit B-6, it's the
13 responses to YCS-YEC-1-13(a) at PDF page 35, and it's
14 regarding the battery project.

15 **A. MR. MOLLARD:** YCS-13 is about the thermal plant.

16 **Q.** It's related, yes, to the LNG.

17 **A. MR. MOLLARD:** Okay.

18 **Q.** So in Section 5.3 of the application, YEC forecasts
19 work in progress of more than 8 million by the end of
20 2018 for its battery energy storage system to address
21 the current capacity shortfall by 2020. And then I'll
22 get to the YCS portion of the question. So does YEC
23 intend to charge the battery storage system using only
24 hydrogeneration if it were to put into place?

25 **A. MR. HALL:** No, you mean -- overall, I can't

1 say it will only be hydrogeneration. Probably be both.

2 Q. Then my question to you is if you're going to be using
3 some thermal generation to charge the batteries storage
4 system and it's intended -- the balance storage system,
5 from my understanding, is intended to reduce reliance
6 on thermal generation, how do you square the two, the
7 use of the thermal generation yet you're trying to
8 reduce thermal generation through the battery project?

9 A. MR. HALL: Mr. Chair, the primary objective
10 of the battery project is to -- is a solution to meet
11 peak load. I mean, that's its primary objective. I
12 mean, whether it reduces thermal generation or not is
13 -- is a separate issue, but in terms of the planning
14 process through the resource plan that arrived at
15 selecting a battery, the goal overall was to a
16 cost-effective solution in a timely manner to address
17 peak load.

18 A. MR. MOLLARD: And I think it's worth mentioning
19 that there is still, even within the thermal portfolio,
20 if we used an LNG engine to charge the batteries,
21 they're still an advantage over diesel. So to the
22 extent that you've charged your battery at LNG and used
23 it for the peak, you're displacing a diesel that has a
24 higher cost.

25 Q. All right. Then yesterday Mr. Sreckovic explained that

1 -- or the day before -- that there had been an
2 application to the federal government for funding of
3 the battery project, and I was wondering if you could
4 provide more detail on what the application -- what
5 your funding application, more description of the
6 project and more details of what your funding
7 application contains for this project.

8 **A. MR. SRECKOVIC:** Mr. Chair, Yukon Energy submitted
9 an application to Enercan for battery funding, and we
10 went through the initial screening process, and we're
11 in the next step of the -- of the process. And in
12 essence, the Enercan would provide funding for the
13 entire project or -- or parts of the project. And we
14 simply presented our business case and the reason for
15 the battery, and the reason is to fill the capacity gap
16 and, by doing so, postpone the introduction of thermal
17 resources needed to fill the capacity gap.

18 **Q.** Thank you, Mr. Sreckovic, but can you give us more
19 details about the battery project that's being
20 proposed? So we assume that in your application, you
21 had to provide a proposal, so if you can just give me
22 more details about what your actual proposal was.

23 **A. MR. SRECKOVIC:** Mr. Chair, the actual proposal was
24 to provide funding for battery of 4 megawatts of
25 capacity and 40 gigawatt hours of energy storage. And

1 Andrew, if you could --

2 A. MR. HALL: Megawatts, not gigawatts.

3 A. MR. SRECKOVIC: Yes, megawatts, thank you, I
4 appreciate. So 4 megawatts of capacity and 4
5 [verbatim] megawatt hours of energy storage, which
6 would allow the battery to run for about ten -- ten
7 hours. And in essence, those are technical details
8 about the battery, and if we -- if we -- if we were
9 approved for the funding, then we would commission a
10 consultant to provide us with the engineering for the
11 battery and decide on the location and -- and the
12 construction methodologies.

13 Q. So basically inputting in your project, you just
14 provided details and a justification, rather than
15 location or any specifics. Am I to understand that
16 correctly?

17 A. MR. SRECKOVIC: Yes, the -- the requirements of
18 the application were very high level, Mr. Chair, and we
19 provided what Enercan asked us to do.

20 Q. And so then the justification for the project or the
21 goal that you provided was for this additional
22 capacity, a redundancy in capacity; is that -- do I
23 understand that correctly?

24 A. MR. SRECKOVIC: Mr. Chair, I would -- I would like
25 to go back to our 2016 resource plan. The 2016

1 resource plan identified a gap in capacity, an
2 immediate gap in capacity. And since we analyzed all
3 the option to close that capacity gap, battery was one
4 of the options, and battery came to the top of the list
5 because the implementation time was -- was short, and
6 -- and the battery would be needed to -- to close the
7 existing capacity gap between load and -- and current
8 system capabilities. And that's why we -- we applied
9 for the -- we applied for the funding, and that was a
10 part of the application.

11 Q. Thank you.

12 Now, with regards to the response, the
13 YCS-YEC-1-13(a), YEC states, and it goes back to the
14 resource plan: (as read)

15 "Since completing the 2016 resource
16 plan, YEC was made aware of the
17 potential development of an LNG depot
18 near Whitehorse. The availability of a
19 local LNG storage would enable the
20 removal of the storage and processing
21 facilities from the scope of a
22 greenfield thermal plant.

23 Consequently, it would make a new
24 natural gas-fired generating plant
25 financially more attractive and bring

1 its levelized cost capacity close to
2 that of a greenfield diesel plant. And
3 part of the planned activities for 2017
4 and 2018 will assess the impact of
5 removing the LNG storage and processing
6 equipment from the scope of the plant
7 and its impact on the business case."

8 Now, in YEC's view, is it reasonable to assume that a
9 natural gas company will want to make use of this
10 potential LNG depot to create a distribution system to
11 deliver natural gas to customers in Whitehorse?

12 **A. MR. HALL:** Mr. Chair, I think at this point,
13 we can't really comment on what their -- their goals
14 might be, other than distribution of LNG to customers
15 by -- by truck; we're aware of that. So the objective
16 of the depot would be a breakpoint in the supply chain.
17 So in supply chains for hydro carbon fuels and liquid
18 fuels, it's typical to have a breakpoint. Having a
19 very long supply chain of thousands of kilometres is
20 quite unusual, and so the rationale would be a
21 breakpoint which will allow the supplier to -- to try
22 and ship into different sizes of trucks and ship into
23 either northern parts of -- further north or, you know,
24 possibly into Alaska. We can't really speak to whether
25 they'd be looking at any kind of local distribution;

1 that's not our business.

2 A. MR. MOLLARD: They have told us that they are
3 talking to those customers in Alaska and parts further
4 north, so that's their primary -- their business case
5 is wrapped around that.

6 A. MR. OSLER: There is a supply chain right now
7 that goes through Yukon going up to Inuvik. In fact,
8 it's one of the things that we were aware of when we
9 looked at LNG for Whitehorse. So the thought process
10 for the people talking this way are hoping that the
11 supply requirements in Inuvik and potentially
12 thereafter in Alaska get to the point where a depot
13 would make sense in Whitehorse because of the long -- a
14 long chain of road that's being hauled from across the
15 border in Alberta near Elmworth all the way up to
16 Inuvik right now, as a sort of regular supply chain.

17 Q. And what's -- well, what's the likelihood of such a
18 project coming to fruition? Because I remember from
19 the Part Three proceeding, the LNG about the potential
20 for these trucks --

21 A. MR. MOLLARD: Mm-hmm.

22 Q. -- that were going to be developed specifically, and as
23 far as I understand, they have not. So I'm just
24 wondering what the likelihood from your point of view
25 is of such a project?

1 A. MR. MOLLARD: Yeah, I would agree with that
2 statement. The supply chain has not developed as
3 quickly as we had originally forecast, but it has
4 developed. We have -- AltaGas has developed a facility
5 in, I believe, Dawson Creek just in the last 12 months,
6 we know our supplier in Elmworth and Grande Prairie is
7 expanding and is planning to buy bigger trucks and does
8 have the design for that King B trailer that we
9 developed, and they will use it when their loads
10 warrant it.

11 So I would say we do see progression in the supply
12 chain. It is moving north. They're increasing their
13 capacities and volumes all the time. It's not
14 happening as quickly as we would like it, but, you
15 know, the -- the -- the company that's proposing this
16 depot is a serious player in the business, and we feel
17 pretty good that if anybody can do it, they can. It's
18 going to depend on the market. You know, they have to
19 have a certain volume of customers signed up before
20 they're going to commit to this, so anything can
21 happen. But they actively are pursuing it.

22 A. MR. OSLER: I think the -- some things are
23 certain, and some things require evolution. The King B
24 has gotten to the stage where people have gone through
25 a lot of permitting issues, but they need to have the

1 market for the people that would run it to have a
2 pretty good volume going back and forth to the right
3 places for it. A depot might be a useful place for it
4 to go back and forth from a LNG plant, for example. It
5 would probably be harder to take it all the way up to
6 Inuvik, a King B.

7 The Elmworth expansion isn't a hundred percent
8 certain in the sense that they haven't actually gone
9 the next step, but they bought all the equipment a few
10 years ago, and they have all the permits, and they tell
11 us that we should be able to say you that they're going
12 forward and be operational in Q1 of next year, and with
13 that will come an expansion of the truck fleet.

14 There certainly are lots of discussions going on
15 in Inuvik about expanding the supply chain requirements
16 up there to displace propane as well as the power use.

17 That's where the uncertainty, in my opinion, lies
18 as to the timing for a depot. There has to be enough
19 volume going through here for them to take that extra
20 step for the depot, but they are certainly seriously
21 pursuing at a high-priority level from the Elmworth
22 facility this market. It's not a trivial market to
23 them. It's a central -- a lot of effort and energy's
24 being put into this.

25 So that's about as good an update as I can give

1 you on that.

2 Q. All right. Well, thank you for the update. And what
3 is -- if you just in a brief statement -- what is the
4 benefit that YEC would gain from this expansion, from
5 this longer supply chain, from -- so I'm just trying to
6 relate it back. If you're spending money on this type
7 of project or considering these type of changes, what's
8 the benefit to YEC?

9 A. MR. HALL: The -- I think as we outlined in
10 the -- in the application and in this IR response,
11 the -- what this supply depot does is provides a point
12 where we could get over-the-fence gas supply. So it --
13 the assets that we would build in that case would just
14 be the LNG-fueled engines, and actually gas, they take
15 in gas, the controls, etcetera. We wouldn't have to
16 build storage, we wouldn't have to build vapourization.
17 So the benefit that a depot brings is reduce our net
18 capital expenditure for a -- for a natural gas-fueled
19 generating plant. And as we outlined in -- it was
20 reviewed earlier, it brings that capex down to the
21 point that it might be equivalent to a greenfield
22 diesel plant, for example.

23 A. MR. MOLLARD: Generally, the engine's --
24 reciprocating engines, whether natural gas or diesel
25 themselves -- are roughly equivalent capital cost. We

1 know LNG has a cheaper variable cost, so if you take
2 the storage out of the mix, it's a very clear -- pretty
3 clear benefit for ratepayers in that case.

4 Q. All right.

5 A. MR. HALL: I think the other point I'd make
6 in general -- and we talked about this yesterday -- is
7 at that juncture, this is just one of three options
8 that we're looking at. So we know that we -- we need
9 more capacity, we know that thermal, generally -- be it
10 LNG or diesel -- is the cheapest way to get that
11 capacity.

12 So -- a new thermal plant of some description is a
13 key part of the plan, and the options that we're
14 looking at are threefold. So it's what we're talking
15 about here, this gas-fueled plant that would be
16 co-located with a -- with a depot. It's a greenfield
17 diesel plant, and then a dual fuel retrofit, so dual
18 fuel engines placed into our existing diesel plant here
19 in Whitehorse. And at this stage, you know, those
20 three are still very viable options. Each have their
21 own features, and, you know, we would still be
22 evaluating them on an equivalent basis.

23 Q. Thank you.

24 THE CHAIR: Ms. Bentivegna, are we changing to
25 another topic now? Would now be a good time for a

1 morning break?

2 MS. BENTIVEGNA: Sorry. Yes, Mr. Chair. Nodding
3 doesn't go on the record.

4 THE CHAIR: Thank you. We'll take a 15-minute
5 break now, be back at 11. Thank you.

6 (ADJOURNMENT)

7 THE CHAIR: Be seated, please.

8 So before we begin, I see Mr. Landry. Before
9 that, at lunchtime today, the Board is -- is thinking
10 about, unless there's some objection -- of having a
11 45-minute lunch instead of a 90-minute lunch, to see
12 how we can deal with getting through the material
13 today. And unless that's a problem for anybody -- you
14 can let us know at the break if it's going to be, but
15 otherwise, that's what we're going to plan on. We'll
16 find a good time to start that.

17 And now Mr. Landry.

18 MR. LANDRY: Sir, Mr. Mollard just wanted to
19 clarify something on the record, so I'll put it over to
20 him.

21 THE CHAIR: Okay.

22 A. MR. MOLLARD: Yeah, just with respect to the
23 questions around the northern diesel study, I just
24 thought I'd clarify on the actual installed generation
25 in the north. So Mayo has two diesel units,

1 850 kilowatts each, 1989 in service; Dawson has five
2 diesel units for a total of 5 megawatts in that -- in
3 that facility; and the vintages range from 1987 to
4 1996.

5 THE CHAIR: Thank you.

6 Any other material, Mr. Landry?

7 MR. LANDRY: No. Sorry, sorry, no, that's it.

8 THE CHAIR: Okay. Ms. Bentivegna.

9 Q. MS. BENTIVEGNA: Thank you, Mr. Chair.

10 Mr. Hall, just to go back a little bit, when we
11 were talking about the redundant data centre, you
12 mentioned that it was part of the -- or the main driver
13 was your disaster recovery plan. Now, what is in place
14 right now? For example, if YEC did not get approval to
15 build the redundant data centre at Takhini at the
16 substation, what's in place right now? How would you
17 deal if there was a disaster to recover data and that?
18 Mr. Mollard talked about what had happened in the fire
19 of '97, I think. So if you can -- if you can please
20 comment on what you have now or tell us what you have
21 now.

22 A. MR. HALL: Sure. I think you have to think
23 about the worst case. So the objective of having -- I
24 mean, it's self-evident in the words -- but having a
25 redundant data centre covers off a worst case where

1 your data centre in Whitehorse is destroyed or
2 incapacitated, right?

3 And so what we would do now is you'd essentially
4 go back to a very manual system where you -- you run --
5 we'd have to send staff out into the field to run
6 plants manually, which is possible, but the problem is
7 that we don't have enough staff to do on a sustained
8 basis. We could do it for a few days, but, you know,
9 we're running fairly lean in terms of operations staff,
10 and so you'd reach a point where you'd just exhaust
11 your staff. And so, you know, we could do it short
12 term, but you can appreciate that if we're facing an
13 event where our Whitehorse facility was destroyed,
14 that's a very long-term situation, you know. It's not
15 something you can fix in days or weeks. So, you know,
16 we'd be okay for a few days, but long term, you start
17 running into quite a problem with -- with just operator
18 fatigue and not having staff to run -- run facilities.

19 A. MR. MOLLARD: It would also affect the speed of
20 recovery, I'm thinking more on the IT, as opposed to
21 the OT side. We have off-site backups of all our key
22 systems and data so that if there was an event where we
23 couldn't get in, we could go to another site and set
24 up, but then you'd have to get hardware, set it up,
25 plug in all your -- pull all your backups and load them

1 up and test them and make sure they're functioning.

2 The idea with the data centre is that you walk in,
3 turn it on, and you're live and ready to go almost
4 immediately.

5 Q. So then you do have now, anyways, a system of backups
6 that are not at the, for example, at the Whitehorse --

7 A. MR. MOLLARD: Yes.

8 Q. -- station or --

9 A. MR. MOLLARD: Yeah.

10 Q. -- Whitehorse plant.

11 A. MR. MOLLARD: At the generating station, yes,
12 correct.

13 Q. Thank you. Now, if you can turn to the application
14 again, PDF page 1-81. It's Section 5.2.1.3, and then,
15 as well, Appendix 5.4, which is at PDF 249. And
16 it's -- the subject is the remote terminal unit
17 replacement. So at page, PDF page 81 with respect to
18 the Aishihik RTU replacement, YEC states: (as read)

19 "The RTU that serves the AH(1) and AH(2)
20 control system was installed in 1975 and
21 lacks the features and functionality of
22 newer systems."

23 Now, is that date correct, the 19 -- 1975 date? Were
24 they in place? Were they not in place in the 1990s as
25 part of the SCADA project? So I'm just wondering when

1 the infrastructure at Aishihik, what I've referred to,
2 was put in place or if it was -- been placed since 1975.
3 We're just not sure that that --

4 **A. MR. MOLLARD:** So just to be clear --

5 **Q.** Yeah.

6 **A. MR. MOLLARD:** -- because you had two references
7 there, so S150 is in Whitehorse here at this site, and
8 the Aishihik terminal, of course, is at our Aishihik
9 facility.

10 **Q.** Yes, the PDF page is 2-49 for the Whitehorse --

11 **A. MR. MOLLARD:** Yes.

12 **Q.** -- and the Aishihik is --

13 **A. MR. MOLLARD:** Yes.

14 **Q.** -- 181.

15 **A. MR. MOLLARD:** So, yes, the -- the RTUs at
16 Aishihik were installed in 1975. That was the original
17 commissioning date for that plant.

18 **Q.** And were they -- have they been updated in the '90s
19 when the SCADA project --

20 **A. MR. MOLLARD:** No, I don't believe so. The SCADA
21 project was -- was centered in Whitehorse.

22 **Q.** Sorry, Mr. Mollard, I wasn't sure whether you'd
23 finished or --

24 **A. MR. MOLLARD:** Oh, sorry, yes, that was my full
25 response.

1 Q. Can you please verify that that date is correct, the
2 1975, and that there's been no replacement of those
3 RTUs at Aishihik?

4 A. MR. MOLLARD: Yes.

5 UNDERTAKING - TO VERIFY THE RTUS AT
6 AISHIHIK WERE INSTALLED IN 1975 AND
7 THAT THERE HAS BEEN NO REPLACEMENT OF
8 THOSE RTUS AT AISHIHIK

9 Q. MS. BENTIVEGNA: Thank you. And then with regards
10 to the Whitehorse main RTU replacement, YEC states
11 that: (as read)

12 "The current remote terminal unit is an
13 older model that cannot take advantage
14 of the upgraded annunciator PLCs and is
15 suffering from ongoing support issues."

16 Now, what is -- or how many of these same type or
17 similar model RTUs are there in the YEC system?

18 A. MR. MOLLARD: I'm afraid I don't have that
19 answer with me.

20 Q. Okay. Would you mind checking and letting us know?

21 A. MR. MOLLARD: Okay. And just to be clear, it's
22 the RTUs of a similar vintage to what's in Whitehorse.

23 Q. Yes. And then once you know sort of what -- if there's
24 similar ones or the same, if you could let us know what
25 the timeline for replacement is --

1 A. MR. MOLLARD: Yes.

2 Q. -- of those units.

3 A. MR. MOLLARD: Yes, we can do that.

4 UNDERTAKING - TO ADVISE HOW MANY OF THE
5 RTUS ARE OF A SIMILAR VINTAGE TO WHAT'S
6 IN WHITEHORSE IN THE YEC SYSTEM AND
7 WHAT THE TIMELINE FOR REPLACEMENT IS

8 Q. MS. BENTIVEGNA: And now there's also a reference
9 about major and minor concerns with the Whitehorse
10 RTUs. Now, has this been a concern since the RTUs were
11 first installed or not?

12 A. MR. MOLLARD: I -- well, the issue would have
13 existed all along. I'm not RTU expert, but this is --
14 this is essentially a business improvement. Old
15 technology didn't have the ability to differentiate
16 alarms more specifically than either giving you two red
17 lights or one red light, so it's just a technological
18 advancement that we've had. I think, you know, going
19 back to the '90s when this one was probably installed,
20 I'm speculating it was less of an issue at that time
21 when the system wasn't as heavily loaded as it is
22 today.

23 Q. So did I understand you correctly that the reason for
24 the need for replacement is for upgrading and so that
25 the alarms would be different? Right now you said

1 there were lights and that, so how's -- if you weren't
2 able to replacement within these test years, is that an
3 issue?

4 **A. MR. MOLLARD:** So, yeah, so let's -- so be clear,
5 the two reasons that this thing's being replaced, the
6 existing unit is end of life, we're having issues with
7 support, we can't keep it running, so if we're going to
8 replace it, we're going to try and take advantage of
9 new technology to give us, again, better intelligence
10 coming back to the control operator so that if he gets
11 an alarm, he has better -- he has better knowledge of
12 what's happened on his system, and he can react
13 appropriately, as opposed to just having an alarm, if
14 that makes sense.

15 **Q.** It does. So what -- I guess maybe if you can just
16 elaborate a little bit on what type of information
17 would it be getting that it's not -- that the control
18 centre or the operator would be getting that it's not
19 getting now with the lights?

20 **A. MR. MOLLARD:** Yeah, so it's I guess it's a level
21 of specificity. Under the current one, all he's going
22 to get is an alarm; the RTU's going to say, You have an
23 issue in the substation. The new RTU is going to say,
24 You have an issue in the substation at this breaker, or
25 at this fuse, or it'll just give you better

1 intelligence about where the fault is within the fence,
2 as opposed to just, You've got a problem in the
3 substation, if that's helpful. That's about as much
4 specificity as I can go into on that one.

5 Q. All right. Thank you. Now, again, in your application
6 Section 5.3.1.8, PDF page 2-18. And it's to do with
7 the Marsh Lake storage project.

8 Now, as the panel testified earlier in response to
9 questions from, I believe, Mr. Rondeau, or it could
10 have been Mr. -- sorry, I just have a blank -- our
11 other intervener -- Maissan.

12 Thank you, Mr. Maissan.

13 That in Order 2013-01, the Board found that the
14 Marsh Lake storage project is currently a viable
15 project. Now, in Section 5.3.1.8 of the application,
16 that's that PDF page 2-18, YEC states that: (as read)

17 "Without obtaining First Nations
18 support, the project will be
19 cancelled."

20 Now -- and it was Mr. Rondeau's questions. You stated
21 during that -- those questions that YEC works to
22 determine the viability of the projects like the Marsh
23 Lake storage project. Now, what cost-benefit analysis
24 has YEC done to understand how often -- sorry, to
25 understand whether it's useful to continue such a

1 project or not and how viable a project remains such as
2 the Marsh Lake?

3 A. MR. HALL: Certainly. Mr. Chair, I'll try
4 and answer this question in a couple of different
5 pieces. Firstly, we -- as was outlined yesterday, we
6 do follow what's known as a stage gate approach to
7 assessing and progressing these projects to the point
8 where we would make a decision whether to either submit
9 for regulatory approval through YESAB, the Water Board,
10 and then ultimately this tribunal, or indeed to stop.
11 And as part of that stage gate process, we look at a
12 number of different factors. You know, we evaluate the
13 peer project economics, and so that looks at a number
14 of different metrics, but basically it boils down to,
15 in this case, it's an energy supply project overall, so
16 we would look at the levelized cost of energy, for
17 example, is a key financial metric, which considers
18 both the upfront capital investment in the project and
19 then also the resulting increase in energy, and it
20 quantifies that. And so those economics were presented
21 as part of the resource plan, for example. It's --
22 it's presented there, the LCOE of the project.

23 In addition, we also look at, you know, other risk
24 factors that may come to bear and affect the
25 probability of receiving approval through the various

1 regulators that we have to take the project through.
2 And so that's where factors related to First Nation
3 acceptance or, indeed, public acceptance would come to
4 bear.

5 So for example, in the case of the Marsh project,
6 the project does -- would impinge on First Nations
7 settlement land, so the Carcross Tagish First Nation
8 has settlement land that's currently inundated at
9 certain parts of the year, but that inundation or
10 flooding would increase if this project was
11 implemented, and so the fact that they're a decision
12 body in the YESAB process makes their support a
13 critical component of our evaluation of risk. You
14 know, I think some of the other risks we would identify
15 and consider would be post-implementation risk. So in
16 a project like this, we have to think about what
17 happens after the project is implemented and what could
18 go wrong that would either lead to, you know, increased
19 cost or increased, you know, issues with public
20 acceptance, let's say. And in this particular project,
21 there are significant post-implementation risks that we
22 have to consider. And so this is part of the -- the --
23 what makes decision-making on this project particularly
24 important, and we need to take our time to make the
25 right decision going forward.

1 The other types of factors we would consider would
2 be duration of the project because, you know, we have
3 an overall framework of water licenses with the Water
4 Board, and so, you know, where we stand today, we
5 have -- our current water license expires in 2024. And
6 so we have to consider, you know, what does that
7 relicensing process represent in terms of uncertainty
8 in the project information -- implementation going
9 forward. So, you know, I hope I've outlined both a
10 financial approach to considering cost benefit, but
11 also looking at some nonfinancial factors.

12 Q. And how often would you carry out the exercise of
13 relooking at whether -- unless --

14 A. MR. HALL: Sure.

15 Q. -- understanding that, yes, if you didn't get or didn't
16 work out an agreement --

17 A. MR. HALL: Yeah.

18 Q. -- with the First Nation, then that would not -- that
19 would be the end of the project. But other than that,
20 how often do you look -- does YEC look at --

21 A. MR. HALL: The --

22 Q. -- this project?

23 A. MR. HALL: Excuse me. The stage gate process
24 that we follow outlines decision points, and those are
25 typically completed when you've completed major

1 packages of work, and often it's viewed in terms of
2 stages of engineering, so once you've done preliminary
3 engineering, then basic engineering, etcetera. But in
4 this case, you obviously have to layer in the -- the
5 nonfinancial work you're doing, so the environmental
6 assessment, your First Nation consultation, your public
7 consultation. And so when you finish those major
8 chunks of work, you'll bring it together and present,
9 in our case, to our board of directors for review.

10 If I think broadly about what's happened over the
11 last -- since we were last before this Board, the major
12 pieces of work that we've completed have been, A, to
13 work on finishing the environmental work, so the
14 effects assessment. So that would include baseline
15 studies, looking at various indicator species, fish,
16 birds, etcetera. And then, obviously, your engineering
17 work, which in this case related mostly to consulting
18 with residents around the lake to design mitigation, so
19 erosion control solutions. I think I spoke about that
20 yesterday. And then, you know, your First Nation
21 consultation piece.

22 And so since 2013, we've spent many in those three
23 areas, and in particular on the First Nation file,
24 re-engaging with Carcross-Tagish First Nation. You
25 know, one of the realities in dealing with First

1 Nations is there are changes in chiefs and council
2 periodically, and sometimes that can force you back,
3 you know, into the process to deal with a new chief and
4 a new council. And that was certainly the case in here
5 where we had to go back and repeat a bunch of work
6 because we did have a new chief going back to, you
7 know, subsequent to 2013.

8 So I think what's clear for us right now at this
9 juncture is we do need to bring the project back to our
10 board this year to make a decision, and part of that
11 relates to, you know, bringing -- bringing all of that
12 together, all of those pieces, and reassessing where we
13 are, where public, First Nation, and government support
14 might be for the project.

15 Q. And what's YEC's understanding at this point of the
16 First Nations' concerns or support for the project?

17 A. MR. HALL: We -- we did -- we have done a lot
18 of work over the last three, four years with -- with
19 the Carcross-Tagish First Nation. We have -- we did
20 receive conditional support from them to proceed to
21 YESAB, but the piece that has not been negotiated would
22 be any benefits agreement associated with the project.
23 So that is -- that has not been completed at this time.

24 Q. So then if you had to today basically look at the
25 likelihood or how soon you would get an agreement with

1 the First Nations, would you have a view on that?

2 A. MR. HALL: Mr. Chair, I think -- I think that
3 if we had to look at the key decision factors at this
4 time, I don't think the First Nation is really on the
5 critical path. I think it's more just an internal
6 decision between ourselves, our board, and our
7 shareholder. I think the First Nation piece is
8 manageable. I don't see -- if we needed to get a
9 benefits agreement, I don't see that as a significant
10 critical path item.

11 Q. All right. Thank you. Now, as well, just talking
12 about progress of this project, so has -- and I wasn't
13 clear. Has the YESAB assessment phase of the Stage 3
14 review that was planned for the fourth quarter of 2017,
15 has it happened?

16 A. MR. HALL: We haven't submitted to YESAB yet,
17 no.

18 Q. All right. And so at that stage, what -- if you
19 were -- what would be the outcome? So the Board would
20 then give you the go-ahead from its point of view with
21 the environmental aspects of it, or what would be the
22 outcome, or is there another level, as well, that would
23 come after?

24 A. MR. HALL: You mean the YESAB Board?

25 Q. Are different, yes.

1 **A. MR. HALL:** Yeah, they provide a
2 recommendation to the decision bodies on -- on the
3 project. And then -- and then we would proceed to the
4 Water Board to amend the water license.

5 **Q.** Okay. And I think -- I believe you said there was also
6 a first -- I don't know if you said it was a First
7 Nations board or that...

8 **A. MR. HALL:** Well, one of the First Nations is
9 a decision body, so they ultimately would have to agree
10 with the recommendation from YESAB.

11 **Q.** And at what point is that --

12 **A. MR. HALL:** That's --

13 **Q.** -- approval sought?

14 **A. MR. HALL:** -- after the YESAB hearing.

15 **Q.** All right. Thank you. Now I'm moving from capital
16 projects to depreciation. So if you -- I'm going to
17 refer to Exhibit B-1, again, the application Section
18 3-3, which is operation and maintenance to start.

19 Now -- and also Board Order 2013-01, the
20 Appendix A. It was paragraph 84. That's PDF page 21.
21 And, I mean, I don't think you need to turn it up
22 unless you want to follow along with me. But the -- I
23 mean, the order.

24 But the Board in paragraph -- the Yukon Utilities
25 Board, since we've been talking about the other

1 board -- at paragraph 84 states: (as read)
2 "Based on the evidence on the record,
3 the Board is satisfied that YEC's
4 forecast FTEs complement with two
5 provisos. The first with, the exception
6 of positions related to demand side
7 management and the ECD, which is
8 discussed below, the Board approves
9 YEC's FTEs complement for the 2012/2013
10 test years."

11 Now, the record is that YEC is to demonstrate that
12 it's -- at its next GRA that the complement, the
13 complement levels approved in the -- in this GRA will
14 have effectively reduced the costs or use of outside
15 consultants.

16 So my first question to you is if you can explain
17 or confirm that YEC in its 2017/2018 GRA has basically
18 complied with this direction. So if you can point me
19 to, are there places in the application which show how
20 YEC has complied with the Board direction?

21 **A. MR. MOLLARD:** It's sort of a yes and a no.

22 **Q.** Okay.

23 **A. MR. MOLLARD:** The yes part, so the DSM costs are
24 all -- are all deferred, as we were directed to do so,
25 and I think tab 5 covers off that explanation of the

1 DSM-related charges. We have not to date, Mr. Chair,
2 filed evidence in support of the reduction of outside
3 consultants' costs. That being said, we did come to
4 that realization relatively recently, and we have
5 actually prepared an analysis of internal positions
6 that are doing work that otherwise would be done by
7 outside consultants. I'd be happy to file that as an
8 undertaking.

9 Q. That -- that would be very, very useful. So if I
10 understood you correctly, then, there's nothing in the
11 application that shows how YEC reduced complement -- or
12 that its complement, its current FTE complement reduced
13 consultant costs.

14 A. MR. MOLLARD: That's correct. And so what I'm
15 proposing to put on the record is a listing of existing
16 positions in YEC functions that they currently serve
17 that would otherwise be done by outside consultants,
18 and then the labour charges related to that. So that's
19 what I'll put on the record.

20 Q. All right. Thank you.

21 UNDERTAKING - TO PROVIDE A LISTING OF
22 EXISTING POSITIONS IN YEC FUNCTIONS
23 THAT THEY CURRENTLY SERVE THAT WOULD
24 OTHERWISE BE DONE BY OUTSIDE
25 CONSULTANTS, AND THEN THE LABOUR

CHARGES RELATED TO THAT

Q. MS. BENTIVEGNA: Now, if you want to turn to YUB -- YEC's response to YUB-1-11, and it's the administrative costs, labour category, and then Table 3.4 of the application, Exhibit 1, which is on page 3-7, PDF page 55. So -- and I'm looking at Table 3.4, which indicates the historical and forecast YEC employee complement. Now, when you look at Table -- or when I look at Table 3.4, I'm looking specifically at the columns at the end, the Forecast 2017 and Forecast 2018 columns, and the total employee complement numbers are identical for both years which is 97.370, but if we turn now to Exhibit B-5, which is the YUB-YEC IR 1-11, and PDF page 34, and it's parts (a) and (b) of that response, YEC indicates that: (as read)

"The receptionist position valued at \$50,000 for the year 2018 was eliminated."

So you'll see that in Table 2. Now, my question is if you can explain how come the receptionist's position was eliminated and -- but Table 3.4 still has the same total employee complement? So do you see where I'm pointing to or --

A. MR. MOLLARD: Yeah.

Q. If you need more explanation, I'd be happy to provide

1 it.

2 **A. MR. MOLLARD:** No, that's fine, I think we've got
3 it, I'm just working through all the pieces here; if I
4 could have a minute.

5 Just to be clear, Ms. Bentivegna, is the -- you're
6 looking for why there wasn't a change between '17 and
7 '18 or --

8 **Q.** Yes.

9 **A. MR. MOLLARD:** '16 and -- '17 and '18.

10 **Q.** Yes.

11 **A. MR. MOLLARD:** We think we have an error in the
12 note. The one position decrease from the receptionist
13 happened in 2017, not 2018. Not sure if that fully
14 explains it, but that -- we do note that error.

15 **Q.** So then shouldn't the complement, the total numbers be
16 different?

17 **A. MR. MOLLARD:** But we went up one position in
18 operations for a mechanic.

19 **Q.** All right. Now -- but if I look at Table 2, the labour
20 costs increased from '16 to '17, and so I assume that
21 that was because of the additional FTE. So I'm not
22 sure. Like, if you look at Labour at the top --

23 **A. MR. MOLLARD:** Sorry --

24 **Q.** -- it's got 2017 5961, and then it's got 5911.

25 **A. MR. MOLLARD:** Sorry, which table are you

1 **referring to, Ms. Bentivegna?**

2 Q. So if you look at Table 1 again, it's not -- sorry, if
3 you look at Table 1, which is on PDF -- I didn't have
4 it in my notes, but it's on PDF page 34, you'll see
5 that the actuals for labour, under Labour, actuals were
6 5783, and then in 2017, it goes to 5961, and the
7 increase in -- was the forecast wage rate, additional
8 IT costs.

9 A. **MR. MOLLARD:** Mm-hmm.

10 Q. So now I'm confused as to which position was added and
11 was the receptionist's position eliminated? So maybe
12 if you can clarify.

13 A. **MR. MOLLARD:** Yeah. So just could be clear, so
14 when you're looking at Table 1, that's a change between
15 '16 and '17.

16 Q. Yes.

17 A. **MR. MOLLARD:** So in both of those years, the
18 receptionist position existed, so it wouldn't be a
19 variance between those two years.

20 Q. Okay. But then for '18, what happens?

21 A. **MR. MOLLARD:** With respect to the costs?

22 Q. Yes. I mean, well, the -- the numbers and the costs.
23 So you've eliminated now, for '18 you said, the -- the
24 receptionist's position, but however when I look at
25 Table 2 Administration, the labour numbers are the

1 same, if you look at them: 5961 and 5 -- sorry, 5911,
2 but then the totals are the same. So that's what I'm
3 trying to get at is what -- what is missing? Like, why
4 does the complement end up being the same for both '17
5 and '18?

6 **A. MR. MOLLARD:** Okay. I'm having trouble
7 following some of the numbers. So you're looking at
8 Table 2 in labour cost for administration, and it goes
9 down --

10 **Q.** Right.

11 **A. MR. MOLLARD:** -- by 50,000, which we identify as
12 the elimination --

13 **Q.** Right.

14 **A. MR. MOLLARD:** -- of the receptionist.

15 **Q.** Right. But then when you go to the actual complement
16 numbers in Table 3.4, forecast for '17 and forecast for
17 '18, the complement is still the same; 9.370 and 9.370.
18 So that's --

19 **A. MR. MOLLARD:** Yeah, the difference is going to
20 be that the -- the Table 2 you're referring to is only
21 for administrative labour. The employment complement
22 history is for the whole company.

23 **Q.** Okay.

24 **A. MR. MOLLARD:** So as I said, the maintenance
25 mechanic that we added into operations keeps the labour

1 complement the same, but that's not accounted for. The
2 maintenance mechanic isn't in that Table 2. That's
3 administration charges. The mechanic would go through
4 Table 1.

5 Q. All right. All right. Now, moving to Exhibit B-7, and
6 that is CW-YEC-1-18, Table 1 cost benefits. So I'm
7 looking at the line item for pensions and RRSP cost
8 category.

9 A. MR. MOLLARD: Yes, we're there.

10 Q. Okay. Then if you look at 2016, it shows 1,330,008 for
11 '16. Then '17 forecast is 1,493,515.

12 A. MR. MOLLARD: Mm-hmm.

13 Q. Now, there's a statement in YEC's response, or as part
14 of that, that the pension RRSP costs are impacted by
15 several items.

16 Now, what I want to pursue with you is the
17 employee retirements. So have -- so you state that
18 this is impacted by yearly wage increase, is the
19 category -- of pensions, RRSP is impacted by yearly
20 wage increases, increases, and decreases in FTE count,
21 vacancy rate. The defined pension, benefit pension
22 plan is a large cost driver. Factors such as changes
23 to market values, changes in accounting. But as we saw
24 in -- I just -- we just saw on Table 3.4 from the
25 application, Exhibit B-1, the employee complement has

1 been relatively stable over this period, so I'm
2 wondering, what are the costs, the increase in costs
3 associated with the pension and RRSP costs?

4 **A. MR. MOLLARD:** Mm-hmm. Okay. So looking at that
5 cost item of roughly \$1.3 million, in round numbers,
6 probably a million of that is related to defined
7 benefit pension plan. The RRSP is defined
8 contributions, so it's relatively fixed. It will
9 fluctuate a bit with -- I'll back up a little bit just
10 to be clear with everybody.

11 Our defined benefit plan is closed. It has since
12 2001. Every employee that's joined since that time is
13 automatically put into the defined contribution plan.
14 So there's no new members. It's just dealing with the
15 members that are there. And relatively to these
16 numbers, like I said, about a million dollars of that
17 1.3 is related to the defined benefit plan.

18 The determination of that expense amount is
19 calculated by our actuary, based on, as it says,
20 accounting standards in -- in -- in effect at the time,
21 as well as the standards direct the actuary as to what
22 factors are required to be taken into account when they
23 do this calculation. Things like interest rates can
24 have a very big impact, and in a low interest rate
25 environment, it tends to drive defined benefit pension

1 plan costs up. So that would be one of -- the major
2 contributing factors is going to be that actuarial
3 valuation.

4 Q. So then the \$1 million that you're referring to is what
5 was actually paid into the plan because of the
6 actuarial values. Is that what I understand?

7 A. MR. MOLLARD: No.

8 Q. Okay.

9 A. MR. MOLLARD: The -- the -- so there's two parts
10 to the actuarial piece for the defined benefit plan.
11 There's the cash contributions that are required, and
12 that -- that comes -- I misspoke earlier. That comes
13 out of the actuarial valuation. They follow the
14 standards of the CIA for determining that for funding
15 purposes. For accounting purposes, they're required to
16 follow accounting standards, but they're not
17 necessarily the same. It's the cash payments are not
18 necessarily the same as the accounting expense.

19 Q. Okay. So when you're looking at the difference for
20 pension and RRSP, is that due to the cash contribution
21 that YEC has to put into the defined pension plan, or
22 is it, as you explained, an accounting issue? Like,
23 I'm just --

24 A. MR. MOLLARD: Yeah.

25 Q. -- trying to understand if the -- it's not the fund

1 paying out pensions because the complement is
2 relatively stable --

3 **A. MR. MOLLARD:** Mm-hmm.

4 **Q.** -- so if you can explain what the large part, as you've
5 pointed out, the 1 million, goes to.

6 **A. MR. MOLLARD:** What it goes to. Okay. Did I
7 mention I don't like pensions very much? Sorry.

8 So yes, so the -- the -- the actuary does the
9 determination of the accounting expense each and every
10 year. I don't want to -- I don't want to leave the
11 Panel with the -- the impression that the cash payment
12 is completely unrelated to the accounting expense.
13 It's just that there's a different set of rules that
14 the accountants require us to calculate for the expense
15 component, and the difference between the two is just
16 washed out into the balance sheet through the pension
17 liability.

18 So it's -- again, it's just the actuary assessing
19 the number, what it's going to be in accordance with
20 the accounting rules, the current interest rates, the
21 current membership in the plan. The membership, as I
22 said is closed, so what my actuary tells me in a closed
23 plan, you're going to expect, all things being equal,
24 the costs to go up because as each employee works
25 another year, they get that one extra year of service,

1 their wages are that much higher, so my defined benefit
2 cost goes up, if that's helpful.

3 Q. All right. Thank you. Now, if you can turn to
4 Exhibit 5, B-5, YUB IR 1-17, and that's Part C and D,
5 and those are on PDF page 53.

6 Now, if you -- in that response, YEC states that
7 the differences in depreciation expense and
8 contribution amortization expense for the years 2017
9 and 2018. So they were looking at what the existing
10 and proposed forecasts.

11 Now, YEC's attributing its observations that are
12 due to either the proposal to transfer deferred
13 overhaul costs carried over from the last GRA to rate
14 base at the start of 2017 as, in the case of
15 depreciation expense or in the case of contributions,
16 that it's due to the proposal to transfer deferred
17 feasibility and regulatory contributions carried over
18 from the last GRA to rate base at the start of 2017.
19 So do you see where I'm referring to, to those
20 responses?

21 A. MR. MOLLARD: Yeah, I have -- I have those --
22 Responses here.

23 Q. Okay. Now, what we're trying to reconcile is the
24 statements from the IR response with the rate base
25 amounts shown on the Excel workbook call -- in

1 Exhibit B-1, tab 7, Schedule 3. And so you'll see the
2 schedule there. I don't have a PDF page for the Excel
3 spreadsheet, but it's tab 7. Oh, 2-82, PDF page 2-82.
4 So if you, once you have that table up or that schedule
5 in tab 7, the Schedule 3.

6 **A. MR. MOLLARD: Okay. I'm there.**

7 **Q.** And if you look at 5, line 5 and then line 8. So given
8 that the PPE balances are the same under the existing
9 and alternative scenarios for each test year, why would
10 the depreciation expense be different, considering the
11 explanation that the difference was due to the
12 inclusion of overhauls? It's not clear. If you can
13 just clarify, that would be very useful.

14 **A. MR. MOLLARD: Yeah, Mr. Chair, I'm not going to**
15 **try and tackle that one at the table. If I could take**
16 **that as an undertaking and get back to you.**

17 **Q.** Certainly. That would be very useful.

18 **A. MR. MOLLARD: Can we go over that one more time**
19 **just so I make sure I'm clear on what I'm reconciling.**

20 **Q.** Sure. Okay. So when you look at the PPE balances,
21 that they're the same under the existing and alternate
22 scenarios.

23 **A. MR. MOLLARD: For 2018.**

24 **Q.** And -- both; 2017 and 2018.

25 **A. MR. MOLLARD: Yes, I see that.**

1 Q. Okay. And then we're wanting clarified why would the
2 depreciation expense be different, even if you consider
3 the explanation that the difference was due to the
4 inclusion of overhauls?

5 A. MR. MOLLARD: Okay. I've got that.

6 Q. And now, YEC didn't provide any detailed rate base
7 information for contributions, so we can only see the
8 amortization dollars are different from existing and
9 proposed, as shown in exhibit -- in that schedule --
10 not Schedule 3 but now Schedule 6. So Exhibit B-1,
11 which is the application, tab 7, Schedule 6, line 8.
12 So if you want to pull that one up.

13 A. MR. MOLLARD: Okay.

14 Q. Now, again, we were wanting clarification around the
15 contributions, because all -- like, in -- all that's
16 shown is the amortization dollars, so if you can
17 undertake to provide the contributions.

18 A. MR. MOLLARD: You're just looking for --

19 Q. Information.

20 A. MR. MOLLARD: -- a listing of the
21 contributions?

22 Q. It would be -- what I'm asking for is the same as we
23 just went through for capital and the PPE balances, so
24 basically an explanation.

25 A. MR. MOLLARD: So reconcile the changes.

1 Q. Exactly.

2 A. MR. MOLLARD: Okay.

3 UNDERTAKING - CLARIFY THE CONTRIBUTIONS
4 YEC MADE IN 2018 AS CONTAINED IN
5 EXHIBIT B-1, TAB 7, SCHEDULE 3

6 Q. MS. BENTIVEGNA: Now, moving on to -- still,
7 though, in rate base -- Section 3.4 of the Exhibit B-1,
8 and looking still at depreciation amortization, so I'm
9 looking at -- or will be looking at the amortization of
10 deferred costs. So these are the -- there's a few
11 references that I want to give you before asking you
12 the questions. So if you look at application, tab 5,
13 Schedules 5.3 to 5.8, and then tab 7, Schedule 5, line
14 7, and then Tables 2 and 3 that are in IR YUB-YEC-1-12,
15 and then -- it's a lot, I know I'm asking you to open a
16 lot, but -- and then IR YUB-YEC-2-26 Attachment 1, and
17 then we'll move on to the other ones as we go.

18 So first starting with Exhibit B -- the
19 application, B-1, tab 5, the Tables 5.3 to 5.8.

20 Now, can you give me a high level explanation of
21 the history of how the large numbers of deferred
22 projects and/or studies came to be? And those are the
23 ones that are listed in those tables.

24 A. MR. MOLLARD: Okay. I'll have a go at that.
25 There's -- I think I'll start -- so at the highest

1 level, we have identified in here four different
2 buckets of deferred costs. And to be clear, deferred
3 costs, this is a bit of a utility-specific approach to
4 accounting. If we were a quote-unquote normal
5 business, a lot of these things would just be expensed
6 in the year they're incurred; they're only allowed to
7 be deferred because we are a utility. So the big
8 buckets that we have in there, again the dam safety
9 reviews, those are things that are unique to our
10 business. The Canadian Dam Association recommends that
11 we do these things every five years or so, so there's a
12 logic built into that that we capitalize those studies
13 when they're done and defer them over a five-year
14 period.

15 Relicensing; at the highest level, we have water
16 license permits for each of our hydro facilities, so we
17 capitalize and amortize over the term of the license
18 for those costs of relicensing.

19 We also have other things that are license
20 related, so you'll see things like the Mayo Lake supply
21 enhancement project is essentially a modification of
22 the license, so we treat it as a relicensing effort.

23 Regulatory, again, that's proceedings such as
24 this. PPAs, reviews, Part 3s, that sort of thing goes
25 through our regulatory accounts. And then the bigger

1 bucket, of course, is the feasibility studies. And
2 this can be a fairly broad range of studies. It can be
3 at the higher level. It's feasibility around new
4 supply options, so when we're looking at -- you know,
5 do we -- you know, looking at alternative sites for a
6 wind program, perhaps, or -- or the other ones that
7 we've run through there, we've done geothermal in the
8 past feasibility studies. It can also be smaller
9 things where we're looking at if we've got a piece of
10 equipment what we know we need to replace but we don't
11 know exactly what the replacement should look like,
12 we'll give the engineers some money to say, go out and
13 study this, see what options are available to come back
14 with a solution.

15 So that's the sort of big buckets. And the
16 feasibility -- as I said, the feasibility study is by
17 far the biggest component but they can vary a lot in
18 their nature underneath that, if that explains sort of
19 background for studies.

20 Q. So you said there were four buckets. You mentioned
21 damn safety, regulatory, feasibility. Did I miss one?

22 A. MR. MOLLARD: Relicensing.

23 Q. Oh, relicensing. So -- and so that basically you're
24 grouping them by the activity that's involved. Is that
25 correct?

1 **A. MR. MOLLARD:** **That is correct.**

2 **Q.** Now, in Board Order in Appendix A to Board Order
3 2013-01, within Section 5.1.3 on deferred costs there's
4 references to categories of deferred projects or
5 studies with costs greater than 1 million. That would
6 be at -- if you want to turn it up, you don't have
7 to -- at paragraph 329. That would be PDF page 70 of
8 the Order -- and deferred projects or studies with
9 costs between 100,000 and 1 million, and that's at
10 paragraph 393, PDF page 82.

11 Now, in the application at tab 5, those schedules
12 that I've referred to earlier, 5.3 to 5.8, there's only
13 deferred cost categories such as you've just mentioned,
14 feasibility study, regulatory, relicensing and dam
15 safety review. But also looking at deferred overhaul
16 category but couldn't any references to those types of
17 projects.

18 Now, can you expand whether there's a way to
19 identify specific projects and costs under plus or
20 minus the million category? Are the dollar thresholds
21 based on categories that you've referenced in your new
22 planning cost accounting policy, which is in the
23 application at Appendix 5.1? Does that -- I'm -- what
24 I'm getting at is what determines the period of
25 amortization of these costs? So they seem to be

1 divided by buckets, as you said.

2 A. MR. MOLLARD: Sure.

3 Q. Then there's a difference in the magnitude of the
4 costs. So if you can give us, again, some
5 clarification --

6 A. MR. MOLLARD: Sure.

7 Q. -- around the amortization of -- of the costs.

8 A. MR. MOLLARD: Sure. The -- so the -- as I
9 mentioned, there's -- there's specific rules around
10 certain of the buckets, dam safety reviews -- as I
11 said, we follow Canadian Dam Association guidelines --
12 so that's five years. Relicensing is tied to the life
13 of the license, so that's -- they're typically 25-year
14 water licenses.

15 The regulatory is now a bit different because it
16 doesn't amortize because we have a hearing reserve
17 account. So I get an appropriation annually to reduce
18 those costs. It doesn't -- doesn't amortize, per se.
19 The planning cost of accounting policy that we're
20 proposing applies to the feasibility bucket, and the
21 assessment of the amortization period is purely on
22 dollars. If it's over a million, it's ten years; if
23 it's over a million, it's five years.

24 Q. Okay. So the amortization of whether -- depends. It's
25 five years if it's under one million and ten years if

1 it's over a million.

2 **A. MR. MOLLARD: Correct.**

3 **Q. And is that for any of these categories?**

4 **A. MR. MOLLARD: Just for feasibility.**

5 **Q. Just for feasibility. Okay. And then you were saying**
6 **for regulatory -- how is that done?**

7 **A. MR. MOLLARD: Regulatory is charged through the**
8 **hearing reserve account, so it's paid for through an**
9 **annual appropriation, as opposed to an amortization**
10 **period.**

11 **Q. And then just -- you said the dam safety.**

12 **A. MR. MOLLARD: Yeah, that -- so that's five**
13 **years.**

14 **Q. Five years. And the relicensing?**

15 **A. MR. MOLLARD: 25 years.**

16 **Q. Five years, as well?**

17 **A. MR. MOLLARD: Twenty-five, sorry.**

18 **Q. Twenty-five, sorry.**

19 **A. MR. MOLLARD: With the exception the Aishihik**
20 **plant, because with our last renewal, we only got**
21 **17 years, I'm reminded.**

22 **Q. All right. And is there a reason for that?**

23 **A. MR. MOLLARD: That's what the Water Board**
24 **granted us.**

25 **Q. Okay.**

1 **A. MR. MOLLARD:** We asked for 25, they gave us 17.

2 **Q.** All right. Now, you said the hearing reserve cost
3 account, that that -- there's an annual amount.

4 **A. MR. MOLLARD:** Mm-hmm.

5 **Q.** That is set against. So that annual amount, if you can
6 remind us what that is.

7 **A. MR. MOLLARD:** 550,000.

8 **Q.** Okay. 550,000. And so then the -- so then is that
9 amount then removed from the account? How does the
10 accounting work for that, then?

11 **A. MR. MOLLARD:** Sure. So I'll -- on an annual
12 basis I will take a charge on my income statement for
13 \$550,000 to reflect the appropriation, and I credit
14 that against the reserve account. So it'll take out
15 that much of -- of whatever costs are in there -- or go
16 into a credit balance.

17 I should clarify that, in the application, we did
18 apply to reduce that annual appropriation. We set up
19 the hearing reserve account in the '12/13 GRA. At that
20 time we were -- we were trying to get to a cycle of a
21 GRA every two years. We weren't able to achieve that,
22 so we're tending to build up money faster than in the
23 account than we're consuming it (verbatim), so we've
24 asked to have that reduced. And I think it's down to
25 260 or something like that per annum.

1 Q. Right. And now with the hearing cost reserve account,
2 I wasn't clear in an answer that was given two days
3 ago, I believe. And I think it was Mr. Rondeau who
4 asked you the question about whether the appeal costs
5 for the ERA --

6 A. MR. MOLLARD: Mm-hmm.

7 Q. -- Court of Appeal --

8 A. MR. MOLLARD: Mm-hmm.

9 Q. -- proceeding would be going into this account.

10 A. MR. MOLLARD: Mm-hmm.

11 Q. So is that a yes that that's where they'll be going
12 that you'll be putting those costs into this, or are
13 they already are in --

14 A. MR. MOLLARD: They are there now.

15 Q. All right. Thank you. Now, you said that the
16 accounting policy, if I didn't misunderstand you, was
17 just for the feasibility studies. Is that correct?

18 A. MR. MOLLARD: Yes.

19 Q. All right. Now, that can be found at Exhibit 5-1,
20 Appendix 5.1, and the -- it appears that the purpose of
21 the policy is to define how costs incurred in relation
22 to planning activities will be accounted for. Is that
23 correct?

24 A. MR. MOLLARD: Yes.

25 Q. Okay. Now, can you give us a condensed version of the

1 differences between the policy that would have -- that
2 was presented in the 20 -- 2012/2013 GRA that's
3 referred to in the Board Order 2013-01 and what's been
4 submitted now in this current GRA?

5 A. MR. MOLLARD: I think I have that. I'd just
6 like to consult with my colleagues --

7 Q. Sure.

8 A. MR. MOLLARD: -- if I could.

9 We'll undertake on that one. I'm certain we have
10 a document of a black-line changes, so I'll bring it
11 back after the break, if that's okay.

12 Q. Certainly.

13 A. MR. MOLLARD: Oh, and my colleague further
14 reminds me I should clarify. So the deferred schedule
15 also includes a reference to deferred overhauls, and I
16 didn't speak to that one because that, in the interim
17 since the last GRA, our auditors advised us that under
18 current accounting rules, you can't account for
19 deferred overhauls under that category. So they've
20 been moved into property, plant, and equipment. It's
21 not that they don't exist; they've just been
22 transferred over so they won't be on those schedules in
23 the future.

24 Q. All right. So you said they've been moved to PP --

25 A. MR. MOLLARD: They would be in PP&E Table 5.2.

1 Q. Okay. So we'll save those questions for the
2 differences when you bring forward the black-line plan.

3 Now, if you want to turn to Exhibit B-5, IR
4 YUB-1-12. And it's PDF page 37 and 39 there's -- that
5 I'm going to be referring to. And it's Table 2 and
6 Table 3 in the IR response. So, sorry, let me know
7 when you have the tables.

8 So when you're looking at Table 2 on PDF page 37,
9 can you confirm that the expense amount shown as net
10 amortization for this feasibility and licensing and DSM
11 are net of contributions?

12 A. MR. MOLLARD: Confirm one thing in my
13 application. Yes, I can confirm that.

14 Q. All right. Now, if the expenses are shown on Table 2
15 net of contributions, can it be assumed that the
16 closing balances for the actual 2016 and the proposed
17 2017 and 2018 amounts that comprise a portion of rate
18 base are likewise net of contributions?

19 A. MR. MOLLARD: Yes.

20 Q. Okay. Thank you. Now, looking at Table 3, so that's
21 on PDF page 39.

22 A. MR. MOLLARD: Okay.

23 Q. Can you confirm that the proposed 2017 and 2018 closing
24 balances amounts, 16167 and 29859 of studies in
25 progress are also shown net of contributions?

1 **A. MR. MOLLARD: Yes.**

2 **Q.** And now if you can go to Exhibit B-1, the application,
3 tab 7, schedules, and specifically Schedule 5, line 7,
4 it shows the expense side of the deferred study costs.
5 So let me know when you see that.

6 **A. MR. MOLLARD: Okay. I'm there.**

7 **Q.** Okay. And then in YEC's response, Exhibit B-19,
8 YUB-YEC-2-26, Attachment 1, the detail of the
9 amortization of deferred costs was consistent with the
10 schedule we've just looked at, Schedule 5, line 7, was
11 provided for the proposed 2017 and 2018 years. So now,
12 keeping those two in mind, I have the following
13 questions: Now, with respect to Schedule 5, line 7,
14 when looking at the information provided in Exhibit
15 B-5, Table 2 in IR 1-12, and Exhibit 19, Attachment 1
16 to IR 2-26 that I just asked you to turn up, to confirm
17 that the proposed costs -- or proposed for the years
18 2017 and 20 years (verbatim), the costs shown, 3883 and
19 3891 were gross amounts; that is, they were costs
20 before any applicable contribution. Now, are we
21 correct in this or is there something missing?

22 **A. MR. MOLLARD: I don't think so. I'm sorry, I**
23 **don't have all the pieces here, but I'm looking at --**
24 **at YUB to YEC-2-26, and if you look at the notes below**
25 **the table, it states in there that those calculations**

1 are net of amortization contributions of .099 million.

2 Q. Well, then, would you mind undertaking -- because not
3 clear, for the -- to provide the composition of the
4 expense amounts by study, the ones that are listed in
5 tab 7, Schedule 5, line 7 on a pre and post
6 contribution basis?

7 A. MR. MOLLARD: So gross cost and then
8 contributions --

9 Q. Yes.

10 A. MR. MOLLARD: -- the net number.

11 Q. And listed by -- by expense amounts -- well, by study.
12 The expense amounts by the study.

13 A. MR. MOLLARD: So when you -- just to be clear,
14 so when you say "by study," are you referring to the
15 breakdown in YUB-26; by each of the buckets, or --

16 Q. Sorry, I'm just going to go back to -- the -- what's
17 shown on the table, so looking at table -- again, it's
18 at tab 7, Schedule 5, line -- no, no, it's the table
19 that's attached, it's Attachment 1 to YUB-YEC-2-26.
20 And there you have the categories there; the
21 feasibility, the relicensing, so basically, yes, what
22 you call buckets.

23 A. MR. MOLLARD: Okay. We have that.

24 Q. All right. Thank you. And if we can have, when you're
25 doing that, the actual 2016, the proposed 2017, and

1 2018 amounts, please.

2 **A. MR. MOLLARD:** Yes.

3 **UNDERTAKING - TO PROVIDE THE**
4 **COMPOSITION OF THE EXPENSE AMOUNTS BY**
5 **STUDY, AS LISTED IN TAB 7, SCHEDULE 5,**
6 **LINE 7 ON A PRE AND POST CONTRIBUTION**
7 **BASIS**

8 **Q. MS. BENTIVEGNA:** Okay. Now moving on to Exhibit
9 B-5, IR YUB-YEC-1-12, and then Exhibit B-19, tables 2,
10 3, and 4, and Attachment 1 to IR 2-26. So if you have
11 those in hand, then I can proceed to ask you questions.

12 **A. MR. MOLLARD:** Okay. I'm there.

13 **Q.** All right. So with respect to the regulatory costs
14 category, is there a difference between what's
15 identified in Exhibit B-5 -- that's IR 1-12, Table 4 --
16 midyear regulatory deferral as rate case assets and
17 Tables 2 and 3, deferred cost studies, which identify
18 categories of other regulatory, and then the regulatory
19 that's referred to in B-19 IR-2-26? It's YUB-YEC
20 IR 2-26. If you can explain if there's a difference in
21 the different terminologies that are used in the
22 different tables and responses.

23 **A. MR. MOLLARD:** Oh, boy. Yes, there's -- there's
24 a lot going on here. I'll try and unpack it if I can.
25 There is -- so the -- in Table 1 of YUB 112, it makes

1 reference to the reserve for injuries and damages,
2 which has its -- I believe the appropriation for that
3 is accounted for differently. It does not go through
4 the amortization account; I believe it goes through our
5 -- our other income statement line items. Deferred
6 gain on fire insurance proceeds is part of our
7 depreciation line item. And the Table 2 deferred study
8 costs, similarly, has got some -- it won't reconcile to
9 YUB-226. There's things in there that are part of
10 those numbers, and then there's some additional things
11 that are not. For instance, DSM is not -- oh, I
12 shouldn't say that. Just a second, make sure I got
13 this right.

14 Q. So maybe it might be helpful if you take us through,
15 like, what's different in them? Like, why the numbers
16 can't be reconciled?

17 A. MR. MOLLARD: It's -- it's probably most
18 effective to do it through an undertaking.

19 Q. All right.

20 A. MR. MOLLARD: Because then I can set up the
21 tables for you and then just show you where those
22 expense items cross-reference to the -- to the Table 7
23 tables -- the tab 7 tables, which shows, like, the
24 corporate income statement, etcetera. So I can show
25 you where those show up in those -- in those lines, if

1 **that's helpful.**

2 Q. Yes, and also the differences in the terminology used,
3 because as you've just said there's a difference in the
4 different --

5 A. **MR. MOLLARD:** **How they're described.**

6 Q. Or unless you want to explain now what the difference
7 in the terminology is.

8 A. **MR. MOLLARD:** **Yeah, I'll do it through the**
9 **undertaking just to make sure I get it right.**

10 **UNDERTAKING - TO ADVISE AS TO THE**
11 **REASON THE NUMBERS CANNOT BE RECONCILED**
12 **IN YUB-YEC IR 2-26**

13 Q. **MS. BENTIVEGNA:** And also if these different
14 categories and amounts, if it's net of contributions or
15 not.

16 A. **MR. MOLLARD:** **So where the amounts accounted**
17 **for, and are they net of contributions.**

18 Q. Yes. And the differences in the terminology?

19 A. **MR. MOLLARD:** **Yes.**

20 **UNDERTAKING - IN YUB-YEC IR 2-26, TO**
21 **ADVISE AS TO, THE AMOUNTS AND**
22 **CATEGORIES ARE DIFFERENT, WHETHER OR**
23 **NOT THEY ARE NET OF CONTRIBUTIONS**

24 Q. **MS. BENTIVEGNA:** Now, with regards to the DSM study
25 costs going back to Table 2 from YUB-YEC IR 1-12, and

1 the proposed amortization amounts for DSM line item for
2 2017 and 2018, 248 and 249, were -- now, did the DSM
3 costs included in Schedule 5 and line 7 of
4 Schedule 5 -- can that be confirmed when we look at
5 Attachment 1-226? Because it doesn't include a line
6 item for DSM costs. So can you explain?

7 **A. MR. MOLLARD:** So are you asking is the DSM
8 amortization costs in the table in YUB-2-26? Is that
9 the question.

10 **Q.** Exactly, where -- where is it found in that table when
11 we can see them when we look at Schedule 5, line 7, but
12 we don't -- when we go to look at the table, the
13 Attachment 1 to the IR-2-26, there's no line item for
14 DSM costs. And so we're wondering what the explanation
15 of where -- then if they're not there, where are they?

16 **A. MR. MOLLARD:** Okay. I believe when we do that
17 undertaking that we just took on, it'll -- it'll show
18 that because I'll show you where those numbers --

19 **Q.** All right --

20 **A. MR. MOLLARD:** Appear.

21 **Q.** -- that would be very helpful, thank you.

22 Now, moving on.

23 **THE CHAIR:** Ms. Bentivegna, are we changing
24 topic now?

25 **MS. BENTIVEGNA:** Yes, slightly.

1 THE CHAIR: Would this be a good time to break
2 for lunch? It's almost 12:30.

3 MS. BENTIVEGNA: Oh, certainly, time flies.

4 THE CHAIR: I know. Okay. So we've run a
5 little bit past to try to shorten up the afternoon a
6 bit, and we'll go for 45 minutes, we'll be back at
7 quarter after 1. Thank you.

8 (PROCEEDINGS ADJOURNED AT 12:37 P.M.)

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10 PROCEEDINGS ADJOURNED TO 1:15 P.M.

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1 Volume 3

2 June 28, 2018

3 P.M. Session

4

5 (PROCEEDINGS RESUMED AT 1:17 P.M.)

6 THE CHAIR: Please be seated. Thanks,
7 everyone for agreeing to the short lunch, and we'll get
8 on our thing.

9 Mr. Landry, do you have anything for us at this
10 point?

11 MR. LANDRY: Nothing further at this point.

12 THE CHAIR: Okay. So let's carry on, then.

13 Q. MS. BENTIVEGNA: Thank you, Mr. Chair.

14 Good afternoon, panel. Now, I'll take you to
15 Exhibit B-5, YUB-YEC-1-2, and it's on -- what I'll be
16 looking at are PDF pages 8 and 9.

17 A. MR. MOLLARD: We're there.

18 Q. And in that, the Board had asked for clarification on
19 negotiated wage increases, and YEC stated in its
20 response to Part A that for the years 2016, an increase
21 of 1.75 was in place. And then in Part B, YEC stated:
22 (as read)

23 "The management and professional group,
24 nonunion, was granted the same
25 increments specified on the same dates."

1 Now, for any year beyond 2016, specifically the test
2 years, 2017-2018, YEC responded in Part D of that same
3 IR that it also included: (as read)

4 "...a general provision for forecast
5 negotiated wages. The specific rate
6 included cannot be provided at this time
7 as this would compromise YEC's
8 negotiations."

9 And it goes on. And then -- now it's June of 2018.
10 What updated information are you able to provide with
11 respect to the collective bargaining agreement?

12 **A. MR. MOLLARD:** Mr. Chair, we have not yet
13 finalized rates for that -- that 2017 period forward.
14 We did participate in a binding arbitration session at
15 the end of May, and we are still awaiting the order
16 from the arbiter on that proceeding.

17 **Q.** And what -- can you give us any information on when you
18 might -- or, well, when did the hearing close, and so
19 when might you expect a decision?

20 **A. MR. MOLLARD:** Sure. The proceeding was held on
21 the 22nd, 23rd of May, and if I remember correctly, the
22 arbiter said he'd need about a month to write the
23 order, so we should be getting it any day now.

24 **Q.** Okay. Thank you. And on the forecast basis, what were
25 the general provisions for wage increases for the test

1 years?

2 **A. MR. MOLLARD:** **Hmm. I'm going to check. I'll**
3 **confirm this, but I believe it was 2 percent in '17 and**
4 **2 percent in '18. We'll confirm those numbers, but**
5 **yes.**

6 **Q.** All right. And would it be the same -- would that
7 escalator apply to both union and nonunion?

8 **A. Yes.**

9 **Q.** And in YEC's response, Exhibit B-5 to YUB-YEC-1-11 at
10 PDF page 34, YEC explained that by comparison, the year
11 2016 was abnormally low for environmental management
12 costs. So I'm -- got a few questions, if you want to
13 pull that up. The environment management, it's Table 1
14 under Administration 2016/2017.

15 **A. MR. MOLLARD:** **Yeah, I'm there.**

16 **Q.** All right. So can you describe in general terms the
17 types of expenses that would be recorded to the
18 environmental management cost category?

19 **A. MR. MOLLARD:** **Sure.**

20 **Q.** And then, as a second part, how the costs -- whether
21 they're similar or different from the brushing costs?

22 **A. MR. MOLLARD:** **Sorry, what was the last part;**
23 **similar or different from.**

24 **Q.** Brushing costs. Whether it accounts for brushing costs
25 or they're broken out?

1 A. MR. MOLLARD: Yeah. So at a high level, the
2 environmental management budget is responsible for
3 maintenance of our environmental management system. I
4 believe it -- it's based on an ISO standard. It's not
5 fully compliant, but it's consistent with the ISO
6 standard that the utilities in Canada use for
7 environmental management. So those costs, there's
8 costs in there for the updating of that. As standards
9 change, they have to go in and update that. They also
10 -- any costs associated with orientation of contractors
11 for environmental management, disposal of hazardous
12 waste; so if we have -- you know, we periodically are
13 testing our distribution transformers for PCBs, well
14 all of our transformers for PCBs, if we identify an
15 asset that's got PCB contamination, the environmental
16 management group will take care of the disposal of it,
17 so some of the disposal costs are in there as well.
18 That's sort of the major components of that budget.

19 Q. And now with regards to brushing costs --

20 A. MR. MOLLARD: Yeah, brushing costs not in there
21 at all, nothing to do with brushing in there at all.

22 Q. Now, can you explain why you responded that in 2016 the
23 costs for the environmental management cost category
24 had been abnormally low?

25 A. MR. MOLLARD: Again, it's -- it's some of it is

1 not recurring in nature, so as I said, things like
2 hazardous waste removal, we've gone through most of our
3 inventory of assets and tested them for PCBs, so we
4 don't have -- we used to have a shipment every year,
5 we'd have to ship out hazardous waste. We've now
6 pretty well gotten on top of it so that tends to not be
7 every year; it may be every other year or every third
8 year that we're disposing of that. And as well, with
9 respect to the EMS system itself, upgrades aren't
10 required every year; it just depends on what happens
11 within the ISO standard if we're required to go in and
12 do any changes to it. So in 2016 there wasn't much of
13 that going on.

14 Q. And for the test years, what are your -- what
15 circumstances do you foresee as relates to those costs
16 that might -- might bring the levels that you forecast
17 in the costs for 2017-2018? If you can give us some
18 explanation of the costs that --

19 A. MR. MOLLARD: So a couple things. The budget is
20 based on -- is put forward by the responsible manager,
21 so he -- he has a view of what's coming in to deal
22 with, so he develops the numbers on that basis. One
23 thing we do have to deal with during these test years
24 is we are pursuing the -- and refer to my colleague,
25 because I'm not sure I'll get it right, but it's the

1 sustainability --

2 A. MR. HALL: Sustainable Company designation
3 from the Canadian Electricity Association. So we
4 received that designation last year, but there were
5 some gaps in terms of reporting and compliance that we
6 have to close, and so some of the costs in the test
7 years relate to activities to close those gaps.

8 Q. And so again, seeing we're in 2018, do you think you'll
9 actually incur the costs or would they be as low as
10 2016? Can you give us any indication?

11 A. MR. MOLLARD: I can't -- I can't say today right
12 now if that's -- if they're going to have that volume
13 variance that they had in '16. I don't have that
14 information right now.

15 Q. Do you think you could undertake to look into it and
16 see how the forecast numbers compare in 2017 and now,
17 to June 2018, as to what the expenditures will be for
18 this environmental cost category?

19 A. MR. MOLLARD: We can do that.

20 Q. Thank you.

21 UNDERTAKING - TO ADVISE AS TO HOW THE
22 FORECAST NUMBERS COMPARE IN 2017 TO
23 JUNE 2018, AS TO WHAT THE EXPENDITURES
24 WILL BE FOR THE ENVIRONMENTAL COST
25 CATEGORY

1 Q. MS. BENTIVEGNA: Now, looking at the your
2 vegetation management policy. That's Exhibit B-1,
3 Appendix 3.1, and that would be at PDF page 92,
4 Section 6 of Appendix 3.1. So the YEC's proposed
5 vegetation management policy stated: (as read)

6 "If approved for use, the following
7 herbicide application methods will be
8 considered for use by YEC..."

9 and then it states the types of what it'll be used for.

10 Now, YEC's response to YUB-YEC-1-19 in Exhibit B-5,
11 that would be at PDF page 57, that would -- at Part A of
12 the question. (as read)

13 "YEC stated that it would require
14 approval from Environment Yukon to use
15 herbicides."

16 Now, can you -- and if you want to look at the exact
17 answer, please go ahead, but can you provide us with an
18 adequate -- sorry, an update on the status of any
19 proposal to use a herbicide for vegetation management
20 that YEC has now?

21 A. MR. HALL: Mr. Chair, at this point, as we
22 outlined in our IR response, there's significant
23 concerns on the part of the public and the governments
24 concerning the use of herbicides, as we -- as was
25 observed in an application by another company. So at

1 this point, we don't have any plans to -- to move
2 forward with the application of herbicides.

3 Q. All right, thank you. Now, looking at the application,
4 Exhibit B-1, tab 7, Schedule 2, line 5, working capital
5 Schedule 27-365. So if you can look at it.

6 A. MR. MOLLARD: Do you have the PDF page number?

7 Q. I don't. I'm just looking to see if I have it in my
8 references. No, I don't, sorry. So it's --

9 THE CHAIR: 281.

10 Q. MS. BENTIVEGNA: Thank you.

11 A. MR. MOLLARD: Okay. We're there.

12 Q. And it -- there's a description of this 27/365, and it
13 looks like a ratio of 27 over 365, which is 7.4
14 percent, has been applied to each of the amounts shown
15 on line 4, which is cash operating expenses. Can you
16 tell us what the 27/365 represents?

17 A. MR. MOLLARD: That's the -- the normal cycle of
18 delay in payments, from the time I get invoiced until I
19 pay it.

20 Q. So then it's not related to a lead lag study result?

21 A. MR. MOLLARD: It may be related, but I don't
22 think we've actually done a lead lag study here,
23 certainly in my time. I think we've used that same
24 factor in each of our proceedings.

25 Q. All right. Thank you. Now, if you turn to application

1 PDF pages B-1, application -- pages 67 and 68,
2 pages 3-19 and 3-20 regarding vegetation management.

3 **A. MR. MOLLARD:** Okay. I'm there.

4 **Q.** All right. At those pages, YEC states that it's
5 seeking approval to eliminate the requirement to defer
6 brushing costs in excess of 2011 actual costs of
7 0.502 million. Can you tell us more, elaborate on this
8 request and why YEC is seeking such a change at this
9 time during these test years?

10 **A. MR. MOLLARD:** Sure. So this goes back to our
11 previous proceeding, 2012/13 -- well, I'll go back even
12 further.

13 We were instructed by the Board in 2008/09, to
14 conduct a study our brushing techniques, our approach
15 to brushing. We did that work. Table 2 studies as
16 part of the 2012/13 on standard industry practices in
17 North America, as well as a condition assessment of
18 the -- of the brushing on our power lines at that time.

19 The Board accepted those studies. They -- they
20 did direct that they needed -- they wanted to see a
21 policy that governed how we would brush. And in the
22 interim while we were preparing that policy, they
23 directed us to fix our brushing expenses at the 2011
24 actual levels of 502,000. Any amount spent over and
25 above that were to be put into a deferral account.

1 So as of the end of 2016, the balance in that
2 deferral account is 2.215, as can be seen on
3 Table 3.14.2. We've produced the policy and provided
4 it to the Board, so our understanding of the direction
5 is that there's no further need to continue with that
6 deferral on the assumption that the Board accepts the
7 policy as presented.

8 Q. So can you just give us what in turn dollar impacts to
9 the O&M expenses for 2017 and 2018 of not deferring the
10 brushing costs?

11 A. MR. MOLLARD: Of not continuing the current
12 practice.

13 Q. Yes.

14 A. MR. MOLLARD: Okay. I believe there was a table
15 in tab 3 that addresses that. There would be -- there
16 would be two impacts to the revenue requirement. So
17 we've -- we've increased the brushing cost up to what
18 we actually -- we actually need to spend, which I
19 believe is -- which my colleague is just looking up.
20 And then we also have the amortization of the
21 2.2 million that we've deferred before. That's
22 \$200,000 a year.

23 So our total brushing revenue requirement impact
24 is a million 487. That's in Table 3.6.1. So if we
25 were to continue the previous policy, that would drop

1 down to 502,000, and we also would not have the
2 amortization of the deferral of 222,000.

3 Q. And that 1.47, is that 2017 or --

4 A. MR. MOLLARD: That is -- 2017 is 1-4-8-7. 2018
5 is 1-4-9-2.

6 Q. Thank you. And are these amounts of the 2017 and 2018
7 amounts both for transmission lines and distribution
8 lines?

9 A. MR. MOLLARD: That's correct.

10 Q. Is it a combined cost?

11 A. MR. MOLLARD: It's correct for both.

12 Q. Just so that I understand clearly, Mr. Mollard, with
13 regards to the vegetation policy, is my understanding
14 correct that if the Board were to accept the vegetation
15 policy, you would no longer amortize or defer --
16 sorry -- defer costs over 500,000, and that then it
17 would be the forecast costs that you would be relying
18 on without any further approval from the Board?

19 A. MR. MOLLARD: Correct. So when we were
20 preparing the application and in reading the past order
21 of the Board, our interpretation was that the Board
22 wanted to see the policy before they would fund our
23 full brushing requirement. So the assumption was made
24 that, okay, here's the policy. Assuming the Board
25 accepts that, we can then go back to our actual costs.

1 **That was our assumption.**

2 Q. Thank you. When I was asking you about the herbicides,
3 your policy contemplates -- vegetation management
4 policy contemplates the use of herbicides. Is there an
5 impact on the cost, the forecast cost since you are not
6 at this point considering the use of herbicides? How
7 does that figure into? Now the policy talks about
8 using herbicides. You've told me that you're not going
9 to use -- will that have an impact on the costs?

10 A. **MR. MOLLARD:** **So the numbers that we put into**
11 **the '17 and '18 forecasts reflect mechanical brushing**
12 **techniques. There's no provision for any herbicide**
13 **application in the test years.**

14 Q. All right. Thank you. Now, I have some questions for
15 you regarding if you -- in looking at your opening
16 statement regarding 2017 actuals -- and that's
17 Exhibit B-22 at PDF page 10 to 12, YEC discusses the
18 2017 actual outcomes. So I have some questions on
19 that, so if you want to pull up pages 8 to 10 --
20 sorry -- pages 10 to 12 of the PDF, the opening
21 statement.

22 A. **MR. MOLLARD:** **Okay. We're there.**

23 Q. All right. So will YEC be updating the applied-for GRA
24 revenue requirement based on 2017 actuals?

25 A. **MR. MOLLARD:** **No.**

1 Q. And why is that?

2 A. MR. MOLLARD: It's -- it's not practice in Yukon
3 in my time, we don't -- we take the risk on -- on
4 forecast changes. So other than the change that the
5 Board directed us to make to be in compliance with
6 ATCO Electric's, we do not typically update those
7 figures, not exclusively. We have made changes in the
8 past, but we don't have a plan in this application to
9 update for those results.

10 Q. Is it not your experience that in making a decision,
11 the Board relies on the best information in order to
12 make a decision on revenue requirement?

13 A. MR. MOLLARD: Absolutely. It -- we just -- it's
14 a bit difficult, Mr. Chair, to look at these numbers
15 and -- and where do you draw the line between the
16 forecast and the actual? You know, certainly there's
17 some positive sales numbers, but, you know, I also had
18 some cost numbers go the other way, so do I update
19 everything or how do I decide which accounts need to
20 get updated or not updated? We do try to respect that
21 forecast risk, utility risk, and I don't update;
22 that's -- that's just our practice.

23 Q. And do you have any approximate dollar impact to the
24 revenue requirement of using the 2017 actuals if the
25 Board were to use the actuals instead of the forecast?

1 **A. MR. MOLLARD:** We did not do a complete update of
2 our revenue requirement for those actuals.

3 **Q.** All right, thank you. Would you be willing to do an
4 update?

5 **A. MR. MOLLARD:** Absolutely.

6 **Q.** Sir?

7 **A. MR. MOLLARD:** Sure.

8 **Q.** All right, then please if you would.

9 **A. MR. MOLLARD:** For 2017.

10 **Q.** Yes.

11 **MR. LANDRY:** I wonder if I could just -- if I
12 may just clarify for the record, because I would
13 consider this to be quite unusual, but that's fine,
14 we've agreed to do it, but when you say "update," I
15 assume you mean update for everything; that is costs,
16 revenues, and the like.

17 **MS. BENTIVEGNA:** Yes.

18 **MR. LANDRY:** Is that what you're asking for?

19 **MS. BENTIVEGNA:** Yes, based on the actuals. I
20 wouldn't expect to cherry pick. It's just if you can
21 update that.

22 **MR. LANDRY:** That's my point; all the negatives
23 will go one way, and all the positives will go the
24 other, and we'll see where it all ends up.

25 **A. MR. MOLLARD:** Sorry, one point in clarification

1 that we'll need: Are we to assume -- because the 2017
2 forecast assumes certain things connected to this
3 application -- brushing, for instance -- so are we to
4 assume that those were approved as applied for or not.

5 Q. MS. BENTIVEGNA: As if.

6 A. MR. MOLLARD: Okay.

7 Q. So looking at it, basically what is the impact on your
8 revenue requirement of each item if the Board were to
9 use the actuals for 2017 and what those would be?

10 A. MR. MOLLARD: Okay. So it'll be all the rules
11 around long-term average, etcetera, will be assumed to
12 be the same --

13 Q. Yes.

14 A. MR. MOLLARD: -- as we applied for.

15 Q. Yes. And -- well, with regards to long-term average,
16 since you brought it up, if you could also do the
17 alternate, the short-term average, as well.

18 A. MR. MOLLARD: So that's two separate analyses.

19 Q. Yes, please.

20 A. MR. MOLLARD: And at what level of detail do you
21 want to see those numbers?

22 Q. Basically the same level of detail that you now have in
23 your application for -- in support -- well, that you
24 have for what the totals are for your revenue
25 requirement.

1 A. MR. MOLLARD: So could I say tab 7 tables.

2 Q. Sorry?

3 A. MR. MOLLARD: The tab 7 levels, at that level is
4 what we'll produce the numbers at.

5 Q. I will check with my colleagues. Yes, tab 7 tables.

6 MR. LANDRY: I wonder if I could just make sure
7 that we're going down a path here I've not gone down
8 before. I don't know how long it will take to do that
9 would be my first reaction. And I wonder if, perhaps
10 at the break, I could have a discussion with my client
11 about that before taking -- let's leave the undertaking
12 on the record, and then I think I want to talk to them
13 just about what this entails and how, and I'd like to
14 come back, if need be --

15 MS. BENTIVEGNA: Sure.

16 MR. LANDRY: -- to the Board to take my
17 position on that.

18 MS. BENTIVEGNA: Sure.

19 MR. LANDRY: That is okay? Thank you.

20 Q. MS. BENTIVEGNA: Now, for the 2018 forecast and
21 your opening statement, at PDF page 12, YEC mentions
22 that: (as read)

23 "The most recent information indicates
24 that Minto will significantly constrain
25 its operations over the last half of

1 this year and that 2018 electricity
2 requirements will be well below the GRA
3 forecast. Similarly, YEC states that
4 secondary sales are currently forecast
5 for 2018 to be no more than 3 gigawatt
6 hours, well below the GRA forecast of
7 11.4 gigawatt hours."

8 Again, will YEC be updating the applied-for GRA revenue
9 requirements based on these updated 2018 forecasts?

10 **A. MR. MOLLARD: No.**

11 Q. All right. And again, do you have any idea of what the
12 appropriate -- or approximate, sorry, dollar impact to
13 revenue requirement might be?

14 **A. MR. MOLLARD: No.**

15 Q. And then can you undertake to update the 2018 forecast
16 for these?

17 **A. MR. MOLLARD: Just for those two factors.**

18 Q. That's --

19 MR. LANDRY: Well, can I -- once again, I'd
20 like to make a comment here. There's the way in which
21 revenue requirements are done in a rate-based utility
22 system like this. We had delays caused by various
23 factors that I'm not going to take a position on here,
24 but to begin, that would be cherry picking. And if
25 we're going to start looking at 2018, which is still a

1 forecast for the 2018, then I don't -- in my
2 submission, it's not appropriate to pick a couple
3 things out and see what it means. There's a lot of
4 things that will change on a forecast basis at this
5 point in time for 2018.

6 MS. BENTIVEGNA: Yes, but however, YEC has pointed
7 this out in its opening statement, and the Board wants
8 to understand what the impact are on the revenue
9 requirement. So therefore, I'm asking for an update on
10 these very matters that YEC has brought forward in its
11 opening statement.

12 MR. LANDRY: It's one thing to bring forward in
13 an opening statement what the actuals are, it's another
14 to effectively change the fundamental way with which
15 we're going to be dealing with the revenue requirement.
16 So if that's what we're going to do -- and I'd like to
17 take some advice on this, if I may, with my client. We
18 can discuss it a little bit, we'll talk -- we'll come
19 back and give our views in a little bit more reasoned
20 basis on this point. We'll leave the undertaking on
21 the record, and I will come back and provide a position
22 on this.

23 MS. BENTIVEGNA: All right.

24 MR. LANDRY: Because there's going to be a lot
25 of things that are going to go the other way in 2018.

1 MS. BENTIVEGNA: And nothing stops YEC from
2 updating it that way, as well. I'm just asking about
3 the points that were raised and wanting updated
4 information on that.

5 MR. LANDRY: I'll take advice on that, and
6 we'll come back, Mr. Chair, and provide our position
7 after the break.

8 THE CHAIR: That'll be fine.

9 A. MR. MOLLARD: And just for clarification on that
10 2018 revenue requirement, you want both short-term and
11 long-term fuel requirements.

12 Q. MS. BENTIVEGNA: Yes, please.

13 **UNDERTAKING - IN RELATION TO THE 2018**
14 **REVENUE REQUIREMENT, TO PROVIDE BOTH**
15 **SHORT-TERM AND LONG-TERM FUEL**
16 **REQUIREMENTS**

17 Q. MS. BENTIVEGNA: Now, in Exhibit B-21, the
18 wholesale forecast -- and B-21 is YEC's rebuttal
19 evidence. So at PDF pages 6 and 7, YEC states it
20 provided an adjusted 2017 and 2018 wholesale forecast
21 that was consistent with its adjusted 2017 AEY power
22 forecast, included in the approved AEY compliance
23 filing, approved by Order 2017-03. Now, can you just
24 confirm that if this adjusted forecast -- sorry, can
25 you confirm if the adjusted forecast is now being used

1 in the revised GRA filing?

2 **A. MR. MOLLARD:** Yes, it would be our intent to
3 include that, use that sales figure for our compliance
4 filing purposes.

5 **Q.** Okay. Thank you. So it would be in the compliance
6 filing and not -- the numbers have not -- were not
7 adjusted in your --

8 **A. MR. MOLLARD:** Yeah, I'm not formally updating my
9 application; I'll correct it when I do the compliance
10 filing.

11 **Q.** Okay. But I just wanted to make clear that it wasn't
12 in the rebuttal evidence and that we hadn't seen it.

13 **A. MR. OSLER:** Exhibit YEB-1-2 carries through
14 the calculations through to the revenue requirement
15 outcomes, but that's the only evidence on the file in
16 the proceeding on that.

17 **Q.** All right, thank you. Now, if I can take you to --

18 **A. MR. OSLER:** Sorry, I misspoke. I said 1-2,
19 and I've been corrected that it was YUB-1-3, I believe.

20 **Q.** All right. I'm glad you corrected it. I was running
21 through those numbers in my mind.

22 **A. MR. OSLER:** I apologize. Sorry.

23 **Q.** In IR response to AEY-YEC-1-4 PDF page 14, that's
24 Exhibit B-8, YEC stated that: (as read)

25 "With regards to a shorter period for

1 the DCF water record, planning models
2 for hydrogeneration system seek to
3 secure longer rather than shorter
4 periods of reliable data for the water
5 records used in the simulation models."

6 Now, can you comment on why the model would seek to
7 secure longer rather than shorter periods?

8 **A. MR. MOLLARD:** Sorry, Ms. Bentivegna, I just want
9 to make sure I have the right reference. You're at
10 AEY-1-.

11 **Q.** 4?

12 **A. MR. MOLLARD:** 4.

13 **Q.** I believe it's PDF page 14.

14 **A. MR. OSLER:** I think, in part, the answer can
15 only be understood in the context of the question. So
16 the answer is saying, if we're doing a long-term
17 average, we want to see the full record at the moment,
18 at least, for all the years of water record we have.
19 And we don't use -- I won't use the word "cherry pick,"
20 we don't start picking shorter time periods.

21 Now, if you've got a hundred years of water
22 records, you might have some other more sophisticated
23 comments to make, but we don't have any for this
24 utility with 35 years of water records. So that's the
25 point of the answer. It's referencing what is required

1 for long-term averaging. It really isn't commenting on
2 what's required for short term.

3 Q. All right. Thank you. Now, in looking -- or when the
4 short-term forecast was done, how -- do you have any
5 comments on the short-term variability of the water
6 data? Like, what is -- what was considered and what
7 the period was? We understand that the long term is
8 35, but what was the period that was used for the short
9 term, and how does that -- do you have any views on its
10 impact using the short term?

11 A. MR. OSLER: The -- the long-term average
12 includes many things, as the user manual that's been
13 provided shows. One of them is 35 years of water
14 record, but there's also the whole simulation process
15 in order to come up with a long-term average. And
16 others can comment on that in more detail if you want.

17 In the short term, there was no attempt to go
18 through anything like that type of a simulation
19 process. There was a simple process of saying, pick a
20 date when we're preparing the GRA -- I think it was
21 November, some date in November of the prior year,
22 2016 -- for the reservoir levels that existed at that
23 time and assume long-term average inflows, which is
24 just a simple calculation of the long-term average
25 inflows, from that point forward.

1 And then the only other complexity involved is
2 what do you do after you get out a year, a year and a
3 half, and there is an explanation in the filing to do
4 with the Part Two ERA material. That one approach was
5 taken in Table 2.2 of the Exhibit B-1, the original
6 filing, and another approach was taken in the
7 short-term forecasts filed later in December of that
8 year.

9 The difference boiled down to simply extending the
10 long-term average inflow data continuously right
11 through the two test years and not resetting it at the
12 October/November time period in 2017 based on a
13 five-year average of reservoir levels. And I'm not --
14 I'm giving you an overview. I'm not trying to be held
15 to account for everything precise.

16 And the argument we used was if you were looking
17 at a long -- a short-term average for the purpose of
18 this type of forecasting, you wouldn't go through the
19 process of resetting it because there's no particular
20 basis to assume that the average of the last five years
21 has any particular meaning as to what the reservoir
22 levels would be like two years from now.

23 One of the big lessons about short-term
24 forecasting for most hydro utilities I've seen and
25 certainly in the case of Manitoba Hydro reviews, you

1 don't really have a good idea of what's happening more
2 than about a year, year and a half out. You can be
3 badly surprised.

4 So we did all those things. Now, those were done
5 for the purposes of filing information that the company
6 was not planning to rely upon for revenue development.
7 So I don't think there's anybody that I know that has a
8 lot of confidence in that whole process. It was more
9 for information than for something that they would ever
10 want to have anybody rely upon.

11 The operators of the system will use more
12 sophisticated techniques for the purpose of looking
13 forward 6 months, 12 months, whatever. And my
14 colleagues can comment on that. But we didn't use
15 those types of techniques at all because it's a
16 two-year test year. We're going way beyond the time
17 period that the operators are comfortable forecasting.

18 Q. Mr. Osler, in your view, which would -- for purposes of
19 forecasting revenue requirement, which would be more
20 accurate? Would it be the short-term average? --
21 well, the short-term forecast, hydro forecast, or the
22 long-term, if you're looking at it in terms of the two
23 test years?

24 A. MR. OSLER: And the question you asked me was
25 which would be more accurate.

1 Q. Yes.

2 A. MR. OSLER: And the --

3 Q. In terms of the -- in terms of forecast for revenue
4 requirement.

5 A. MR. OSLER: Well, depends what you're trying
6 to do with the revenue requirement. If you are trying
7 to reflect, on a relatively stable long-term position
8 for the capability of the hydroelectric assets, the
9 long-term average is by far the preferred approach.
10 But you have to have the techniques in place that we
11 have elsewhere in the application to deal with deferral
12 accounts, contingency accounts to deal with what
13 happens when the actual thermal in that year is
14 different than the long-term average.

15 If you are trying to discuss what would be the
16 actual diesel you had to run in the next year or so,
17 you should try and develop a short-term forecast that
18 you could rely upon for that purpose, which wouldn't
19 necessarily be the one that we have in this
20 application.

21 The one that we have in the application for sure
22 has been very inaccurate, if you want to look at it
23 just by measuring it, in terms of what actually was the
24 diesel requirement versus the short-term forecast. And
25 if somebody got into doing -- measuring accuracy in

1 terms of percentage variation, it would be a very large
2 percentage.

3 So the technique that was used here was, as I
4 said, for information. Nobody was really relying on
5 it, and it isn't very good. So I wouldn't want to use
6 that even for a short-term purpose if the objective was
7 specified to be that.

8 You would still need a contingency fund to deal
9 with the fact that, no matter what you forecast, you'll
10 be wrong. It'll be different. And to the extent that
11 the difference is due to water and your policy hasn't
12 changed from the -- what it was since the beginning of
13 this company and its regulation, you would still need
14 to have a deferral account to deal with the variation
15 in thermal requirements due to availability of the
16 water being different than forecast. So you need a
17 deferral account in either case.

18 This application was prepared based on the same
19 premise as the prior one and the mid-1990 one with
20 long-term average based on the policy assumptions I
21 specified. If those policy assumptions are retained,
22 that's the more appropriate approach -- I'm not sure
23 about the word "accurate" -- that I would certainly
24 recommend.

25 Q. And in terms of the changes in climate, would the

1 short-term variability in water be more representative
2 of the current environmental climate than a long-term
3 average?

4 A. MR. OSLER: Yeah, Mr. Sreckovic probably can
5 comment on that. It's more of a specific question of
6 getting at how do you reflect climate changes in these
7 various things, so...

8 A. MR. SRECKOVIC: Mr. Chair, it is a very complex
9 problem. Climate change is a long-term process, and we
10 really do not know at what stage of that process we
11 are. Yukon Energy is very keen to figure out what
12 climate change will do to inflows to our lakes, and we
13 commissioned several studies to inform us about that.
14 At this point in time, those studies are in progress,
15 and we really don't know what the studies will show us.
16 Once we figure out what the future inflows will be
17 caused by climate change, we will be in a better
18 position to -- to determine if it would be better to go
19 for short-term or long-term. At this point in time, it
20 is inconclusive because we simply do not have
21 sufficient data.

22 A. MR. OSLER: But I think the other thing to
23 keep in mind is that if you really had information you
24 could reply upon for understanding in the test years
25 how climate change is modifying either the long-term or

1 the short-term numbers, then either the long-term or
2 short-term numbers could be modified to reflect that.
3 I don't think anybody has that degree of understanding
4 at the moment. In fact, I'm certain they don't. And
5 the fact that we had a few years of warm weather that
6 led to lower loads has been reverted in the 2017 actual
7 thermal requirement -- you know, overall load
8 requirements. So we got to be very cautious about
9 assuming we understand what happened last year was due
10 to this or that or the next thing.

11 We do know that short-term variability is very
12 high historically, and I don't think we have any
13 particular reason to believe that it's going to become
14 less variable as we go forward in the future. And we
15 do know that if you can get a useful model that does a
16 long-term average, it will do a completely different
17 approach to that problem, whether we do it today or ten
18 years from now.

19 So incorporating climate change knowledge into
20 either one of those two things, as you just said, is a
21 challenge that has yet to be resolved, but people are
22 working on it very hard.

23 Q. All right, thank you.

24 Now, in response to CW-YEC-1-4(d), that's PDF
25 page 23, Exhibit 7, YEC mentions that the sales and

1 demand forecasts from the resource plan inform the GRA
2 forecasts but not directly as they are very -- they
3 have a very different time resolution. YEC mentions
4 that the GRA forecasts are much shorter term and
5 therefore there is more granularity of data to support
6 the forecast by accessing customer and community
7 specific information and incorporating that into the
8 forecast. Now, if you see where I'm referring to.

9 **A. MR. OSLER:** Which -- which section of it was
10 it?

11 **Q.** It was D.

12 **A. MR. OSLER:** D?

13 **Q.** D, like Donald.

14 **A. MR. OSLER:** Yeah, got it.

15 **Q.** Now, would the logic not apply to other forecasts, such
16 as the DCF water record?

17 **A. MR. OSLER:** No.

18 **Q.** All right; care to elaborate briefly?

19 **A. MR. OSLER:** Can I answer that honestly? No,
20 never mind. In the one case, the objective is to
21 forecast as best as we can what is going to happen in
22 the two test years. That is the load forecast. So the
23 objective is very specific: We're not trying to
24 average out over 35 load years, we're trying to get the
25 next two years as accurately forecast as possible.

1 And in that sense, we acknowledge that it's
2 different than trying to do a 20-year resource plan
3 forecast. The 20-year resource plan forecast should be
4 updated for that reason every time YEC appears before
5 the Board during the planning period, whether it's for
6 this purpose or some other purpose.

7 However, if we agree that the purpose of the water
8 forecast is to establish a long-term average that
9 stabilizes rates, smooths out the impacts of water
10 variability, and is consistently applied through any
11 time we appear before the board, whether it's for this
12 purpose or for a Part 3 or something else, then we
13 shouldn't change our forecast for the water at all, in
14 terms of methodology.

15 However, the ultimate long-term average forecast
16 number that you see for any year will be affected by
17 the load forecast you adopt. So the number will change
18 based on the load forecast. The methodology should not
19 change unless you have more water years or more recent
20 information. If you have more water years and you have
21 more recent information to make the model as up to date
22 as possible, it is understood that you should apply
23 that more recent information in the model, as people
24 did in, say, the LNG Part Three hearing compared to the
25 2012/13 GRA. The model includes some changes. But the

1 basic approach, you don't go from long-term to
2 short-term, in my submission, because your objective is
3 to have a long-term average and do it consistently for
4 every time you appear.

5 Is that short?

6 Q. Thank you. Now, still with CW-YEC-2-5, PDF page 34 of
7 Exhibit B-19, YEC states that: (as read)

8 "Short-term forecasts are used by YEC
9 for operational purposes and to assist
10 with financial planning and not for
11 purposes of setting the GRA revenue
12 requirements."

13 Now, can you explain why short-term forecasts are not
14 used for the purposes of setting revenue requirement, or
15 if we need more context to those statements?

16 A. MR. MOLLARD: Sorry, Ms. Bentivegna, can we have
17 that reference again, please.

18 Q. Sure. It's CW -- it's Exhibit B-19.

19 A. MR. MOLLARD: Mm-hmm.

20 Q. And it's PDF page 34, it's CW-YEC-2-5?

21 A. MR. OSLER: Okay. Sorry, could you repeat the
22 question?

23 Q. Yes. I was -- the question was if you could explain
24 why the short-term forecasts are not used for purposes
25 of setting the revenue requirement? And that's why I

1 was saying if you want to put more context around those
2 statements or what, to clarify what is meant by that.

3 **A. MR. OSLER:** The question was a very general
4 one, and the answer was equally general. I mean,
5 inside the company, short-term forecasts are used for
6 those purposes. And I think I said earlier I don't
7 believe that the forecasts that are in this GRA called
8 short-term forecasts are remotely close to what the
9 operators would use. They were crafted together based
10 on past precedent and on the understanding that nobody
11 was going to use them for rate purposes. So the words
12 have a different meaning, depending on the context, and
13 this was answered very generally: Why does the company
14 do short-term forecasts? And it wasn't, in my opinion,
15 being answered in the context of short-term forecasts
16 were a revenue requirement, and the answer I would give
17 is they only do it because they did it before and they
18 run a particular process, but nobody should rely on
19 them for revenue requirement setting. It's a
20 consistent application of a past process for doing
21 certain numbers in a document.

22 **Q.** I'm still trying to understand -- and maybe you can
23 clarify -- how using a different forecast for setting
24 the revenue requirement, whether -- how using it, will
25 it ultimately drive financial planning consistent with

1 using short-term forecasts to determine expected fuel
2 costs and forecasting cash flows? That might be more
3 specific.

4 **A. MR. OSLER:** Well, maybe Mr. Mollard could
5 comment on the relevance of such forecasts for him and
6 how far out he needs to have them to forecast his cash
7 flows. Is it six months or eight months as distinct
8 from two years with a GRA prepared in the fall?
9 Because he has to do both, prepare the GRA and do the
10 cash-flow forecast.

11 **A. MR. MOLLARD:** Yeah, cash flows we're typically
12 forecasting out 12 months.

13 **Q.** And what impact would the -- or is there any -- the
14 financial planning using the short-term forecast?
15 Like, will it have an impact on expected, for example,
16 fuel costs? Another example that you just answered was
17 the cash flow, but -- so if you're using forecasts for
18 purposes of the GRA, what are the impacts of using the
19 short-term forecasts for elements of the revenue
20 requirement? Does it have an impact on basically the
21 expected -- arriving at what's the expected fuel costs
22 or forecasting cash flows?

23 I'm just trying to understand what the difference
24 is between short-term forecast and GRA forecasts from
25 YEC's point of view.

1 A. MR. OSLER: Perhaps Mr. Mollard could explain
2 it in the context of assuming we had a long-term
3 average forecast, how would the cash flow for the next
4 12 months, type of thing, be affected, in which case
5 there would be two items. One would be his payments
6 for purchases of actual fuel, and the other part would
7 be provide for the payment in the DCF.

8 A. MR. MOLLARD: Yeah. So to the extent that I
9 have to forecast what my thermal fuel supply is going
10 to be, the short-term forecast is what we use to plan
11 that out. It -- it doesn't inform my financial
12 results. In a long-term average world that I'm in now,
13 I don't need that for my financial forecasting because
14 I'm on a long-term average basis, and that establishes
15 my fuel expense for the year.

16 Q. All right. Thank you. Now, in Exhibit B-21, which is
17 the YEC rebuttal evidence, now, regarding the
18 intervener evidence filed by the City of Whitehorse --
19 so I'm looking at Exhibit B-21, PDF page 6. Now YEC
20 states that its: (as read)

21 "...load forecast in each resource plan
22 reflect changes in response to new
23 information since the previous resource
24 plan. YEC also mentions that GRA
25 forecasts are prepared separately from

1 resource plan forecasts and are based on
2 the best information available at the
3 time the GRA is prepared."

4 YEC further states -- goes on to state that YEC is
5 preparing a GRA -- that YEC: (as read)

6 "In preparing a GRA bears the risks
7 related to its load forecasts which are
8 not typically updated during the GRA
9 proceeding."

10 And my question to you is, given that YEC bears the risk
11 with not updating the load forecasts for the GRA, can
12 you please explain why YEC would choose not to update
13 this information.

14 **A. MR. MOLLARD:** So I think I mentioned previously,
15 practice for -- for the utility in this jurisdiction
16 has in most cases been that we -- we set our load
17 forecast based on our approach, and we do not update it
18 in process. The risk of that forecast lies with the
19 utility, and we live with whatever happens in actual
20 fact, but we don't, we don't update the GRA numbers,
21 because it's -- it becomes a never-ending cycle. At
22 what point do you stop updating because the numbers can
23 change basically daily. So it's just easier to set the
24 number based on our preparation and leave it there
25 for -- for the balance of the proceeding.

1 A. MR. OSLER: And I think I would just emphasize
2 that, in terms of internal discussion, it's simply an
3 understanding of what is -- what is required of the
4 utility in the context of the precedents and the rules
5 in this jurisdiction. If -- if there was to be a
6 change in that, okay. I mean. But it's exactly the
7 way it was described and reflected in the rebuttal.
8 That's the opinion of what we have to do, if you want
9 to put it that way. And if we're wrong, then -- or if
10 somebody thinks it would be a good idea to change it --
11 there have been material changes from time to time. In
12 '12/13 there was a material change in the industrial
13 forecast because everybody knew the Minto mine had
14 reduced its load.

15 But I can tell you at the time when that happened,
16 there was no assumption that we were entitled to have
17 that changed. That was brought forward to the Board,
18 and from our interpretation the Board gave a direction.

19 So I think I'll leave it at that. There's nothing
20 remotely scheming or anything in it. It's entirely an
21 assumption of what are supposed to be the rules.

22 Q. All right. Now, I'm just trying to understand again in
23 B-21, Section 3.2.1 -- that's PDF page 6 -- YEC states
24 that: (as read)

25 "The impact of industrial load changes

1 has been material which underlines the
2 need for ongoing updates to reflect the
3 best available information."

4 Given this statement -- I'm trying to reconcile it with
5 what you just said -- can you explain why -- why
6 updating load forecasts or other information to the
7 current information is not a good practice and the Board
8 using the best available information at the time that
9 the proceeding is taking place.

10 A. MR. MOLLARD: I -- Mr. Chair, I don't -- I don't
11 want to leave the impression that we have an opinion
12 that one or the other is good or bad. We're simply
13 following the rules as we understand them as they apply
14 to this jurisdiction.

15 I don't particularly have an attachment one way or
16 the other. I mean, I have my opinions, but what I've
17 prepared here is what I believe to be our rules in this
18 jurisdiction to date.

19 A. MR. OSLER: And I would say that the rebuttal
20 was rebutting on the point of forecast accuracy, not on
21 the issue that you're asking.

22 In other words, we were trying to explain that
23 there's a reason why these forecasts that were
24 referenced varied, and one of the biggest factors in it
25 was industrial. And each time we come forward with a

1 new forecast -- not getting into the discussion you and
2 I are having -- it makes sense to give the most recent
3 information.

4 The only reason we're not doing that here is for
5 the reason that Mr. Mollard just explained. And if we
6 have direction or correction, whichever is the right
7 word, to do it differently, then we would of course do
8 it differently.

9 Q. Thank you. Now, with regards to Exhibit B-19,
10 JM-YEC-2-5, at PDF page 49, in response to Mr. Maissan,
11 YEC confirms that its view that rates will be more
12 volatile using short-term forecasting method -- a
13 short-term forecasting method. And in your view, does
14 the volatility imply less accuracy? Is that what the
15 context of that response was? Or if you can clarify.

16 A. MR. MOLLARD: I don't -- I revert to Mr. Osler's
17 comments earlier: It's -- in our view, it's not -- it
18 doesn't necessarily go to accuracy, it goes to, if I
19 could say expectation. Our concern with short-term
20 forecast is that variability in water conditions can
21 materially affect our fuel forecast, our fuel expense
22 each and every year whereas with the long-term average
23 forecast, you get that smoothing impact. So it's
24 simply that. Yeah, I'll leave it at that. That's the
25 -- our understanding of that.

1 A. MR. OSLER: And the question was in the
2 context, I believe, of pricing for customers. And so
3 the point at one level we're making is very simple; the
4 pricing will be much more volatile if you have
5 short-term forecasting because the factors that affect
6 things change much more over the life of the assets.
7 Over the long term for sure they'll be much more
8 volatile, whether they're more volatile in six weeks or
9 six months or whatever.

10 And the second thing perhaps would be in one's
11 mind is that probably your ability to forecast in
12 detail is subject to a lot more variability as well,
13 when you're trying to be accurate as to what's actually
14 going to happen, as distinct from trying to average it
15 out over a long time period. So the number you come up
16 with will probably change a lot more for that reason
17 when you're doing short-term forecasting than it will
18 if you're doing long-term averaging. But the focus was
19 pricing for the customer.

20 Q. Thank you. Has YEC done any research on whether
21 current favourable water conditions will in the future
22 go back towards long-term average conditions? I'm just
23 interested if there's any information -- any research
24 information. I understand the long-term average, but
25 has there been any --

1 A. MR. OSLER: I'll let Mr. Sreckovic comment,
2 but when we say "long-term average," I don't think
3 there's any expectation that in a certain year we're
4 going to hit the long-term average. That's not the
5 concept at all. So the concept is that we're averaging
6 out what we believe, looking at 35 years of record, are
7 pretty wide variability, and that variability,
8 according to certain information that we've published,
9 you can see how the models show it to be over each of
10 those 35 years and where the variability occurs. It
11 tends to be very focused in terms of a drought over
12 several years, but would you like to elaborate?

13 A. MR. SRECKOVIC: Mr. Chair, we -- we forecast
14 inflows to our lakes as far to the future as we can.
15 And that future is really not remote, because the -- to
16 forecast the inflows is very complex, and the current
17 state of the art is not there yet.

18 That's why we -- we use the long-term forecast,
19 just to figure out what could happen in the long term
20 on the average, and based on that, we -- we make our
21 decisions. Philosophically, it is something like
22 creating a fund for a rainy day.

23 A. MR. OSLER: Or a dry one.

24 Q. All right. Now, in response to YUB-YEC-1-57(b), that's
25 Exhibit B-5, PDF page 2-18, YEC stated that it had no

1 recent contact with the proposed customer regarding the
2 Whitehorse Copper tailings industrial load. That was
3 forecast to be supplied by AEY in 2013 in the 2013 YEC
4 compliance filing. And I'm just wondering if there's
5 any update to that information.

6 **A. MR. MOLLARD: No change.**

7 Q. And so would YEC consider that that potential load is
8 lost or does it still account for it in its long-term
9 forecast and resource plans?

10 **A. MR. MOLLARD: We have not included that in any**
11 **of our long-term plans.**

12 Q. Thank you. Now, in its rebuttal evidence of
13 Exhibit B-21, Appendix A, PDF page 18, YEC states that:
14 (as read)

15 "Differences between resource planned
16 forecast and actuals are attributed
17 largely to changes in industrial load,
18 and that the timing for connection of
19 new mines as well as their ongoing
20 operations can be highly uncertain.
21 YEC continues on to state that the
22 industrial mine load will continue to
23 be a major source of variance in the
24 Yukon grid forecast and that YEC
25 updates the Yukon grid load forecast on

1 an ongoing basis to reflect the most
2 recent information regarding industrial
3 loads and other changes on the system."

4 Now, can you comment on the frequency represented by the
5 words "ongoing basis"? How often do you attempt to get
6 up dates from individual industrial customers?

7 **A. MR. MOLLARD:** We'll typically try and reach out
8 to them in connection with quarterly updates for our
9 board of directors. Sometimes it's just a quick email,
10 a phone call; we don't go into great detail. We'll try
11 and do a little bit more -- a little bit more research
12 if we're doing our business plans, or certainly if I'm
13 doing a GRA, I'll try and meet with the customers and
14 talk about where they're at.

15 **A. MR. OSLER:** There's also, for anybody who
16 isn't an active industrial customer, in their PPA,
17 there will be a requirement for them to give regular
18 updates to the forecast at certain times of the year
19 and that type of thing. And I can tell you that
20 anytime anybody has to make a major capital decision or
21 make an appearance before the Board, there's going to
22 be an update in the sense of just, in practical terms,
23 what's the latest, because it can change so quickly.

24 **Q.** All right, thank you. Now, I just wanted to go back to
25 an issue when we were talking about the battery and

1 what it was going to do and intended to do and the
2 goal. I want to go back to one specific point. In the
3 transcript solutions study that was provided as part of
4 YEC's response to YUB-YEC-1-78, that's Exhibit B-5, PDF
5 page 2-82. If you want to look at that, the operations
6 and maintenance costs for the battery storage system
7 were estimated to be just over \$200,000 per year. And
8 that's at PDF 57 of the study. So I don't know if you
9 wanted to pull it up or --

10 **A. MR. OSLER:** **The problem we're getting is we**
11 **don't have the study in the piles of paper here.**

12 **Q.** Okay. Subject to check, anyway, that was the estimated
13 O&M costs. Now, in response to CW-YEC-2-8 of B-19,
14 PDF 38, YEC referenced four 2-megawatt diesel rental
15 units installed in November of 2017. And so my
16 question is more around these units than the cost of
17 the -- in the study of the O&M for the battery. So.

18 Can you provide us with the cost, what the cost
19 was to rent and operate those four units, including the
20 specific time frame over which those costs were
21 incurred? And I'm referring to those 2-megawatt diesel
22 rental units installed in November of 2017.

23 **A. MR. MOLLARD:** **So for the four 2-megawatt units**
24 **and were installed for four months for a rental cost of**
25 **\$600,000. In addition, we had about \$100,000 of costs**

1 associated with connecting them into our substation
2 here in Whitehorse. There was no -- we did not run the
3 units, so there was no variable cost.

4 Q. So that was just the cost to rent and --

5 A. MR. MOLLARD: Install.

6 Q. -- to install them.

7 A. MR. MOLLARD: Correct.

8 Q. All right. Thank you. All right. Now, moving on to
9 fuel prices and fuel mix. If you can turn up,
10 Exhibit B-5, YUB-YEC-1-26 at PDF page 74. Now, in that
11 response, Part A at PDF 74, YEC shows that for 2017,
12 the delivered fuel price of LNG shows it at .56 per
13 litre, 56 cents per litre from Delta, B.C. The 2017
14 delivered price for LNG from Ferus is .4331 per litre.
15 Sorry, if you have it, then I can ask the question.

16 A. MR. MOLLARD: Yes.

17 Q. Okay. Great. The forecast delivered price for LNG is
18 .3773 cents. That's from -- sorry, oh, sorry --
19 dollars, not cents. This is on the application,
20 Exhibit B-1, PDF page 52, line 20 for each of the test
21 years.

22 Does YEC consider its forecast delivered price for
23 LNG to still be valid, considering what the response
24 was, about what the delivered price was?

25 A. MR. MOLLARD: Yes, we were -- I would

1 acknowledge we were somewhat aggressive when we set
2 that price. We took -- we selected the supply option
3 that offered us the best pricing on LNG, which at that
4 time was -- was fuel from Ferus.

5 We did -- there was some issues in -- in the early
6 part of the year with some of our suppliers. They
7 weren't able to meet our needs, so we did have to pull
8 some loads from Fortis. We -- they've been a good
9 supplier, but they're in Delta, so they're twice
10 distance, and that's what drives up the cost. So our
11 aspirational goal is to get as much of our fuel out of
12 the north -- northeast of because, whether it's Ferus
13 in Elmworth or AltaGas in Dawson Creek. But that
14 should bring us more in line with what we've set for
15 our price in this application.

16 Q. Thank you. Now, again, Exhibit B-19, YUB-YEC-2-19(b),
17 PDF page 4-45. Now, in Part B, YEC states: (as read)

18 "As reviewed in YUB-YEC-2-22, the
19 short-term alternative GRA forecast
20 60/40 LNG-diesel allocation mix is not
21 correct or appropriate for the long LTA
22 forecast in the GRA."

23 Now, YEC was directed to provide an alternative
24 short-term forecast. In that the short-term forecast is
25 the 60/40 LNG-diesel ratio, is -- sorry, is the 60/40

1 LNG ratio, the best forecast that YEC can provide? And
2 I'm talking in terms of the alternative short-term
3 forecast.

4 A. MR. MOLLARD: Well, I think that's -- that's one
5 of the concerns we have with applying that's short-term
6 approach simply because, on any given year, that ratio
7 can move around quite a lot, depending on what happens
8 in the system. So, you know, compare to the long term
9 where you make an assumption about, over the long term,
10 about what the ratio is going to be so you know more
11 precisely what's going to happen. But the 60/40, it's
12 going to change depending on water conditions, load
13 conditions, all that sort of thing. So it would be
14 more difficult to set on that basis.

15 A. MR. OSLER: The response to this question was
16 talking about the fact that, for a long-term average
17 forecast, you don't use the type of thinking we'd use
18 for a short-term one. That's all that's, in the end,
19 saying.

20 Whether the -- the 60/40 was the best that people
21 could put together at the time that the short-term
22 forecast was being rapidly assembled based on the
23 information as reported on what had happened recently
24 in the short term in that document, in the filing. I
25 think the percentage in fact in 2017 overall and

1 recently has been a little bit higher for LNG than was
2 seen then because the loads have also been higher.

3 And in general, for a simple statement, we believe
4 that the ratio of the LNG to the diesel would tend to
5 be higher as the loads get to be higher because there's
6 more opportunity to be talking about long-term running
7 of the machinery and not getting into the restrictions
8 that were discussed with you earlier that apply -- that
9 tend to apply in shorter term -- shorter lower loads
10 that -- associated with lower volumes of required --
11 lower loads require lower thermal typically. And so
12 there's more of a diesel in that mix.

13 So probably the best that we had at the time was
14 60/40. If you were doing it, redoing it today, it
15 would probably be a little bit higher ratio for the
16 loads that we are now seeing.

17 Q. All right. Thank you. Now, going back to your
18 application, Exhibit B-1, and at PDF page 2-98, and
19 it's page 8-5. The third bullet is what I'm referring
20 to.

21 A. MR. OSLER: It's in tab 8.

22 Q. Okay. So you can see it says: (as read)

23 "A somewhat greater business risk based
24 on all measures of utility size, YEC is
25 much smaller than FortisBC Electric, its

1 reliance on its own generation, its lack
2 of any interconnection with the external
3 electricity market. This last set of
4 factors was seen as conclusive evidence
5 that YEC's risk was materially greater
6 than Fortis's -- FortisBC Electric."

7 Now, when referring to generation, does YEC have or face
8 generation risk?

9 **A. MR. MOLLARD:** Mr. Chair, my understanding from
10 the historical record just generally is that, as the --
11 as a generator, you're considered to have more risk
12 relative to those utilities that do not have
13 generation. That's our general understanding of that
14 rule.

15 **Q.** All right. Thank you. And so you just said that it's
16 in relation to a non-generator, that a generator has
17 more risk, and so I'm trying to understand what risks
18 that YEC would face, in other words, what's the risk to
19 the company and how -- by being a generator, as opposed
20 to just -- as opposed to a distributor, how does that
21 impact the company?

22 **A. MR. MOLLARD:** Well, I think just I'll state at a
23 very high altitude because that's where I'm
24 comfortable, but just generally speaking, looking at
25 the nature of the business, the nature of the operation

1 and how you maintain those assets, generation assets by
2 their nature are considerably more complicated than a
3 distribution system or a transmission system. There
4 are poles and wires and transformers and some
5 protection, whereas in generation, you have very
6 complicated machines. With hydro, you have to deal
7 with water supply, control, and all that sort of issue,
8 so it's really around the complexity of generation
9 versus, say, a distribution company.

10 A. MR. OSLER: I would certainly add to that,
11 that I think it is at a high level that this type of
12 discussion occurs in the context of tab 8. You have to
13 think and include all the issues that come with
14 planning for generation, dealing with rate matters
15 before regulatory bodies when you have generation, and
16 we can all see how simple hydro makes it. And the
17 issues to do with even dealing with customers, the
18 whole ERA issue arises because we're a generator. So I
19 mean, the levels of complexity that arise because you
20 are a generator, let alone in an isolated situation
21 such as the Yukon, I think at the high level, it makes
22 quite a big difference to a large scale generator
23 compared to a distributor.

24 Q. Does generation risk affect the revenue requirement so
25 that if generation is lost, then there may be loss to

1 service which -- to customers, which will result in
2 less revenue. Is that a fair statement?

3 A. MR. OSLER: We're an isolated grid, so aside
4 from a disruption, you know, a breakdown of facilities
5 in a major crisis, we tend to be able to supply the
6 customers, although we do have interruptions, but we
7 can face risks with respect to what it costs to do
8 that, both in terms of maintenance of the system and
9 dealing with interruptions and everything else. We can
10 also face risk specifically with respect to the fuel
11 mix. As described in this particular application, if
12 we don't achieve the 90 percent LNG that's assumed in
13 the GRA forecast, the company's shareholder will bear
14 the extra burden of the cost for the extra diesel, and
15 that in fact is what happened in the reports for the
16 year 2017. So that's a very small issue, but it's --
17 it's -- it's an example of a risk that flows from the
18 fuel mix.

19 Q. What I'm trying to understand is how does the
20 generation risk impact on the ROE and the premium that
21 YEC is asking for?

22 A. MR. OSLER: At a very simple level, using BCUC
23 as the reference point for the benchmark and the
24 examples from BCUC experience of other utilities, our
25 understanding in simple terms is that you can distill

1 the risks down to the size relative to the benchmark
2 utility and the degree to which it has generation as a
3 major component compared to the benchmark utility,
4 which has none. In that context, YEC qualifies as
5 being both small and remote and isolated, but also as a
6 very large scale amount of generation and that it
7 supplies to itself, relative to, say, the comparator
8 utilities, both the benchmark and the because Fortis
9 Electric, which I always keep calling West Kootenay.

10 Q. Maybe I can rephrase it. Does loss of generation have
11 a direct impact or correlation to -- to revenue?

12 A. MR. MOLLARD: Well, I'm -- yes. I mean, it will
13 affect profitability to the extent that -- not so much
14 on the revenue side. As my colleague said, we have
15 generation, we plan our generation so that we're able
16 to continue service under a variety of conditions.
17 That said, if there's some event, we have to -- we have
18 to fix that issue, whatever it is on the generation
19 side, and that's -- for a generating utility, there's a
20 lot more risk around, as I said, those complicated
21 machines than there is on our poles and wire system.
22 So our loss of generation is a loss of income -- or not
23 a loss of income, but it will affect me financially.

24 Q. All right, thank you.

25 Now, in Exhibit-1 which is the application, and

1 I'm looking at the YEC 2016 resource plan, Volume 1,
2 and it's PDF page 12 of the resource plan.

3 **A. MR. SRECKOVIC: Sorry, can you please repeat? So**
4 **you're looking at chapter 1?**

5 Q. Volume 1, that's what I have, but I don't have the
6 chapter reference. It's PDF page 12 of the document.
7 I know you're at a disadvantage in that you have a
8 paper copy and I don't have the page reference on a
9 paper copy, but I'll maybe I'll give you the context.

10 **A. MR. OSLER: He's got it.**

11 Q. That way -- do you have it?

12 **A. MR. OSLER: Let's make sure that we're talking**
13 **about the same...**

14 Q. The same thing. What I'm referring to is YEC -- the
15 statement: (as read)

16 "YEC's existing resources include YEC's
17 legacy hydroelectric, wind, thermal,
18 diesel and -- sorry -- and natural
19 gasifier generators."

20 **A. MR. SRECKOVIC: Correct.**

21 Q. Okay. And it goes on. Now, my question to you is
22 could you explain, first of all, how -- at a high
23 level, how the N minus one criteria works?

24 **A. MR. SRECKOVIC: Is it -- is there another question**
25 **or -- oh, okay, so...**

1 Q. Yes, sorry, yes. No, that -- well, it's assuming or
2 taking into account that YEC still continues to use the
3 N minus one criteria for its capacity planning.

4 A. MR. SRECKOVIC: Okay. Mr. Chair, I would -- I
5 would like to provide some context to the question. No
6 generation facility is reliable 100 percent, so we --
7 we simply cannot rely on something that will be
8 functioning all the time at the -- at the installed
9 capacity. So to account for lack of reliability, we
10 have to create certain planning reserve. And Yukon
11 Energy uses two criteria to determine planning reserve,
12 and one is called N minus one, the other one is called
13 LOLE.

14 I would like first to talk about the L minus
15 criterion. It is a fairly simple criterion that says
16 that the system has to provide enough capacity to serve
17 the load if the greatest unit in the system fails.
18 That unit could be a power plant, transmission line;
19 the greatest unit. For the particular system in the
20 Yukon, it is either the Aishihik power plant or the
21 Aishihik transmission line. So when we talk -- sorry,
22 I have to stop because I'm confused by comments on the
23 side. Okay. Sorry, it is very complex topic, and --
24 and I'm under oath, and any comments on the side are
25 very destructive. I apologize for that.

1 So the N-1 criterion is criterion that is used to
2 determine capacity reserve, and N-1 means that -- means
3 a failure of the biggest unit in the system. In our
4 particular system, it is either Aishihik transmission
5 line or Aishihik power plant. Would you like me to
6 talk about the other criterion?

7 Q. Yes, please.

8 A. LOLE. The other criterion is called LOLE, and it is
9 also used to provide a capacity reserve. And that
10 criterion takes into account probabilistic reliability
11 of every single unit in the system -- generators,
12 transmission lines too. And -- and it is an
13 industry-wide accepted criterion, and it tells that --
14 that we should provide reliable service all year long,
15 except up to two hours per year.

16 So it's a probabilistic criterion that says we
17 would have enough capacity to provide electricity to
18 all the hours of the year except up to two hours per
19 year. And that criterion is determined by a
20 sophisticated mathematical calculation, and by doing
21 so, we also get capacity reserve.

22 And in our particular system, the N-1 -- the
23 capacity reserve determined by using the N-1 criterion
24 is greater than the capacity reserve determined by the
25 LOLE criterion. And one of the basic engineering

1 principles is to use more conservative criterion, so we
2 use N-1 to determine our capacity reserve in capacity
3 planning.

4 Q. Thank you. Now, in using the N-1 criteria and looking
5 at generation risk, does using or applying the N-1
6 reduce the risk of generation failure or compensate for
7 it? I'm just trying to understand in applying the N-1
8 criteria, what is the result? Is it that it reduces
9 the risk of generation failure, or it compensates for
10 that failure?

11 A. MR. SRECKOVIC: It -- it -- it compensates for --
12 for that failure. Actually, applying -- Mr. Chair,
13 applying that capacity reserve will not reduce our risk
14 of failure. Risk of failure is a function of
15 particular units. Hypothetically speaking, an older
16 unit that is not properly maintained will have a
17 greater frequency of failure. So we use capacity
18 criterion to simply compensate for the failure of -- of
19 units within the system.

20 A. MR. OSLER: But in terms of the overall
21 business, these are requirements for running the
22 system, and they reflect the type of risk profile we've
23 had throughout all the previous GRAs, just to be clear.

24 Q. All right. Now, if we can move to Exhibit B-1, the
25 application, page 3-22, line 18, and that's PDF

1 page 70.

2 **A. MR. OSLER: Which section?**

3 **Q.** It's 322, tab 22, page -- yeah. And then PDF page 70.
4 And then YEC's alternate application, page 3-24,
5 line 4, and that's PDF page 80.

6 **A. MR. OSLER: Sorry, in the alternate**
7 **application, which page again?**

8 **Q.** That was page 3-24, PDF page 80, but it's pages --
9 page 3-24. Now, my question, if you have it --

10 **A. MR. MOLLARD: That document.**

11 **A. MR. OSLER: We've arrived.**

12 **Q.** All right. Now, when looking at those two different
13 pages, can you explain the difference in the levels of
14 new debt financing between the two forecasts? So, for
15 example, in the original GRA at PDF page 70, 2017 is
16 23 -- 23.828, and the alternative on PDF page 80 is
17 23.742, and then for 2018, one -- the original is
18 7.004, and the short-term is -- alternative is 7.246.

19 **A. MR. MOLLARD: We'll have to undertake to**
20 **reconcile those for you.**

21 **Q.** All right, thank you.

22 **UNDERTAKING - TO EXPLAIN THE DIFFERENCE**
23 **IN THE LEVELS OF NEW DEBT FINANCING**
24 **BETWEEN THE TWO FORECASTS FOR 2017 AND**
25 **2018**

1 Q. MS. BENTIVEGNA: Now, again, the application --

2 A. MR. OSLER: Just a sec. Okay. I see now what
3 the difference is, and I think there is a -- there is
4 an IR, but we'll find it. But it's to do with cap --
5 working capital, and there's nothing more much than
6 that. Okay. There is an IR. It's a very small
7 change.

8 Q. All right. And could you tell us which -- it doesn't
9 have to be right now --

10 A. MR. OSLER: No --

11 Q. -- maybe after the break, which IR --

12 A. MR. OSLER: Yeah, yeah.

13 Q. -- and then there's no need for the undertaking.

14 A. MR. OSLER: Yes, that's the undertaking, and
15 we will do that.

16 Q. Okay. Now, again, the application Exhibit B-1,
17 page 8-4, Footnote 10 or PDF page 2-97.

18 Now, it -- there's a reference, as well as in --
19 it's found in BCUC Order G-47-14, which is attached to
20 Exhibit B-5. It's an appendix to YUB-YEC-1-52. That's
21 attachment three, and the PDF page reference for the
22 order, the beginning of the order is 12-21.

23 Now, my question to you is in order G-47-14, is
24 the GCOC Stage 2 decision wherein risk premiums for
25 B.C.'s regulated utilities are established -- has there

1 been a more recent Stage 2 decision released since the
2 GRA was filed?

3 **A. MR. OSLER:** **We're not aware of it.**

4 **Q.** All right, thank you. Now, with respect to the BCUC
5 Order G-47-14, is because Fortis -- sorry, is FortisBC
6 Energy Inc. a performance based utility, as far as
7 you're aware?

8 **A. MR. OSLER:** **As far as we're aware, it**
9 **currently has been or is a performance based utility.**

10 **Q.** All right, thank you. And are performance based
11 regulated utilities considered a higher risk than cost
12 of service regulated utilities?

13 **A. MR. OSLER:** **Our understanding is that the**
14 **generic comment is that performance based regulated**
15 **utilities tend to have a higher risk than cost based**
16 **rate -- regulated utilities. We're also aware that in**
17 **the AEY hearing, there was a concentric IR response**
18 **that said in the case of this particular utility in**
19 **British Columbia, they looked at its history when it**
20 **had been through both within and without performance**
21 **based regulation, and the premium it was given, the 40**
22 **percent over the benchmark, hadn't changed. So it may**
23 **not always apply or there may be other reasons that**
24 **affect the overall conclusion is what we deducted from**
25 **all that.**

1 Q. Now, in your view, does the combination of a fuel price
2 deferral account and a deferral account to mitigate
3 changes in hydrogeneration output due to changes in
4 water levels and the use of the N minus one criteria
5 for determining appropriate levels of generation assets
6 reduce risk?

7 A. MR. OSLER: In the context of the risk premium
8 analysis for the ROE, no.

9 Q. And why is that? Can you please provide some
10 clarification?

11 A. MR. OSLER: They've been a constant in the
12 Yukon Energy's regulation of its risk premium since the
13 mid-1990s, in terms of the DCF, and the N-1 since
14 2005/'6, every GRA we've been through since then, along
15 with the DCF. So that's the primary -- there's nothing
16 changed in this application in that context relative to
17 earlier ones, with the potential exception of the fact
18 that we seem to have a bigger problem under the N-1
19 than we've had in any previous GRA, and therefore it's
20 certainly driving a lot more activity than would have
21 been the case in previous GRAs.

22 Q. Now, just if you can confirm that the BCUC decision
23 G-47-14 is a Stage 2 -- it's a decision from a Stage 2
24 process?

25 A. MR. OSLER: That's our understanding. I'm not

1 **claiming to be in detailed knowledge of the processes,**
2 **but...**

3 Q. All right. And is BCUC -- again your understanding,
4 BCUC decision G-129-16 that that's a Stage 1 process
5 decision?

6 A. **MR. OSLER: Subject to check, yes, I'll accept**
7 **that.**

8 Q. And the bench -- are the benchmark utilities FortisBC
9 Energy, FEI, with a Stage 2 -- is a Stage 2 process
10 currently ongoing?

11 A. **MR. OSLER: I would accept that, subject to**
12 **check.**

13 Q. All right. And in BCUC decision G-75-13, are you aware
14 if that's a Stage 1 process with FEI -- that being
15 Fortis -- FortisBC Energy -- is the benchmark utility
16 upon which G-47-14 is based?

17 A. **MR. OSLER: Sorry, could you just repeat that**
18 **one more time?**

19 Q. Sure, yes. So that decision -- this is still BCUC
20 decision G-75-13, that that was a Stage 1 process which
21 resulted in FEI being the benchmark utility and then
22 that the G-47-14 was the bench -- was the decision on
23 which the -- the -- it's based on the G75 -- G75-13.
24 Basically one is Stage 1, they both deal with FEI, and
25 the other one is a Stage 2.

1 **A. MR. OSLER:** **I'll accept it, subject to check.**

2 **Q.** Thank you. So then in your view, is the G-47-14 the
3 best BCUC benchmark precedent to use in this
4 proceeding, seeing that there isn't a Stage 2 process?

5 **A. MR. OSLER:** **Yes.**

6 **Q.** Or a decision from a Stage 2 -- a more recent Stage 2
7 process, sorry.

8 **A. MR. OSLER:** **Yes.**

9 **Q.** All right, thank you. Now, going solely to decision
10 G-47-14 which is in Appendix A, if anybody wants to
11 follow, of Exhibit B-5, Appendix A, YUB-YEC-1-52, and
12 it's attachment 3. Now, for group one electric
13 utilities of which FortisBC Electric is one, would you
14 agree, subject to check, that among the factors
15 examined by the BCUC, the following were included when
16 it made its determination on capital structure and risk
17 premium: Size, energy competitiveness, energy supply
18 risk, operating risk, credit ratings, short-term risks
19 and deferral accounts, commission cost of capital
20 determinations?

21 **A. MR. OSLER:** **Yes.**

22 **Q.** Thank you. And then in that same decision for group
23 PNG utilities, natural gas, of which PNG West, Pacific
24 Western, Pacific, sorry, Natural Gas/West is one, would
25 you accept, subject to check, that among the factors

1 examined by the BCUC, the following were included when
2 it made its determinations on capital structure and
3 risk premium: Operating size supply risk, customer
4 growth, market demand and throughput risk, competitive
5 position of natural gas, regulatory risk, aboriginal
6 rights, capital structure and equity risk premium,
7 commission, cost of capital determination?

8 **A. MR. OSLER:** Yes. They were different specific
9 utilities and some of those factors applied to some and
10 some not to others, but yes --

11 Q. Thank you.

12 **A. MR. OSLER:** -- for that group of utilities,
13 that group of factors were examined.

14 Q. Thank you. Now, again, in that decision at PDF page of
15 the attachment 1319, the BCUC determined that, and I'll
16 quote: (as read)

17 "The evidence supports the findings
18 that FBC -- Fortis -- FortisBC
19 Electric -- faces additional price
20 competitiveness risk as compared to the
21 benchmark; and in addition, there is
22 some additional risk related to small
23 size. The Panel finds no substantial
24 difference in supply risk as compared
25 to the benchmark, and regarding

1 operating risks, we found there was no
2 basis for which to establish potential
3 impact of any differential in risk."

4 Now, does the potentially comparable electric utility
5 FortisBC Electric have hydrogeneration, as far as you
6 know?

7 **A. MR. OSLER:** **Yes, it has some.**

8 Q. Okay. And does FortisBC Electric have deferral --
9 deferrals for changes in hydrogeneration due to changes
10 in water levels?

11 **A. MR. OSLER:** **I'm not aware of the details. I**
12 **believe they do, but I don't -- I don't have specific**
13 **knowledge on it.**

14 Q. Could you please verify whether it does or the types of
15 accounts, as an undertaking?

16 **A. MR. OSLER:** **Yes.**

17 Q. Thank you.

18 **UNDERTAKING - TO ADVISE AS TO WHETHER**
19 **FORTISBC ELECTRIC HAS DEFERRALS FOR**
20 **CHANGES IN HYDROGENERATION DUE TO**
21 **CHANGES IN WATER LEVELS**

22 Q. MS. BENTIVEGNA: And does FortisBC Electric have
23 deferral, a deferral account for a change in fuel
24 prices from forecast? Again, if you're not aware of
25 if, if you could just verify.

1 **A. MR. OSLER:** **I believe it does because it's**
2 **fairly standard in the industry, yes.**

3 **Q. All right.**

4 **A. MR. OSLER:** **I'll accept it, subject to check.**

5 **Q. Okay. Thank you. And does FortisBC Electric utilize**
6 **an N-1 criteria for capacity planning purposes?**

7 **A. MR. OSLER:** **I'm not aware of it having such a**
8 **specific criteria.**

9 **Q. All right. Can you please verify?**

10 **A. MR. OSLER:** **We'll see if we can verify what**
11 **type of criteria it uses.**

12 **Q. All right. Thank you.**

13 **UNDERTAKING - TO VERIFY AS TO WHETHER**
14 **FORTISBC ELECTRIC UTILIZES AN N-1**
15 **CRITERIA FOR CAPACITY PLANNING PURPOSES**

16 **MS. BENTIVEGNA:** **Sorry, Mr. Chair. I have a note**
17 **here that our court reporter needs a break, so.**

18 **A. MR. OSLER:** **She's not the only one.**

19 **THE CHAIR:** **Okay. So it's 10 after 3, so**
20 **we'll take a 15-minute break.**

21 **(ADJOURNMENT)**

22 **THE CHAIR:** **Please be seated.**

23 **Are we ready to pick up where we left off, or are**
24 **there any preliminary matters right now?**

25 **MR. LANDRY:** **No, sir. I spoke to Board counsel**

1 about the issue we had a -- etcetera. Just didn't have
2 time to really discuss anything. So what we'll do is
3 we'll figure out where appropriate, but we may need a
4 ten-minute break for me to talk to them.

5 THE CHAIR: Well, I'm sure that there'll be
6 another break in us today.

7 All right. We'll pick up.

8 MR. LANDRY: Thank you.

9 Q. MS. BENTIVEGNA: Thank you, Mr. Chair. Now, back
10 to the BCUC decisions. So the BCUC benchmark utility
11 is a gas utility. I believe you agreed that it was.

12 A. MR. OSLER: Yes.

13 Q. All right. And it can be affected by changes in usage
14 by customer, especially declining usage. Is YUC facing
15 a decline in usage of electricity per customer?

16 A. MR. HALL: Mr. Chair, just looking at the
17 data of the last 12 months, there's -- there's some
18 evidence of a small decline in usage by customer.

19 Q. All right. Can you undertake to provide a table of
20 usage per customer by rate class for the years 2012 to
21 2017, please?

22 A. MR. OSLER: We realized when we were talking
23 about -- I thought Table 2.1 in the application
24 provided that information, but -- and in YEC's case,
25 most of the customer -- most of its load goes to

1 wholesale or industrial. Yeah, megawatt hour sales per
2 customer for the years 2013 approved through the
3 forecast years are in Table 2.1 for each of our
4 customer classes.

5 Q. All right. Thank you. Now, in the case of the BCUC
6 benchmark utility, energy price competitiveness was
7 assessed. This was discussed in terms of heating load
8 for residential and commercial customer where there's a
9 choice between natural gas heating and electric
10 heating. Does YEC face a similar risk? Is there a
11 choice?

12 A. MR. MOLLARD: There is no natural gas heating in
13 our service area.

14 Q. Would there be -- would customers have a choice between
15 electric heat and any other kinds of heat?

16 A. MR. MOLLARD: Yes. So in Yukon generally, it's
17 one of three sources; in the main, heating fuel, diesel
18 fuel, propane, and electric.

19 Q. And is it your understanding that now most customers --
20 not just YEC customers -- residential customers, are
21 they using residential -- are they using electrical
22 heat at this point?

23 A. MR. MOLLARD: Anecdotally we understand that --
24 ATCO having the vast majority of the customers in
25 Yukon, we understand that particularly on the Yukon

1 integrated system, most new houses are electric.

2 A. MR. OSLER: Emphasis being on new. We
3 don't -- the statements don't always cover all the
4 existing houses, but the new ones, the information the
5 last several years has been that they have been tending
6 to be using electric.

7 Q. And is there a reason why the new residential is using
8 electric?

9 A. MR. HALL: As far as we understand, the
10 reasons are mostly related to the choices made by
11 contractors during home construction where building a
12 house with baseboard heating is a lot more simple,
13 lower cost for the contractor. They don't have to
14 design for delivery of oil or propane, allow -- they
15 don't have to allow for space for those propane tanks,
16 oil tanks. So as far as we understand, it's a choice
17 that's driven at the construction stage rather than the
18 ultimate homeowner who ends up buying the house.

19 A. MR. MOLLARD: And there has been some recent
20 changes in the regulatory forum around installing
21 heating oil tanks. In residential facilities, the
22 rules around how you do that is -- has resulted in the
23 costs gone up materially, couple hundred, 300 percent
24 on getting -- just getting the oil tank installed. So
25 a lot of customers are just not going to there.

1 **Electric is, as my colleague says, is cheaper and**
2 **easier.**

3 Q. Thank you. Now, can you confirm -- this is subject to
4 check -- that in decision 2017-01, the -- this is now
5 we're talking the Yukon Utilities Board, the Board set
6 the risk premium for AEY relative to the BCUC benchmark
7 utility FortisBC Energy at -- sorry, that is just
8 simply if you can confirm that your understanding, that
9 Board Decision or Board Order 2017-01 Appendix A, that
10 the Board set the risk premium for AEY but relative to
11 BCUC benchmark utility FortisBC Energy?

12 A. MR. OSLER: **Yes, and that they used a premium**
13 **of 25 percent over the benchmark of 8.75 percent that**
14 **applies in because.**

15 Q. All right. Thank you.

16 A. MR. OSLER: **Sorry, 40 basis points.**

17 A. MR. MOLLARD: **25 basis points.**

18 A. MR. OSLER: **25 basis points. Sorry, I'm --**
19 **it's getting late. 25 basis points is what I should**
20 **have said.**

21 Q. All right. Thank you. Now, in its application -- this
22 is the current application -- YEC requested a risk
23 premium based on decisions in Board Order 2005-12 and
24 2009-08, and it looked at comparative factors such as
25 size, financial structure, mix of customer service, and

1 source of energy supply; is this correct?

2 **A. MR. OSLER: Yes.**

3 **Q. Thank you.**

4 **A. And effectively our earlier applications had followed**
5 **the same process that we're using in this application.**

6 **Q. Okay. And just can you confirm that YEC has used the**
7 **FortisBC Electric as its benchmark, as opposed to**
8 **FortisBC Energy Inc., which is the benchmark utility**
9 **for BCUC?**

10 **A. MR. OSLER: Terminology is a bit concerning.**
11 **We followed a process where we said we had more risk**
12 **than FortisBC Electric, and therefore, the ROE**
13 **applicable based on the BCUC benchmark of 8.75 percent**
14 **would be higher than 8.75 percent plus 40 basis points,**
15 **and the question was how much higher?**

16 **Q. All right. Thank you.**

17 Now, if you can turn to B-14 which is the YEC-ERA
18 Part Two application at PDF page 4 -- or page 2-13.
19 Now, in that -- on that page, it talks about the DCF
20 annual reporting actual LNG and diesel unit operations
21 during above average water conditions; that is, when a
22 contribution to a DCF must be made by YEC has occurred
23 in 2016 and is currently expected in the test years.
24 So when that affects -- directly affects YEC's
25 expenses; e.g., since 2016 DCF annual report in

1 Appendix 3-5 for diesel generation and its related fuel
2 costs accounted for 2.293 gigawatt hours of actual
3 generation. The DCF determinations in this instance
4 did not offset actual diesel generation costs incurred
5 by YEC and YEC is not at this time proposing any change
6 to this approach.

7 Now, can you please elaborate on what is meant by
8 the excerpt I just read, that -- that YEC's moving away
9 from the YECSIM model and substituting actual
10 operations in its forecast? I'm just trying to
11 understand what is meant by those statements.

12 **A. MR. OSLER:** Is there a possibility that you're
13 referencing the actual application Section 3-4 --

14 **Q.** Let me just check again.

15 **A. MR. OSLER:** -- rather than Appendix 3-4?
16 Because we went to the new application later on, in
17 December. So if we're -- in the original application,
18 it sounds familiar, and I'm just going back for it, it
19 will be Appendix 3-4?

20 **Q.** Yes. My apologies; I thought it was the -- because
21 some of the questions have been answered, I thought we
22 were --

23 **A. MR. OSLER:** Yeah.

24 **Q.** So yes, it's Exhibit B-1 Appendix 3.4 at pages 3-4 to
25 8, PDF 107.

1 **A. MR. OSLER:** Okay. So...

2 **Q.** It could be -- oh --

3 **A. MR. OSLER:** I -- yeah.

4 **Q.** Sorry, have you -- do you see where I'm referring to?
5 Sorry, it's PDF 106 instead of 107.

6 **A. MR. OSLER:** Okay. So I think we're at
7 page 3.4-7 in what you had read to us. Could you
8 repeat the question, please.

9 **Q.** Yes. So the question is if you can elaborate on what
10 YEC means the statements it makes in this paragraph.

11 **A. MR. OSLER:** And particularly that the DCF
12 determinations in this instance do not offset the
13 actual diesel generation costs incurred?

14 **Q.** Yes. What is not clear from those statements is
15 whether YEC's moving away from the YECSIM model results
16 and substituting actual operations in its forecast?
17 It's just if you can -- what was intended by those
18 statements?

19 **A. MR. OSLER:** So what was intended was to make a
20 point that when you look at the actuals as reported in
21 DCF annual filing reports, where we show actuals as
22 well as long-term average in order to do the DCF
23 determinations for each year, when you look at the
24 actuals, they seem to be higher than you might expect
25 from the level of water levels we've had, which have

1 been fairly good until the latter part of 2'17, fall of
2 2'17 for Mayo, and the loads that we are experiencing
3 which also haven't been all that high until we get into
4 2'17. And so we were saying, we were aware that there
5 seems to be more in the short term, more diesel
6 generation, more thermal generation occurring than you
7 might expect from the analysis, but we weren't
8 modifying anything in this GRA to reflect that.
9 Nothing. So it's a comment en passant, not anything
10 that's having any effect on -- on what we're applying
11 to the Board for, Mr. Chairman, because we thought
12 somebody might observe it, and we wanted to acknowledge
13 that it's there, but we weren't changing anything.

14 So the application is seeking long-term average
15 thermal generation based on long-term average hydro,
16 using the updated -- the YECSIM model, as described;
17 but more importantly, that model is used to determine
18 the table on page -- Table 3.4-1 on page 3.4-17. That
19 table has been used to determine the long-term average
20 thermal in this application and in any subsequent DCF
21 filing until such time as a new table's put before the
22 Board for whatever reason, and the Board's approval is
23 given to a new table.

24 Q. All right. Thank you. Now, if we can go to
25 Exhibit B-8 AEY-YEC-1-3, and it's PDF page 10. And

1 what I'm referring to are these response to paragraphs
2 (e), (f) and (g).

3 Now, in response to this IR, YEC stated on PDF
4 page 10 that: (as read)

5 "As reviewed at length in the last DCF
6 proceeding, the DCF has been established
7 to provide the stability for rates and
8 to reflect the underlying long-term
9 valuation of renewable hydro and wind
10 generation where economic feasibility
11 typically is assessed based on long-term
12 average energy supply. In this context,
13 intergenerational equity is enhanced to
14 the extent that the DCF is able to
15 provide rate stability and price
16 signals, i.e., higher rates during a
17 drought to promote conservation are not
18 even seen as fair or reasonable."

19 Now, can you explain why higher rates during a drought
20 are not seen as fair or reasonable?

21 **A. MR. OSLER:** In summary, the reasons that are
22 given are that we are dealing with a long-term asset
23 with a life of 60 to 100 years. The business decisions
24 based on that asset are based on its overall life and
25 the long-term average expected generation that it will

1 provide that can be used and useful so that the pricing
2 on a long-term basis is consistent with the business
3 decision-making that leads to the selection of such
4 assets and also to the cost of such assets over their
5 life, in terms of the water usage.

6 Secondly, from a consumer perspective and from a
7 practical perspective, when you understand the
8 implications of a drought in terms of how much more
9 you'd have to charge even relative to long-term
10 average, the implications for any rate level
11 requirement would put the word "rate shock" into a new
12 perspective. They're very, very high. And that type
13 of application would also face timing issues. If
14 you're really trying to time it to match the drought,
15 you would have to have pretty good foresight, and you'd
16 have to have speedy hearings.

17 Having done that, if the Board accepted putting
18 the rate up to the maximum to cover that particular
19 year, you might have it go on for three or four years.
20 In fact, in the historical record here, you should
21 reasonably expect a four years or more problem, and you
22 see the same in some other jurisdictions like Manitoba.

23 Our understanding is it would be very unlikely
24 that such a high rate would ever be approved, and the
25 rate would in fact have to be averaged over a longer

1 time period to cover it off. So it wouldn't just be
2 borne by the people during the drought.

3 I guess fourthly or thirdly, whichever's
4 appropriate, if you set lower prices when you had
5 abundance of water and anybody actually reacted to
6 them, they would be reacting by installing extra uses
7 in their facilities, etcetera, for use of electricity,
8 and they would not be very happy when they got
9 confronted with a three, four, five, six, seven, eight,
10 nine, ten, much higher level requirement because there
11 was a drought.

12 So the price signals -- if we were acted on -- be
13 perverse, and I don't think from our understanding of
14 the consumers that they would have a lot of ability to
15 cut back their electricity -- they might have some --
16 when they face the high price during the drought. So
17 all of those factors are summarized in the answer and
18 in other answers to similar questions that were asked
19 elsewhere in the process.

20 Q. And just to follow up on what you said that you felt
21 that the customers would be unable to -- I shouldn't
22 say "unable," but you said that, from what I
23 understood, limited conservation measures would be
24 available to customers during a drought. I was
25 wondering if you could expand on that, what you meant.

1 A. MR. OSLER: What I mean is that consumption of
2 electricity tends to be built in institutionally, and
3 it can be improved upon by conservation measures and
4 improvements in efficiency of use and by not using
5 electricity for certain functions. Those are my
6 understandings of -- of what controls it.

7 Yes, you can regulate the heat in your house, and
8 if the price is too high, you can cut it back a bit.
9 But to think that you're going to do that in response
10 to a short-term price signal the same way you might do
11 some other things in the world is what I'm saying. I
12 don't understand that to be highly practical. And I
13 can see in contrast people being very upset in a
14 political context if they had installed electric use
15 based on lower prices and suddenly got hit with the
16 implication of a drought, no matter how much you warned
17 them in advance. Just like they got very upset about
18 the Faro mine closing and even though the rates were
19 still lower than they might be elsewhere in northern
20 Canada, they were an awful lot higher than the people
21 had been used to seeing them. And, if anything, in my
22 experience living through that, I saw how much people
23 don't like rate instability of that nature.

24 Q. Okay. Thank you. Now, if you can go to Exhibit B-5,
25 YUB-YEC-1-3-6 at PDF 1-58, and it refers to the answer

1 as reviewed in Appendix 3.4 of the application:

2 (as read)

3 "Determinations of LTA thermal
4 requirements at any specific firm grid
5 load are based on simulated assessments
6 of thermal generation needed over each
7 of the 35 water years of record."

8 So that's where it starts, and then there's some bullets
9 under that.

10 **A. MR. OSLER:** Sorry, I found it.

11 **Q.** All right. My question is about that last bullet:
12 (as read)

13 "In the event that actual thermal
14 requirements in above water --
15 above-average water years are higher
16 than estimated in the LTA simulations,
17 the estimated LTA requirements would be
18 increased above the levels currently
19 estimated."

20 You see that bullet. And so is it -- oh, sorry -- I
21 thought you had it.

22 **A. MR. OSLER:** Yes, I have it now.

23 **Q.** All right. All right. Now, is it correct to
24 categorize that last bullet as a manual adjustment to
25 the estimates of the model, or not?

1 A. MR. OSLER: I'm having trouble understanding
2 the context of why we said that, so --

3 Q. Oh.

4 A. MR. OSLER: -- just a minute.

5 I don't -- I don't see why they estimated
6 long-term average would change. It must have been some
7 other thought process going on there, but we could
8 reread this and get back to you, see if we can assist
9 you on it. If something contextually I'm not -- I'm
10 not understanding.

11 Q. All right.

12 A. MR. OSLER: Obviously, your question
13 highlights it.

14 Q. All right. Thank you. Then if you can elaborate any
15 further with an undertaking, that would be great.

16 A. MR. OSLER: I will.

17 Q. Thank you.

18 UNDERTAKING - TO ADVISE AS TO WHETHER
19 IT IS CORRECT TO CATEGORIZE THE LAST
20 BULLET IN YUB-YEC-1-3-6 AT PDF 1-58 AS
21 A MANUAL ADJUSTMENT TO THE ESTIMATES OF
22 THE MODEL

23 Q. MS. BENTIVEGNA: Now, still again Exhibit B-5, now
24 this time, it's YUB-YEC-1-43(a), and it's PDF
25 pages 1-73, 1-74.

1 **A. MR. OSLER:** **We have it.**

2 **Q.** Okay. So the quote I'm looking -- or the response I'm
3 looking at is: (as read)

4 "As reviewed in response to
5 YUB-YEC-1-40, assumptions are required
6 to determine the fuel mix ratio
7 applicable to transfers into and out of
8 the DC app..."

9 And then it goes on.

10 **A. MR. OSLER:** **Yeah.**

11 **Q.** Now, is this practice set out in the response, does it
12 effectively smooth the impact of fuel mix for DCF
13 purposes?

14 **A. MR. OSLER:** **Yes.**

15 **Q.** And so does smoothing effectively shift forecast risk
16 for fuel mix from YEC to customers?

17 **A. MR. OSLER:** **No.**

18 **Q.** Okay. Can you explain why it doesn't?

19 **A. MR. OSLER:** **Yes.**

20 **Q.** All right. Go ahead.

21 **A. MR. OSLER:** **If anything, it does the reverse,**
22 **the methodology that's proposed in this application.**
23 **So that the point that we start from is that there's an**
24 **application for a long-term average approach, and that**
25 **the fuel mix provided in the application is 90/10; 90**

1 percent LNG, 10 percent diesel. The objective is to
2 try and make sure that the final cost at the end of the
3 year is as close as possible to that same mix that was
4 used for the forecast and therefore was used to set the
5 prices for the customers. The methodology proposed is
6 intended to do that, but if in fact it's not
7 possible -- and the only way in which it would be not
8 possible is because you have burned so much diesel that
9 you can't get it down to 10 percent of the long-term
10 average with your final payments into the DCF -- then a
11 slightly higher diesel percentage will occur, and that
12 will go to the bottom line of the company, it won't
13 affect anybody's rates.

14 Q. Thank you.

15 A. MR. OSLER: And that in fact happened in the
16 2017 filing of the DCF annual report.

17 Q. All right. Thank you. Now, in that same IR, the
18 response to question B identifies issues if the
19 recommended approach is not taken, the issue being the
20 LNG share of a transfer exceeding a hundred percent.
21 Is this a modelling issue that could be avoided if
22 actual amounts were utilized?

23 A. MR. OSLER: Sorry, could you just repeat the
24 question again?

25 Q. Sure. So in looking at the response --

1 **A. MR. OSLER: Right.**

2 **Q. -- to Part B, my question is whether the approach --**
3 **the recommended approach, is it a modelling issue that**
4 **could be avoided if the actual amounts were utilized,**
5 **as opposed to the forecast?**

6 **A. MR. OSLER: We're talking about the LNG**
7 **share --**

8 **Q. Yes.**

9 **A. MR. OSLER: -- issue only?**

10 **Q. Yes.**

11 **A. MR. OSLER: No, it's not -- it's not a**
12 **modelling issue in terms of this GRA; it's entirely --**
13 **we don't claim that we picked 90/10 because of**
14 **sophisticated statistical analysis; we explained that.**
15 **And therefore it has nothing do with the modelling**
16 **issue; it's to do with the proposed approach to be**
17 **consistent with the GRA, as applied for.**

18 **Q. All right. Thank you. Now, if we can go to**
19 **Exhibit B-14, YEC, this is Part Two of the ERA**
20 **application, page 2-10, PDF page 38.**

21 **A. MR. OSLER: And the page number was 2-10?**

22 **Q. Yes, 2-10.**

23 **A. MR. OSLER: Thank you.**

24 **Q. And I'm looking at the sentence that starts: (as read)**
25 **"Based on the above section and Figure**

1 2-1, review of interrelationships,
2 Yukon Energy is not aware of any
3 applicable alternative to the
4 requirement for a thermal cost or
5 contingency fund account similar to the
6 DCF to ensure that ratepayers bear the
7 risks related to water variability and
8 to provide a fund for dealing with
9 thermal cost variability due to water
10 variability."

11 Now, are you aware of an alternative where the risk is
12 either borne by the utility or jointly between the
13 utility and the customer?

14 **A. MR. OSLER:** No.

15 **Q.** Are you aware of an alternative where the risk is borne
16 by the utility in other jurisdictions?

17 **A. MR. OSLER:** No.

18 **Q.** Now, on page 2-11, PDF page 39, it states: (as read)

19 "Actions to remove any thermal cost or
20 contingency fund account would require
21 Yukon Energy to bear the risks related
22 to water variability and would
23 significantly change the utility's
24 overall risk profile."

25 Do you see that?

1 **A. MR. OSLER:** **Yes.**

2 **Q.** Now, can you explain, if this risk is continued -- if
3 the risk continues to be borne by customers, how is
4 this reflected in YEC's recommended return on equity?
5 Or how should it be reflected on YEC's return on
6 equity?

7 **A. MR. OSLER:** **I want to make sure I understand**
8 **the question's assumption. The assumption is that the**
9 **risk continues to be borne by the customers?**

10 **Q.** Yes. If -- in the quote above it's stated that if it
11 were to be borne by the utility, that should be
12 reflected -- would significantly change the utility's
13 overall risk profile, then if it continues to be borne
14 by customers, should this also be -- should this fact
15 be reflected in YEC's recommended return on equity?

16 **A. MR. OSLER:** **We'll, we've understood that's been**
17 **the case, that it is borne by the customers since the**
18 **first regulatory hearing of YEC, so that in the context**
19 **of risk premiums established to date, I can't see any**
20 **basis for a change.**

21 If the world had been totally different and YEC
22 didn't bear all these risks and the customers didn't
23 and then we came in with a new setup where the customer
24 suddenly bore the risks, there would be a good case to
25 have a discussion about a change in the risk profile

1 for YEC. But in this situation, given the history, I
2 don't understand how there could be a basis for change.

3 Q. So what you're saying is that you don't see -- because
4 of the status quo, you don't see a change in risk for
5 YEC unless there was -- unless it bore the risk of the
6 water variability. Am I understanding you correctly?

7 A. Yes.

8 Q. Now, do either of the utilities that YEC references in
9 its ROE benchmark, FortisBC Electric or PNG West, have
10 a similar contingency fund? And I remember from your
11 earlier response you thought yes, but you were going to
12 check. Is that correct?

13 A. MR. OSLER: Yes, and the reference in the
14 earlier one was to a deferral account, but in the
15 context of how we're using the words, a deferral
16 account would be equivalent to the use of the word
17 contingency fund here in the sense that it shifts the
18 costs into an account where it ultimately gets borne by
19 the customers rather than by the utility.

20 Q. All right. So then you will, when responding --

21 A. MR. OSLER: That's one of the things we're
22 checking, yes.

23 Q. Right. And if you, since we are at the tail end, or
24 close to the tail end of this hearing, if you could in
25 that undertaking, if it's something different, if they

1 do not have, if you can explain what they do have and
2 how it's different from what YEC has in respect to a
3 contingency or deferral.

4 A. MR. OSLER: We'll -- we'll do the best we can,
5 yes.

6 Q. Thank you.

7 A. MR. OSLER: And I just for the record at this
8 point make the point that we're talking about a
9 deferral account that shifts the risk of a variance,
10 the cost implications of a variance from what was
11 forecast to what had actually happened with respect to
12 thermal costs, shifts it to a deferral account and
13 eventually back to the customers. That isn't
14 necessarily the same thing as building a diesel
15 contingency fund that's also designed to smooth rates.
16 As we all know with Rider Fs and things like that, you
17 can have a deferral account that pays out the money
18 relatively quickly and doesn't necessarily smooth
19 rates.

20 So we're talking specifically here about who bears
21 the risk, not necessarily whether we end up smoothing
22 rates or not.

23 Q. All right. Thank you. Now, would YEC have a view on
24 if the Board, what would be its views if the Board
25 ruled that YEC must make an application showing to the

1 Board that withdrawals from the DCF are required due
2 solely to changes in hydrogeneration due to water,
3 changing water levels, does YEC have any comment on
4 that?

5 **A. MR. MOLLARD:** I'm sorry, Ms. Bentivegna, I
6 didn't catch the front end of that question. Could
7 you.

8 **MS. BENTIVEGNA:** Sure.

9 **A. MR. MOLLARD:** Could you repeat it, please.

10 **Q.** Sure, it's if the Board determined that YEC had to
11 apply showing to the Board that withdrawals from the
12 DCF, so basically an application to withdraw from the
13 DCF due to changes in hydrogeneration resulting from
14 changes in water levels, so how would YEC view such --
15 having to make such an application?

16 **A. MR. MOLLARD:** Short answer yes. We do have a
17 process now where we put our annual reports for the DCF
18 in front of the -- of the Board now, so it wouldn't be
19 any big hardship for us.

20 **Q.** All right. And if you can confirm in that report, you
21 show whether there've been -- whether to date have
22 there been withdrawals needed from the DCF since let's
23 say 2015 due to changes in water levels?

24 **A. MR. MOLLARD:** We have had no withdrawals from
25 the fund since that time.

1 **A. MR. OSLER:** But you're right that if such a
2 situation existed and it would show it, and your
3 question, ultimately we're saying everything that
4 happens with the DCF requires the Board's approval. If
5 the Board wanted some crosschecks even during the
6 fiscal year, I'll let Mr. Mollard comment on behalf of
7 YEC.

8 **A. MR. MOLLARD:** Ultimately we need final numbers
9 to make the determination, so it's -- typically follows
10 an annual cycle. But yeah, we would have no issue with
11 that.

12 **Q.** Now, would YEC have any comments on if the Board were
13 to decide that the DCF could only be replenished
14 through a rider at whatever cents per kilowatt hour
15 until the fund was replenished, would YEC take -- have
16 issue with that? So rather than replenishing or using
17 the methodology now, if it could only replenish it
18 through rider, the DCF fund?

19 **A. MR. MOLLARD:** I -- I want to be careful about
20 that. So the implication then is that there is no DCF,
21 there is no long-term average, is that -- was that what
22 the Board would be taking the position, then?

23 **Q.** It's more that if there was no long-term average and so
24 the fund needed to be replenished, therefore there
25 would need to be an application for a rider for money

1 to be put into the fund?

2 A. MR. MOLLARD: I mean I have -- I have -- YEC has
3 no particular issue with -- with -- with taking
4 direction on riders. I think we've been pretty clear
5 on the record about our position with respect to
6 long-term average, though.

7 A. MR. OSLER: We did answer questions from the
8 Board staff on riders, including YUB Round 2, Number 1
9 and other ones. And the concerns that were expressed
10 with respect to mechanics are trying to think through
11 all the implications for how we share risks and how we
12 separate out the risks for water versus volume of load.
13 Certainly there could be all sorts of ways to do it,
14 but just saying -- asking us what we might think about
15 how a rider might be better than what we have right now
16 without having specific riders on the table leaves one
17 a little bit nervous that we might not think through
18 all the implications. We've lived with this one for
19 awhile, and we're starting to understand it.

20 Q. All right. Thank you. Now, again Exhibit B-19,
21 YUB-YEC-2-9, responses to Questions (d) and (e) or
22 parts of the question at PDF page 400?

23 A. MR. OSLER: Which subparts again?

24 Q. It was (d) and (e)?

25 A. MR. OSLER: Have thank you.

1 Q. Or sorry (d) and (c), all right. Sorry, if I can just
2 refer you to (e), so it's on that PDF page 400, YEC
3 states (as read):

4 "The basic premise that ratepayers bear
5 the costs, risks related to hydro is
6 applicable for all Canadian utilities
7 that have hydrogeneration, and in each
8 instance measures are adopted that
9 attempt to enhance long-term rate
10 stability."

11 And then it goes on about (as read):

12 "However, all these utilities do not
13 have a defined contingency fund that
14 passes risk of variation in water to
15 customers."

16 And it goes on.

17 Now, my question to you is if a utility does not
18 have a defined contingency fund that passes risk of
19 variation in water to customers in such a case, how is
20 that ratepayer -- does that ratepayer or how is it that
21 ratepayers bear the risk?

22 A. MR. OSLER: I think the main point that the
23 answer (e) goes through various jurisdictions is that
24 in various ways, ratepayers end up bearing the risk
25 rather than utility. But the ways seem to vary a great

1 deal, and they seem to reflect the circumstances and
2 context of each utility. So you have to almost do a
3 separate study to understand each one of them.

4 I'll give you an example of Manitoba Hydro, it is
5 not a rate-based regulated utility but since the late
6 1980s, it has -- its rates require approval of the
7 Board, of the Utilities Board in almost exactly the
8 same way that Yukon Energy's do here. Through a set of
9 history, the -- there's no clear equity financing of
10 that utility in the same way we would talk about it
11 here. When I first appeared before that Board in the
12 late '80s, the equity level was probably around five
13 percent, and it had been there for a long time.

14 The utility came forward in the context of its
15 initial rate regulation and proposed that there be an
16 increase in rates in order to provide protection to
17 customers against the risk of drought and that this
18 would go into what they called then a reserve fund, but
19 it essentially was their equity. And that fund got
20 built up, and the Utility Board agreed that a minimum
21 protection against a severe drought of five years would
22 be a minimum requirement that they would allow rates to
23 be increased to allow that to be built up, on the
24 understanding that it was there to protect ratepayers
25 against the risks, particularly of water. So that's

1 not called a contingency fund, it's called --
2 accountants called it equity and retained earnings, but
3 it serves very much the same function as long as the
4 Utility Board insists that, when a drought comes along,
5 that fund is used to protect the customers, and it has
6 in many cases. So there are various ways in which
7 people say I'd like to have some money to protect the
8 customer against the risks; there are other cases where
9 people refuse to allow the utility to package the
10 benefit of higher water levels by any means of a higher
11 retained earnings. They control the -- who gets the
12 benefit of that. Either the utility gets it or the
13 customers get it through rate reductions or a reserve.
14 So there are various techniques which are discussed, to
15 the extent we could discuss them quickly, in that
16 answer.

17 Q. Mr. Osler, when -- when you refer in your answer to
18 equity and retained earnings, one would assume that
19 that is to the benefit of shareholders.

20 A. MR. OSLER: Yeah.

21 Q. And so how is it, though, that then you say it protects
22 ratepayers in case of a drought?

23 A. MR. OSLER: And I deliberately used that
24 because it has been the subject of a recent Manitoba
25 Public Utility Board ruling, and subsequent to that a

1 large number of -- just before that but after the
2 hearing the board of directors of the enterprise sort
3 of vanished. It is very difficult for someone who's
4 not used to that particular regulatory regime to come
5 into it and say, Well, I don't understand this; this is
6 for the retained earnings, aren't they for the benefit
7 of the shareholders? But if they had been around in
8 the late 1980s and early 1990s and they had been
9 through the regulatory process that established the
10 principles of allowing that equity to grow, they would
11 have learned about the commitments that this wasn't for
12 the benefit of the government, who owned the company,
13 it was for the benefit of the shareholders, and it was
14 going to be using for that purpose, and therefore you
15 should not treat it as though it is equity, you should
16 treat it more like it's a reserve for the benefit of
17 the customers and the protection of the utility's
18 overall financial structure, but in no way should it be
19 viewed and dividendable out to the government or the
20 benefit of the government.

21 So it's an example you can only understand, it
22 seems, if you were in Manitoba during the late 1980s
23 and you were the Utility Board or you were in the
24 middle of those proceedings. That's what I mean by
25 contextually specific; you have to understand how each

1 jurisdiction dealt with this problem, and often they're
2 quite different, even as bizarre as the one I just
3 described.

4 Q. And so from your experience, then, and your review of
5 the Canadian jurisdictions, is it that -- is there a
6 reserve hydro -- aware of there's hydrogeneration, is
7 there a reserve for what we can, to shorthand, drought
8 in most of these, whatever the title of the fund; is
9 that what you're saying?

10 A. MR. OSLER: There are deferral accounts that
11 sometimes defer forever. There are the methods in
12 Manitoba which have been the subject of a big
13 controversy but I think are being protected. Northwest
14 Territories has a reserve that it didn't have any
15 effect on the drought because nobody ever built it up
16 big enough, and the government had to bail out the
17 utility in the drought that they just went through. So
18 there are varieties like that. How many of them are
19 successful, how many of them are applying the type of
20 rules we're trying to develop here, I don't think there
21 are very many. I think that what has been developed in
22 Yukon, because it is small and vulnerable and has a
23 very high risk relating to some other utilities with
24 respect to water, I think what's been developed here is
25 perhaps more advanced in some respects than some of the

1 other jurisdictions I'm looking at. The risk here is
2 -- relative to rate base, is very high compared to a
3 lot of the other utilities we're talking about in terms
4 of the effect of what a drought could do.

5 Q. Now, I'm referring to -- it's still Exhibit B-19,
6 YUB-YEC-2-9(e). There's a footnote number 9, and it's
7 PDF page 405. And it refers to a BCUC Order
8 No. G-96-04, October 29th, 2004. And do you accept
9 that, subject to check, that when because Hydro
10 prepares its hydrogeneration forecast, that at the time
11 of a forecast, it uses snow pack, when available, and
12 reservoir levels at that time and then normal
13 precipitation?

14 A. MR. OSLER: In the context of this particular
15 beginning of the heritage fund account, they certainly
16 did that, which is what that 2004 reference is to, and
17 my understanding is they still pay attention to
18 reservoir level. I can't pretend that I understand
19 exactly how they do it, because I haven't been involved
20 in the proceedings, but relative to running a
21 simulation account, the way we would do here, no, they
22 tend to take account of a reservoir level and things
23 like that, and then they do long-term flows.

24 The overall risk to their revenue requirement,
25 they make the point in their application, is relatively

1 small compared to some other risks such as their load
2 risks or their export risks, so I get the impression
3 overall this is not a big driver of risk to the utility
4 and therefore presumably isn't a big problem for the
5 ratepayers.

6 Q. All right. Thank you. Now still with Exhibit B-19,
7 YUB-YEC-2-13, PDF page 4-29, and it was -- the question
8 was: (as read)

9 "Would a GRA proceeding due to
10 unfavourable water conditions be seen
11 as a positive if it sends a correct
12 pricing signal to ratepayers to modify
13 their consumption?"

14 And YEC responded that: (as read)

15 No, short-term pricing to reflect
16 changing water conditions would not
17 provide appropriate price signals
18 relevant to the Yukon integrated system
19 energy supplied with long-term
20 hydrogeneration assets..."

21 and it goes on. And then: (as read)

22 "The short-term approach for rate
23 setting would also not reflect the
24 business cases approach adopted for
25 evaluation of new renewable hydro

1 energy generation options."

2 Now, would it be better if ratepayers modified their
3 consumption behaviour during periods of drought? I now
4 we've talked about this, but maybe if you want to add
5 anything to it.

6 **A. MR. MOLLARD:** I think, Mr. Chair, you know,
7 generally if we ever found ourselves in a drought
8 situation, we would obviously do what we could to
9 affect end user consumption to the extent they were
10 able to, in the short term, turn off their lights, turn
11 down their hot tubs, whatever, but I think Mr. Osler's
12 previous testimony stands. You know, they have limited
13 options to what levers they can pull to affect that
14 consumption. They're not going to buy new appliances
15 or re-insulate their houses based on a drought.

16 **Q.** Thank you. Now, with again Exhibit B-19, the reference
17 being YUB-YEC-2-3(a), Attachment 2, and in that
18 decision, YEC provided an excerpt from Decision 19 --
19 this is Board Decision 1992-01. And when looking at
20 the decision in its totality, the Board took notice of
21 Section 4.2.1, no cost capital. Of that decision,
22 decision pages 19-21 of that decision, it's PDF pages
23 of the Decision 24 to 21. Now, I believe there was,
24 just in case you didn't -- you weren't familiar with
25 it, I gave your counsel an aid to cross. I don't know

1 if you want -- if you need to refresh yourself?

2 **A. MR. OSLER:** I've reviewed the aid to cross, as
3 well as the -- some of those earlier decisions.

4 **Q.** All right. And so in the decision, the Board stated
5 that it considered (as read):

6 "The full amount of 2,200 and --
7 2,250,000 should apply to YEC's rate
8 base. Accordingly, for the purpose of
9 this decision, the Board has removed
10 the amount of 2,250,000 from YEC's
11 midyear capital and deducted the amount
12 from the midyear rate base."

13 Now, what would be the impact to YEC if the Board were
14 to provide a similar ruling for YEC with respect to the
15 DCF if you can give it to me or if you need to think
16 about it?

17 **A. MR. OSLER:** Well, no, effectively that
18 particular decision took the 2,250,000 that YEC had
19 brought to the Board in the first hearing as a
20 contingency amount set up to deal mostly with low
21 water, and in the context of people evolving that into
22 something more sophisticated like the low water reserve
23 fund, that amount was dedicated, taken away from being
24 called YEC's to becoming called "customer account."

25 Then we had a debate, there was a debate that's

1 reflected in the order, and the Board made a decision
2 to apply that amount against the rate base, so the rate
3 base is effectively reduced by the amount of that
4 contribution.

5 I'll just cut to the chase, then come back. There
6 was some arguments about that for a few hearings, and
7 when the DCF was established in the 1996 proceeding, if
8 you look at the settlement agreement that all the
9 parties agreed to, one of the statements in there was
10 that the DCF would not affect rate base; in other
11 words, the effect of this decision we're talking about
12 was reversed in how we set up the DCF. It would no
13 longer have an effect on rate base.

14 What we had learned in between years was wait a
15 minute, we're mixing things here. If we start taking a
16 fund that's meant to go up and down depending on water
17 and we start using it to pretend we're financing rate
18 base, we're going to have something that varies
19 independently rate base. It could go up, it could go
20 down, it could become negative, it could do this. This
21 is not appropriate.

22 So we had discussions that led to the decision --
23 the settlement agreement in the new fund approach in
24 1996.

25 So I would assume if we were only talking about \$2

1 million there and we're talking 8 million or
2 potentially larger funds here, the same concerns would
3 be raised as to the appropriateness of using that type
4 of fund for the purpose of rate base financing.

5 And, you know, from there, we go into other
6 dimensions. It would reduce the rate, technically it
7 applied \$8 million is the current fund, and applied
8 against rate base, it would reduce the rate base that's
9 in the application by \$8 million and would reduce
10 proportionately the financing costs that we include in
11 return.

12 Q. Thank you. Now, would you accept, subject to check,
13 that since 1989, YEC's 1989/1990 GRA to June 2018 in
14 that 29.5 year interval, there were three or four
15 reduction years to the either low water fund or low
16 water reserve fund, DCF due solely to low water
17 reasons?

18 A. MR. OSLER: Yeah, I would accept that subject
19 to check, and the big thing that happened was the Faro
20 mine closed the same time we had a big drought, but we
21 still had to call upon the reserve even during that
22 situation that showed that you, even during -- without
23 the mine, we would need the reserve a little bit in a
24 severe drought.

25 Q. All right. Now, we were talking or Mr. Osler, in

1 response to questions earlier in the hearing, talking
2 about the ERA calculation and how it -- how it
3 operates, that it can also, for example, for the 2012
4 year, where there was payment into these DCF and then
5 the ERA was -- once the DCF amount was accepted of
6 501,000, then the AEY amount, that same amount was
7 payable, the ERA provision in Rate Schedule 42. Now,
8 my question is can you give us an example, a numerical
9 example, and it doesn't have to be right now, it can be
10 an undertaking, as to how it would work on if the ERA
11 works in the opposite direction, so when would YEC pay
12 back or rebate or however you want to call it, make a
13 payment to AEY in relation to the ERA account?

14 **A. MR. OSLER:** We'll undertake to get you an
15 example, but as I said earlier, that was how it got
16 started.

17 **Q.** All right. That would be very useful.

18 **UNDERTAKING - TO PROVIDE AN EXAMPLE AS**
19 **TO HOW IT WOULD WORK IF THE ERA WORKS**
20 **IN THE OPPOSITE DIRECTION, SO WHEN**
21 **WOULD YEC PAY BACK OR REBATE, MAKE A**
22 **PAYMENT TO AEY IN RELATION TO THE ERA**
23 **ACCOUNT**

24 **MS. BENTIVEGNA:** And those are my questions, panel.
25 There was one section that we were waiting to see what

1 the response, and I believe it was the policy on the --
2 it's for the feasibility studies. It was the policy,
3 and I think it was because you were going to confirm
4 certain things about the amortizations. But if that
5 can't be done now, that's fine. It can be done, I
6 mean, when you bring back the information.

7 So those are my questions. Thank you, panel.

8 Thank you, Mr. Chair.

9 THE CHAIR: Okay. Mr. Landry, do you have any
10 anything for your panel?

11 MR. LANDRY: Redirect before any Panel
12 questions?

13 THE CHAIR: Oh, yes, I guess we should have
14 some Panel questions, see if there's anyone on the
15 Panel that has anything?

16 No, there are no Panel questions.

17 MR. LANDRY: Okay. I have a number of
18 questions in redirect, Mr. Chair. All, just so we
19 orient ourself, all in relation to questions that Board
20 counsel put to the panel, so not previous
21 cross-examination. And I'll start -- I'll start near
22 the end, and I guess this would be directed to
23 Mr. Osler, and it was the issue that Board counsel just
24 raised about perhaps having the DCF as an offset to
25 rate base.

1 **MR. LANDRY RE-EXAMINES THE PANEL:**

2 Q. Sir, if I give you a different assumption that the DCF
3 is at a negative \$8 million position, what would that
4 do to rate base if that was the approach that you were
5 taking?

6 A. **MR. OSLER:** It would cause trouble. I mean
7 that's the swings are what cause trouble to start with,
8 but if you're instead of financing rate base, you're a
9 liability against rate base, nobody's going to be very
10 happy. You're now using the rate base financing method
11 in theory to finance the -- the DCF, and that's not the
12 way in which it was ever intended to be done.

13 Q. And given your experience in the Yukon and in other
14 proceedings, would you recommend that to this Board?

15 A. **MR. OSLER:** No, Mr. Chairman.

16 Q. Sir, I want to talk a little bit about the Manitoba
17 situation because of the ambiguity, well, I would say
18 ambiguity in the word equity. Sir, you've been
19 familiar with Manitoba as you've indicated for a number
20 of years?

21 A. **MR. OSLER:** Yes.

22 Q. Sir, is there any doubt in your mind that the regulator
23 believes that that equity, so-called equity, is for the
24 benefit of ratepayers and not the shareholder?

25 A. **MR. OSLER:** I always have difficulty stating

1 what is in a regulator's mind, but the regulators'
2 results and their rulings have been consistent with the
3 interpretation that it's there for the benefit of the
4 ratepayers and not -- certainly not for dividending out
5 to shareholders.

6 Q. Sir, there was a number of question that were asked of
7 you in relation to the recent Fortis decisions in --
8 before the BCUC, and a number of very specific items
9 from those decisions. Given the very specific items
10 that were put to you, sir, would that have any impact
11 on your recommendation or YEC's recommendation to this
12 Board as to how to set the rate of return here?

13 A. MR. OSLER: No. The approach that has been
14 recommended by YEC and that I certainly have supported
15 has been to keep it as simple as possible, use the BCUC
16 approach, and focus on the key variables and don't
17 bring in expertise, specialists on that matter. So the
18 details of -- of the different rulings in British
19 Columbia have never been the focus of our attention as
20 much as trying to just summarize them and use them in
21 the same way we've used them in the earlier hearings
22 since the mid-2000s -- you know, 2007, '08 I think is
23 the first time we started doing this. Maybe 2005 even.
24 So it does not affect the view that this seems to be an
25 approach the Board has adopted, keeping it simple, YEC

1 has supported it. Mr. Mollard may have; I'm just an
2 advisor.

3 **A. MR. MOLLARD:** Yeah, no, I reiterate those
4 comments, that we very specifically in 2005 adopted a
5 simplified approach that would save us having to get an
6 additional consultant involved in the -- in the
7 proceeding for really no benefit.

8 **Q.** Okay. There were a number of questions that you'll
9 recall, the panel, relating to generator risk. And
10 maybe I'll start with you, Mr. Osler, and if you'd like
11 to hand it to others in the panel, please do, but does
12 the long-term nature of the assets that a generator
13 such as YEC, for example, hydro facilities, and the
14 cost of building those facilities, and I guess I'll
15 even add and the customer base; i.e., that they supply
16 industrials, do any of those three things impact the
17 risk of the utility?

18 **A. MR. OSLER:** Yes. And it ends up, in the Yukon
19 Territory in particular, with isolated grid and
20 variable industrial loads. Since Yukon Energy's been
21 created, we've seen the degree of extra stress and
22 variability that occurs for the generating utility,
23 which is the Crown utility. It's capital intensive, it
24 gets to have aged assets that are expensive to deal
25 with, it has requirements to keep trying to develop new

1 renewables rather than just settling back and accepting
2 thermal because it's low risk to the utility compared
3 to investing in things. So from my point of view, it
4 certainly demonstrates why the simple assessment of
5 extra risk from having generating assets and generating
6 responsibilities would be recognized by the BCUC.

7 Mr. Mollard can probably talk at more length and
8 more specificity as to the nature of the risk from a
9 financial chief executive officer point of view.

10 A. MR. MOLLARD: Yeah, so just to add to that, I
11 mean, particularly with hydro assets, they have an
12 exceedingly long life, anywhere to 70 to a hundred
13 years, depending on the configuration, and the utility
14 needs to demonstrate that those assets are used and
15 useful at every -- every proceeding along the way. And
16 I would contrast that with a distribution utility. You
17 know, they could -- distribution utility's going to
18 have their poles and wires and they may be used to a
19 greater or lesser degree, but they're always going to
20 be useful in their configuration. There is a scenario
21 in generation situation, especially when you're
22 isolated and you can't sell your surplus, we're a
23 commodity based economic, we have a very cyclical
24 activity, and we actually had this situation occur in
25 the '80s when the federal government started building

1 wheel number 4, the day they put the shovel in the
2 ground, the Faro mine closed and that asset had no
3 value. And it very much affected the transaction of
4 our acquisition of it, but it goes to highlight that
5 aspect of it where the variations in load can basically
6 wipe out the usefulness of a key expensive asset.

7 A. MR. OSLER: I just make one final comment:
8 The debt instruments that we devised to do the transfer
9 of the assets to Yukon flexible debt certainly reduced
10 that risk to this utility, and we've used similar --
11 having learned that, we've used similar approaches two
12 more times; Mayo/Dawson and again on Mayo B, but I
13 don't think that that mitigates against the point that
14 relative to the distribution utility in the
15 territory -- it's been said over and over again in
16 various proceedings -- this utility has more risk, and
17 trying to quantify that is what we're trying to do.
18 But the fact that it's more than the distribution
19 utility I haven't seen disputed by anybody that's ever
20 appeared before this Board working for either one of
21 the two utilities.

22 Q. Sir, there were a number of questions, I believe it was
23 to you, Mr. Osler, but could also have been to
24 Mr. Mollard, about the short-term variability and using
25 of the short-term forecast, and I'm just -- and you

1 mentioned some difficulties with that. I wonder if we
2 could just go to 2017 and look at the difference
3 between the short-term forecast and the short-term
4 actuals. How does that make out?

5 **A. MR. OSLER:** In summary, the short-term
6 forecast we used in the GRA additional filing and again
7 in the December Part Two filing didn't change, and it
8 was around a million, one gigawatt hour, 1.1 or
9 something.

10 **Q.** Of thermal.

11 **A. MR. OSLER:** Of thermal, sorry. And I think
12 the actual thermal was slightly over 13 gigawatt hours,
13 if I'm not mistaken. So it was quite variable. The
14 load went up a lot. The long-term average went from 14
15 to 27 gigawatt hours, if I'm not mistaken. So some of
16 that would be due to load, potentially, but we also had
17 the lower water at Mayo, which company tells me had a
18 lot to do with things, but I also suspect that the
19 short-term model that we were using for the GRA
20 information basis wouldn't be accepted by the operators
21 of the companies. I think they think they probably
22 needed more thermal in the first place than we were
23 saying. So that forecast certainly was wrong by a
24 large number.

25 **Q.** If I -- just so it's clear on the record, it went from

1 1 gigawatt hour forecast to 13 gigawatt hours actual?

2 Is that what I understood?

3 **A. MR. OSLER:** **In rounded numbers, yes.**

4 **Q.** Mr. Mollard, there was a number of questions that were
5 asked of you regarding the vegetation management. Do
6 you recall that?

7 **A. MR. MOLLARD:** **Yes.**

8 **Q.** And Board counsel asked you a number of questions on
9 the numbers for 2017, 2018 and also in relation to the
10 deferral that was directed by the Board. And I think
11 there was a question that basically said, well, what
12 would happen if the deferral was continued? I guess
13 what I'd like you to comment on, sir, is what is the
14 corporation's view about the possibility that that
15 deferral will be continued into the future, including
16 the two test years?

17 **A. MR. MOLLARD:** **That would be a concern for us,**
18 **Mr. Chairman. The -- the issue of deferrals is always**
19 **something we paid close attention to. Many people in**
20 **this room will be familiar with the because Hydro**
21 **situation where they have a number of deferrals**
22 **accounts running into the billions of dollars, and**
23 **they're struggling very much with -- with how to recoup**
24 **those costs from ratepayers.**

25 **So just conceptually, we're not against deferral**

1 accounts, but we're very nervous about them getting --
2 getting very large and hard to manage. At some point
3 they become so big it's very difficult to get them into
4 rates, so we would like to see some reasonable path
5 forward for -- for reducing those deferrals where
6 possible.

7 MR. LANDRY: Thank you, sir.

8 And, Mr. Chair, those are all my questions in
9 redirect.

10 THE CHAIR: So I understand that
11 Ms. Bentivegna and yourself are going to have a little
12 discussion over the point --

13 MR. LANDRY: Actually, I was going to have a
14 discussion. It'll be a lot easier now that -- I'm
15 assuming the panel is released?

16 THE CHAIR: I think if you're done with them,
17 the panel is done.

18 MR. LANDRY: Okay.

19 THE CHAIR: Yes.

20 MR. LANDRY: If the panel's released, it was a
21 conversation I wanted to have with the panel about the
22 actuals-versus-forecast issue. I'm looking at the
23 court reporter. I think she probably wouldn't mind a
24 break, so maybe we can take a break while we switch
25 panels.

1 THE CHAIR: Yes.

2 MR. LANDRY: And 10 or 15 minutes, and I'll
3 speak to -- and hopefully I'll have something. I can't
4 guarantee it, but hopefully I'll have something when I
5 come back from the break.

6 THE CHAIR: Okay. So let's do that.

7 So you gentlemen are free to go, and the City can
8 seat their panel, and we'll take 15, thank you.

9 (PANEL STANDS DOWN)

10 (ADJOURNMENT)

11 THE CHAIR: Please be seated. And so perhaps
12 we can begin, Mr. Landry, you might have something for
13 us.

14 MR. LANDRY: No further undertakings yet, but
15 just on the point that I was discussing earlier,
16 obviously from Yukon Energy's position is that we
17 believe the forecast basis and the rate base approach
18 that we've taken over the years is the most appropriate
19 ways to do it and that one has to be very careful about
20 bringing actuals into that. And so I think --
21 especially when you've been through a process like we
22 have where the forecast has been tested for a lengthy
23 period of time.

24 What we're going to try to do, Mr. Chair, is
25 respond as best we can to the undertakings as they are

1 on the record, including on the issue of actuals. And
2 we will do it as expeditiously as we can I think is the
3 best way to put it. As you can imagine, it might be a
4 bit of an exercise, so we'll see. But we'll -- I think
5 we'll leave it on the record that we will respond to
6 the undertakings.

7 THE CHAIR: Okay. Thank you for that. So we
8 can proceed to the City of Whitehorse.

9 MR. KING: Yeah, thank you, sir.

10 THE CHAIR: If you want to begin?

11 MR. KING: I have to say on behalf of the
12 City, we are very pleased to now have the opportunity
13 to put our witness forward. It's been an interesting
14 three days.

15 So it is my pleasure to introduce the witness for
16 the City of Whitehorse, Mr. Russ Bell. Mr. Bell has
17 prepared the evidence -- pardon me.

18 THE CHAIR: Go ahead, sorry.

19 MR. KING: No, that's fine. Mr. Bell
20 prepared the evidence of the City of Whitehorse as
21 marked at Exhibit C3-10. His responses to the
22 information requests from the Board are marked as
23 Exhibit 3 -- C3-9, and his responses to the information
24 requests from Utilities Consumer Group are marked as
25 Exhibit C3-8. Mr. Bell is a chartered professional

1 accountant, and his experience and training are
2 outlined in Appendix 1 of his evidence at C3-10.

3 So I would ask that Mr. Bell be sworn at this
4 time, please?

5 THE CHAIR: Thank you.

6

7 **RUSS BELL** (For the City of Whitehorse), sworn

8 **MR. KING EXAMINES THE PANEL:**

9 THE CHAIR: All right. Go ahead, as soon as
10 she's ready.

11 Q. Thank you, Mr. Chair. I'm going to propose that we
12 first address the formal adoption of Mr. Bell's
13 evidence, and then I'm going to ask him to briefly
14 inform the Board of his training and experience
15 relevant to his evidence today.

16 So Mr. Bell, I'd previously referenced three
17 exhibits, C3-10, C3-9 and C3-8 consisting of your
18 evidence on behalf of the City of Whitehorse and of
19 course the responses to information requested from the
20 Board and UCG. Were those documents prepared by you or
21 under your direction and control?

22 A. Yes, they were.

23 Q. Thank you. Do you have any corrections to make to any
24 of this material?

25 A. No, I do not.

1 Q. Thank you. Are these exhibits true and accurate to the
2 best of your knowledge and belief?

3 A. Yes, they are.

4 Q. And do you adopt those exhibits as your evidence on
5 behalf on behalf of the City in these proceedings?

6 A. I do.

7 Q. Thank you. Now, before I turn you over to my friends
8 for examination, as I understand, this is only your
9 second time before the Board or appearing before the
10 Board, and as I understand that your first time was
11 sometime ago, I'm going to ask if you could outline for
12 the Board's benefit your qualifications, training, and
13 experience relevant to the testimony that you will be
14 providing today?

15 A. Certainly. I am a chartered professional accountant
16 with over 35 years' experience in the utility industry.
17 I hold a bachelor of commerce degree from the
18 University of Alberta in 1981 and received my CMA
19 designation, which is a predecessor to the chartered
20 professional accountant designation, in 1983.

21 I worked in progressively responsible roles in
22 accounting finance and information technology in the
23 ATCO Group first with Canadian Western Natural Gas, the
24 Southern Alberta Gas Distribution and Transmission
25 Company and predecessor to ATCO Gas (South) and ATCO

1 Pipeline (South).

2 Then I moved on to be the controller of ATCO
3 I-Tek, the ATCO IT affiliate, and after 20 years with
4 ATCO, I went out on my own and have been representing
5 customers ever since.

6 I have appeared on 35 different occasions before
7 the Alberta Utilities Commission and its predecessor
8 the Alberta Energy and Utilities Board, before the
9 British Columbia Utilities Commission, the Yukon
10 Utilities Board, and the Northwest Territories Public
11 Utilities Board. In addition, I have filed evidence on
12 14 different times in proceedings that did not go to
13 oral hearing. I have represented customers in areas of
14 forecasting cost allocation rate design, as well as
15 most recently in the numerous PB -- performance-based
16 regulation or PBR proceedings in Alberta over the last
17 five years.

18 Q. Now, thank you, Mr. Bell.

19 MR. KING: Mr. Chair, Mr. Bell is available
20 for questions.

21 THE CHAIR: So Mr. Maissan, do you have any
22 questions for --

23 MR. MAISSAN: I do not.

24 THE CHAIR: Mr. Rondeau, UCG is not here, so
25 Mr. Landry?

1 MR. LANDRY: Can I have a moment, sir?

2 THE CHAIR: Yes.

3 MR. LANDRY: Mr. Chair, as you know, Yukon
4 Energy filed fairly extensive rebuttal evidence in
5 response to the City of Whitehorse. Given the length
6 of time that we've been -- we've been at this, we think
7 we can deal with issues that arise out of Mr. Bell's
8 evidence by way of argument, so -- and we will do that.
9 And so at the moment, we have no questions.

10 THE CHAIR: All right. I think Ms. Bentivegna
11 will have some questions.

12 MS. BENTIVEGNA: Yes, thank you, Mr. Chair.

13 **MS. BENTIVEGNA QUESTIONS THE WITNESS:**

14 Q. Afternoon, Mr. Bell.

15 A. **Good afternoon, ma'am.**

16 Q. If I can -- if you can turn up YUB-CW-1-2(a), PDF
17 page 3, and that's Exhibit C-39.

18 MR. KING: What was the PDF number again?

19 Q. MS. BENTIVEGNA: That was 3.

20 A. **That was YUB-1-2?**

21 Q. Yes.

22 A. **2(a).**

23 Q. Exactly.

24 A. **Regarding disruptive technology.**

25 Q. Right. So I see you have it, and just to let you know

1 where I am, the portion I'm referring to, it says:
2 (as read)

3 "CW has advised that it noticed
4 increasing use of micro generation in
5 the City and in particular the City
6 itself has solar panels in a new
7 operation building. As these
8 technologies become robust and cost
9 effective, Mr. Bell believes that
10 unregulated organizations may offer
11 energy solutions that will be
12 complimentary to or in competition with
13 the need for regulated services."

14 Now, does Y -- does CW see disruptive technology as a
15 live issue for this GRA period?

16 **A. I'm sorry, can you repeat the question?**

17 **Q.** Sure, whether the City sees these type of technologies
18 that you're generally referring to -- and I believe
19 you've called them disruptive technologies -- do you
20 believe that these are live issues in this particular
21 GRA, in the test period?

22 **A. I do. I can't speak for the City directly. I, as an**
23 **independent consultant do believe that the potential**
24 **for change that's coming is a live issue in this**
25 **proceeding, and so is something that should be**

1 addressed and recognized in any long-term plans or
2 forecasts that are contemplated when they drive the
3 need for future investment.

4 Q. My question was more specific, and I should have maybe
5 phrased it, but do you see any of these technologies
6 impacting the revenue requirement for 2017 and 2018,
7 the test period?

8 A. Given that we're halfway through 2018, I expect the
9 answer is no, not in a material way. My concern is
10 more that there is -- my concern is that the resource
11 plan was structured in a way that doesn't appear to
12 have recognized this over the longer term, and my
13 concern is over the longer term.

14 Q. All right. So you say your concern is in the longer
15 term, but you used the term that you don't believe in a
16 material way it will impact the revenue requirement for
17 this test period, but do you believe there'll be any
18 impact? And if so, please explain.

19 A. Well, I can't say there won't be some solar panels or
20 somebody who tries to go off grid in the next six
21 months. I can't say that won't happen; I also can't
22 say it will happen. That's why I said in a material
23 way. I can't give an assurance one way or the other
24 with absolute certainty. I don't expect it would be
25 anything that would affect the forecasts, no.

1 Q. All right. Thank you. Now, if you can -- same
2 exhibit, if you look at PDF page 4, which is part (b)
3 of the question. It's YUB-CW-1-2(b).

4 A. Yes, I have that.

5 Q. Now, it states Mr. Bell was at the recent CAMPUT
6 conference where there was much discussion of
7 innovation and how that may be fostered, and it goes
8 on. And could you please explain to the Board what
9 your expertise is regarding disruptive technologies, or
10 if you have any?

11 A. Well, in terms of my awareness and knowledge of the
12 industry and seeing how things are evolving and
13 changing in the electric industry with the growth of
14 solar panels on the maturation of solar panels with the
15 fact that battery storage is maturing and becoming more
16 robust and reliable, wind turbines; there's all of
17 these technologies that are being developed and
18 evolving that will impact how we use energy. Am I a
19 practitioner in that? No, but I'm a person who's
20 worked in this industry for 35 years, I have seen
21 changes come and go, and over the last three to five
22 years it's become apparent to anybody who's working in
23 this industry that the world may well change in our
24 lifetime, and so it's time that the utilities started
25 to anticipate that in some of their planning, and that

1 **is my point.**

2 Q. But you wouldn't have any information or advice on
3 potential for the Board on any specific potential
4 impacts of these technologies from your experience?

5 A. No, no. And I think at this point -- first of all, the
6 answer to your question is no, I don't have specific
7 technology where I would say this is coming, but I
8 don't think that is the point. The point is if you are
9 at all wise and looking at this world, it's a
10 reasonable assumption that something's coming. Just
11 because I can't tell you exactly what it is does not
12 mean that a wise person doesn't consider that, a wise
13 business person wouldn't look at the horizon and say I
14 had better plan wisely because things may well change.

15 Q. All right. Now, same exhibit, if you look at
16 YUB-CW-1-7(a).

17 A. You said 7(a)?

18 Q. Yes, it's PDF page 10.

19 A. Yes, I'm there.

20 Q. All right. Now there, it states -- or CW states:
21 (as read)

22 "In saying that inclusion of the DCF as
23 currently structured should result in a
24 lower risk and lower ROE, Mr. Bell is
25 recognizing that the pervasive nature

1 of the DCF results in lower risk to
2 YEC. Mr. Bell suggests that the
3 previously approved ROE of 8.25 should
4 be adequate."

5 Now, can you state whether City of Whitehorse is
6 recommending any adjustment to YEC's ROE that is being
7 applied for?

8 A. I hadn't -- this was in response to a question from the
9 Board where I was giving my opinion on a return given
10 the nature of the account. My main concern with the
11 DCF was based on a comment in evidence that the DCF
12 included operational impacts, and that is why in the IR
13 response I had listed the three criteria that are used
14 elsewhere for determining what qualifies for a deferral
15 account, that being that it is beyond management
16 control, not reasonably forecastable, and also of
17 significant financial impact. When a deferral account
18 starts to include things that are operational
19 decisions, that sounds a lot like in management
20 control, and so my original evidence was simply to
21 tighten up the rules around what's in the DCF. And so
22 this would be my recommendation if the DCF is left as
23 worded as it was in the evidence that I read.

24 Q. And is your understanding any different of the DCF
25 after listening to the testimony during this hearing?

1 **A. It is a little different. I still am not certain that**
2 **when I heard early on in the proceeding that the**
3 **funding is based on long-term averages, and then all**
4 **variances are put in or taken out of the account, that**
5 **to me sounds like all variances, including operational**
6 **decisions. So that doesn't sound to me like it has**
7 **solved my problem.**

8 **Q. All right. Thank you. Now, if you go to Part B of**
9 **that question, there it states (as read):**

10 "Yes, so yes, to the extent that YEC
11 has -- {sorry, I'm just going to get my
12 reading glasses} -- has more costs as a
13 percentage of revenue requirements,
14 subject to deferral treatment. Then
15 the utilities considered in the BCUC
16 cost of capital proceeding, the Yukon
17 risk premium must be reduced."

18 Now, you did not state your -- any amount that it should
19 be reduced by. Do you have any recommendation about
20 YEC's risk, the reduction to YEC's risk premium?

21 **A. No, I hadn't looked at that. My -- my comment was in**
22 **response to the question which said (as read):**

23 "Does CWC other risks --"

24 Sorry, is that the right question? Yes. (as read):

25 "Does CWC other risks that may be --"

1 that may impact the analysis of the
2 risk premium for YEC versus the BCUC
3 benchmark utility."

4 And so my answer is yes, if there's a larger proportion
5 of YEC's revenue that is subject to deferral accounts in
6 totality than the benchmark utility, then a bigger
7 portion of the variability and cost is borne by
8 customers, not shareholders. I haven't done the
9 analysis of the benchmark utilities to see, you know,
10 what the magnitude of any difference would be, but to
11 me, that would be the basis of any determination is if
12 the percentage of revenue subject to referral account is
13 significantly larger in YEC, then it is less risky
14 because customers are taking on a bigger portion of that
15 risk.

16 Q. Thank you. Now, in Part C to that same question,
17 question asked CW to (as read):

18 "...list and comment on all of YEC's
19 requests or existing deferral accounts
20 and whether or not the existence of
21 those deferral accounts as risk
22 mitigation mechanism warrant further
23 adjustment to YEC's ROE premium."

24 And Mr. Bell, I believe you stated (as read):

25 "Each of the listed deferral accounts

1 transfer risk from the utility to its
2 customers. Mr. Bell is aware that
3 utilities typically have RFID and
4 regulatory hearing deferral accounts.
5 In Mr. Bell's experience, prices which
6 are largely beyond management control
7 are subject to deferral accounts, but
8 volumes consumed are not."

9 Can you comment on whether the existence of YEC's
10 deferral accounts warrant further adjustment to YEC's
11 ROE premium because the -- your response does not seem
12 to address that point?

13 **A.** Again, I go back to the last question, it really looks
14 at whether YEC's costs subject to deferral treatment as
15 a percentage of its total revenue requirement are
16 larger or smaller than the benchmark utility. If they
17 are in totality, then yes, the return -- the risk
18 premium should be reduced to the benchmark utility
19 because customers are bearing the bigger portion of
20 that risk.

21 **Q.** But just so that I understand, you haven't done --

22 **A.** No, I haven't --

23 **Q.** -- any analysis?

24 **A.** I haven't done that analysis, and I wouldn't be in a
25 position to say "this is what the number should be" and

1 **have any basis to defend it.**

2 Q. All right. Thank you.

3 Now, if you can turn to Exhibit C-3-10 regarding
4 the sales forecast on PDF page 9 of --

5 A. **C-3-10 is my evidence?**

6 Q. Yes.

7 A. **And PDF page 9, document page 8?**

8 Q. Yes.

9 A. **Yes, I'm there.**

10 Q. All right. Now there's a table that compares resource
11 plans to actual data?

12 A. **Yes.**

13 Q. You see that? And so I have some questions on that
14 table. If you can explain this table and what
15 conclusions you're drawing based on the data that's in
16 the table?

17 A. **In my previous experiences, I was responsible for**
18 **preparing business plans and strategic plans for**
19 **Canadian Western Natural Gas. As part of the planning**
20 **cycle, there was always a loop back to see how what we**
21 **projected matched against what really happened. And**
22 **not to say we would have to adopt everything that**
23 **changed, but to understand if it impacted the forecast**
24 **and the projections.**

25 So I applied that same logic here to look at how

1 the resource plan forecasts of load compared to what
2 actually happened. If there was a consistent or
3 growing bias, it might indicate an issue with how the
4 load forecast was derived, and so that was my
5 observation.

6 Q. And so are you drawing any conclusions or -- from the
7 table or is it just the comparison, offering the
8 information?

9 A. Well, if you go to the last sentence above Q14 in my
10 evidence, I say (as read):

11 "This casts further doubt on the
12 voracity of the sales forecast and the
13 resource plan. The pattern -- this
14 pattern of divergence in load in
15 similar to what was experienced in the
16 last resource plan."

17 And so what I'm saying is there seems to be a pattern
18 where the variance grows, and one has to ask why and if
19 there shouldn't be further analysis on the load
20 forecasts to ensure that the load forecasts more
21 accurately reflect what happens so that any protected
22 capital might be better based on reality.

23 Q. Thank you. Now, would you have any views about what
24 the possible causes for such divergence might be?

25 A. Well, in reading the rebuttal evidence and reading the

1 evidence, I'm aware that it has a lot to do with a
2 large load coming on or not coming on.

3 Q. All right. And then what factors do you believe should
4 be taken into account to minimize this divergence,
5 knowing now that or knowing that its load -- load --
6 the amount of load coming on or coming off?

7 A. Well, there's a number of things that could be done
8 looking back over time, perhaps a probabilistic
9 assessment of the likelihood of things happening that
10 are projected could help with that or just a
11 recognition as you're building the plan, there has been
12 a historical bias on one side are some things that come
13 to mind.

14 Q. All right. Now, in Exhibit B-21?

15 A. I'm sorry, B-21?

16 Q. Yes, this is the rebuttal evidence, YEC's rebuttal
17 evidence, in Appendix A, PDF page 17?

18 A. So bear with me, sorry, you said PDF 17?

19 Q. Yeah.

20 A. 17 of 83?

21 Q. Yes, yeah, and it would be 17 to 19 where --

22 A. Yes, I have that.

23 Q. Right? And YEC has responded or commented on your
24 table, the comparisons by stating that (as read):

25 "It's an apple to oranges approach,"

1 and providing updated numbers, as well as stating that
2 (as read):

3 "CW did not consider the impact of
4 a -- impact of a particular rate class
5 can have, specifically industrial load
6 changes being major source of
7 variance."

8 Now, can you comment on YEC's observation about the
9 comparisons being apples to oranges and do you agree or
10 disagree that you did not take into account the
11 industrial load or changes of a major source?

12 **A. Well...**

13 **Q. Being a major source of variance.**

14 **A. I was aware of the industrial load being a major source**
15 **of the variance. When I look at the total load, I see**
16 **the pattern is not dissimilar to what I found; it grows**
17 **in the latter years. So I mean, the pattern is the**
18 **same -- or similar. Not the same magnitude but the**
19 **same pattern. I did recognize that it's industrial**
20 **load, but the system is built out to serve total load,**
21 **so the fact that it's one over the other still**
22 **influences investment decision in which plant to build.**

23 **Q. Thank you. Now, in -- in your exhibit -- your**
24 **evidence, Exhibit C-3-10, and it's a question and**
25 **answer 17, PDF pages 11 -- or 11 of 15.**

1 A. One moment. So that's my evidence, you said PDF
2 page 11?

3 Q. Yes; it's regarding vegetation management.

4 A. PDF page 11, I don't have that -- oh, there it is, PDF
5 page 10 it starts. Yes, I'm there.

6 Q. All right. In that question and answer 17, you state
7 that you've been involved in rate applications in
8 Alberta for the last 15 years, each electric utility
9 that you've reviewed has a policy for vegetation
10 management: (as read)

11 "While I would not recommend that
12 another utility's policy be adopted
13 without any review, I would have
14 expected that other utility policies
15 and practices should have been used to
16 develop the YEC policy."

17 And then you go on to state that: (as read)

18 "As the introduction of the vegetation
19 management policy appears to be the
20 driver for the largest cost increase in
21 O&M, I would expect that YEC would do
22 more -- a more robust assessment of
23 what other utilities do. As such, I
24 suggest that YEC be directed to compare
25 its vegetation management policy to

1 that of other utilities and provide a
2 report in the compliance filing. If it
3 proves that YEC's vegetation management
4 policy drives costs that are higher
5 than required, the budget for
6 vegetation management should be
7 reduced."

8 Now, your evidence indicates that, in essence, you've
9 been reviewing electric vegetation management policies
10 for 15 years. That's correct, isn't it?

11 **A. Not every year. When I've been involved in an electric**
12 **general tariff application, I have looked at the**
13 **policies, yes.**

14 **Q.** Okay. And now, given your experience in this area, do
15 you have any specific areas of concern or a specific
16 section within the vegetation management policy itself
17 that can be found Exhibit B-1, which is the
18 application -- YEC's application, Appendix 3.1, PDF
19 pages 75 to 79 -- you don't have to go there, but I'm
20 just giving you the reference -- that you would like to
21 see YEC address or implement as part of its proposed
22 vegetation management policy?

23 **A. No, I don't have specific concerns; that wasn't my**
24 **point. We specifically asked YEC what it had done to**
25 **gather other information, and I quote that IR response**

1 in my evidence where, to paraphrase, it was done by YEC
2 staff, and they -- YEC did some cursory reviews of
3 other policies. And so my -- my evidence was in
4 response to YEC stating that it seemed to me that they
5 hadn't looked with any rigor at other policies. In
6 rebuttal, they did then come out with evidence that
7 there are other studies and other reports they looked
8 at, one of which is not on the record, and all of which
9 appear somewhat dated. But, you know, my evidence was
10 in response to a direct question that was directly
11 answered that they hadn't looked at it.

12 Q. However, you did review their management policy;
13 correct?

14 A. There -- yes.

15 Q. But you don't have any advice or recommendations based
16 on your review and your experience?

17 A. No, that wasn't -- no.

18 Q. All right. Thank you. Now, as I read in your
19 evidence, you point to that if the vegetation
20 management policy is in a compliance filing it weren't
21 to show that the costs for the proposed vegetation
22 management policies are higher than required, that the
23 Board should reduce costs. Now, can you expand on the
24 timing of your recommendation for a reduction to YEC's
25 budget? If the Board were to approve the policy as

1 proposed by YEC and YEC spends the money on vegetation
2 management over the next, say, two years, when and how
3 does a cost cut come into play?

4 A. I mean given where we're at and the fact that this
5 Board will receive argument and reply by I'm going to
6 say the end of July I believe is the schedule, or early
7 August, and then it will take time to deliberate and
8 render a decision, any compliance filing will be after
9 the test period is complete, so at this point, it's
10 difficult to say, you know, costs should be cut
11 specifically when I have heard that the utility will be
12 providing 2017 actual costs anyways. You know, we're a
13 bit late to ask for forecast cuts. But I think as an
14 ongoing go-forward basis, it is prudent to say that the
15 utility should provide evidence on its policy how it
16 compares to what other utilities in similar areas with
17 similar geography and topography face.

18 Q. And what should the Board look at if it were to adopt
19 your recommendation about asking in the compliance
20 filing regarding vegetation policies in other
21 jurisdictions and determining what would be the causal
22 link between the proposed policy and higher vegetation
23 management costs? That wasn't -- can you clarify? It
24 wasn't clear as to how the Board would determine what
25 would be higher, the causal link between --

1 A. Well, the causal link would be the type of vegetation
2 management done. I've heard today that environmental
3 concern -- or organizations have denied the use of
4 herbicides. That's a way to reduce vegetation
5 management costs. So that would be a factor that would
6 enter into it that might not allow for reductions that
7 might be seen elsewhere. In my review of vegetation
8 management policies, it is not uncommon to have a
9 multi-tiered approach where you use mechanical at some
10 level for a few years until it's somewhat under control
11 and then use herbicide to maintain it thereafter.

12 Now, within this jurisdiction, from what I've
13 heard today on the stand, that that might not be an
14 option, but it would still be useful to understand how
15 this utility's policy lines up with others that are in
16 a similar area.

17 MS. BENTIVEGNA: All right. Thank you. Those are
18 my questions, thank you, Mr. Bell. Those are my
19 questions, Mr. Chair.

20 THE CHAIR: Do the panel have any questions?
21 Would you like to have any redirect?

22 MR. KING: Yes, thank you, Mr. Chair. Just
23 let me take a moment to look at my notes if I may.

24 THE CHAIR: Sure.

25 MR. KING: Just one, sir.

1 Q. Mr. Bell, my friend referred you to Exhibit B-21, which
2 was the YEC rebuttal, at Appendix A, PDF page 17, and
3 asked you some questions, and part of the question was
4 if you had any comment with respect to the suggestion
5 that your comparison, referring to the table you had
6 prepared in your evidence, was apples to oranges, and
7 I'm not sure that I heard an actual answer to that
8 question. I wonder if you can elaborate on that.

9 A. Yes, I can.

10 Q. Thank you.

11 A. No, I don't think they are apples to oranges
12 comparisons. They're comparisons of data that show the
13 same trend whether you look at it one way or another.

14 MR. KING: Mr. Chair, those are my questions,
15 thank you.

16 THE CHAIR: Thank you. The witness is done
17 now I think.

18 THE WITNESS: Thank you, sir.

19 (WITNESS STANDS DOWN)

20 THE CHAIR: Thank you very much. So I think
21 that brings us to the end of this proceeding.

22 So we have a number of undertakings; I'm not going
23 to summarize them. We're going to pick them up from
24 the transcript, and I think there's -- they're all
25 coming I think from YEC. One of them will be to

1 Mr. Maissan I think and the rest to us. Is there still
2 one for Mr. Maissan maybe?

3 MS. BENTIVEGNA: Yes, the one that was agreed was
4 July 3rd, if I remember correctly, so there's that
5 undertaking, and then I believe, yes, the others were
6 to the Board today.

7 THE CHAIR: Right. Mr. Maissan's nodding his
8 head. So, anyway, they'll be a summary of them.

9 So the next items in front of us, we are looking
10 for written argument on July 12th and then a reply
11 argument on July 26th. Now, we're -- couple of these
12 undertakings involve some substantive materials, and if
13 that requires maybe these dates to be changed, then
14 we'll have to deal with that at that time. But you'll
15 make a submission at that time when you provide that
16 stuff I think.

17 MR. LANDRY: I think one of the things I'd like
18 to do, Mr. Chair, is that there are quite a few what
19 I'll call substantive, in terms of bit of work,
20 undertakings that I think we have to sort of get
21 together as a team and just figure out how quickly we
22 can do that. I think we'll just leave it on the record
23 for now, and we'll come back to you with that. We'll
24 get the undertakings done as quickly as possible.

25 If we see that it's I think what you're

1 anticipating, if it might be pushing that out a bit,
2 we'll come back to the Board, and I'll contact Board
3 counsel first, and then we can figure out how we go
4 there.

5 THE CHAIR: Right. I think that would be
6 useful. If you see the time stretching out, you could
7 give our counsel a heads-up, even if those things
8 aren't the ready yet. And then we can adjust the
9 scheduled as needed to get the best information
10 possible.

11 MR. LANDRY: Okay. I'll do that.

12 THE CHAIR: All right. Does anyone else have
13 any other matters for the Board before we close this
14 hearing? All right this hearing is now closed. Thank
15 you all for coming.

16 (PROCEEDINGS ADJOURNED AT 5:47 P.M. P.M.)

17 _____

18 PROCEEDINGS CONCLUDED

19 _____

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1 Certificate of Transcript

2
3 We, the undersigned, hereby certify that the foregoing
4 pages 432 to 673 are a complete and accurate transcript of
5 the proceedings taken down by us in shorthand and
6 transcribed from our shorthand notes to the best of our
7 skill and ability.

8 Dated at the City of Whitehorse, Province of Alberta, on
9 June 28, 2018.

10
11
12 "D. DiPaolo"

13 D. DiPaolo, CSR(A)
14 Official Court Reporter

15
16 "A. Jones"

17 A. Jones, CSR(A)
18 Official Court Reporter

- I N D E X -

June 28, 2018

Volume 3

The following is a listing of exhibits, undertakings and objections as interpreted by the Court Reporter.

The transcript is the official record, and the index is provided as a courtesy only. It is recommended that the reader refer to the appropriate transcript pages to ensure completeness and accuracy.

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UNDERTAKING - TO PROVIDE THE COST OF THE 453
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