

**IN THE MATTER OF the *Public Utilities Act*
Revised Statutes of Yukon 2002, c 186 as amended**

**An Application by Yukon Electrical Company Limited and Yukon
Energy for a 2009 Joint Phase II Rate Application**

P R O C E E D I N G S

October 6, 2010
Volume 2B
1:00 P.M. Session

E. MOLLARD, C. OSLER, P. BOWMAN

1 Proceedings taken at Hearing, The Yukon Utilities Board, held
2 at The Yukon College, Whitehorse, Yukon.

3 -----

4 Volume 2B

5 October 6, 2010

6 B. McLennan Chair
7 R. Hancock Member
8 R. Laking Member
9 J. Woodland Member

10 G. Bentivegna, Ms. Board Counsel
11 S. Smart, Ms. Executive Secretary
12 R. Clarke, Esq.) Board Staff
13 D. Ward, Esq.)

14 L.G. Keough, Esq. For The Yukon Electrical
15 Company Ltd.
16 J. Landry, Esq. For The Yukon Energy
17 Corporation
18 M. Buonaguro, Esq. For the Utilities Consumers'
19 Group
20 K. Kellgren, Ms. For the City of Whitehorse
21 J. Maissan, Esq. For Leading Edge Projects
22 Ltd.
23 S.J. Lea Dormer, CSR(A) Court Reporter
24 D.J. Harmata, CSR(A)

25 -----
26 **E. MOLLARD, C. OSLER, P. BOWMAN** (For YEC), previously sworn:

27 THE CHAIR: So, Ms. Kellgren, you can start
28 where you left off. Thanks.

29 MS. KELLGREN: Thank you, Mr. Chair.

30 THE CHAIR: Unless there were any
31 preliminary matters. Sorry.

32 MR. LANDRY: The only thing would be to
33 report, Mr. Chair, that the remaining undertakings were
34 YECL-related undertakings, so they're planning to give that
35

14:02

1 when their panel is up.

2 THE CHAIR: Thank you.

3 MS. KELLGREN CROSS-EXAMINES THE PANEL:

4 Q. MS. KELLGREN: So first, can everyone hear me?

5 Oh, there we are. And with the benefit of having an
6 opportunity to review what we've accomplished over lunch, I'd
7 like to come back to just a couple of things. One, if you
8 can refer to YEC's response to CW-YEC/YECL-19, page 3 of 6 of
9 that response. It's 19(a).

10 THE CHAIR: Page which?

14:03

11 MS. KELLGREN: It's 3 of 6, and it's 19(a).

12 THE CHAIR: Is it CW?

13 Q. MS. KELLGREN: Yes, Mr. Chair.

14 And there YEC states:

15 Arguably the OIC has consistently
16 interpreted only permits rate designs
17 as regards runoff rates that are no
18 lower than 100 percent incremental
19 diesel and potentially somewhat higher.
20 However, in developing Option A with
21 runoff rates at 80 percent of approved
22 short-term diesel generation costs,
23 utilities took into account the need
24 for some transitional considerations,
25 which is consistent with normal rate

14:03

1 design principles.

2 That's correct?

3 **A. MR. OSLER:** Yes.

4 Q. Okay. So if I understand your earlier testimony -- and
5 I believe, Mr. Osler, you spoke to this -- is that -- and I
6 just want to the clarify this, is that it's not that you feel
7 a runoff rate that's less than 100 percent as necessarily not
8 in conformance with the OICs? Because I heard you say
9 earlier that, you know, the current rates obviously weren't
10 not in compliance with the OICs, because the Board has to
11 approve rates that are in accordance with them. And I'm
12 assuming that Option A or Option C, if accepted, you would
13 submit would not not be in accordance with the OICs. I'm
14 getting into double negatives here. Is that correct?

14:04

15 Perhaps you could expound upon that, because it seems from
16 this response that somehow anything less than 100 percent is
17 inconsistent with the OICs, but I heard you earlier say that
18 your assumption would be the Board wouldn't approve rates
19 that are not in conformance with the OIC. Can you clarify?

20 **A. MR. OSLER:** Okay. Yes.

14:05

21 Q. Thank you.

22 **A. MR. OSLER:** First of all, just to deal with
23 existing rates, the Board acts when it makes a decision. The
24 existing rates were decided in 1996. The Board acted
25 completely within their range and everything we're talking

1 about at that time, and the Board hasn't had the opportunity
2 to do anything different since then.

3 Q. Understood.

4 A. MR. OSLER: So the key issue is what is the
5 directive to the Board when it now reviews. In writing this
6 particular response, it was acknowledged that somebody might
7 advance an argument, arguably, and that's what -- you know,
8 it doesn't mean that it's necessarily the view of the YEC.

9 Q. Okay.

10 A. MR. OSLER: Somebody might advance the
11 position that the Order-in-Council and the vast history would
12 drive the Board to need, under the direction, to move to
13 100 percent or more, because the Board's report back in '92
14 certainly recommended the broader words economy and
15 efficiency in the context of at least short-term incremental
16 costs and maybe more. There might be some capital or other
17 things and had asked the companies to look into that. So
18 that's the basis for the statement "arguably." Okay?

14:05

19 But it's saying that the companies together
20 both agree at least on this much: That the Board is, in our
21 view -- and others may disagree -- has the ability to do a
22 transitional approach on the argument that it is paying
23 attention to the direction but, in its judgment, thinks that
24 in light of all of the considerations it must have, this is
25 the best way to implement the direction through time, in this

14:06

1 manner. In that manner, it's not ignoring the direction; it
2 is doing some adjustments in accordance with it.

3 And I think there is some degree to which --
4 even the experience of the early '90s when people were making
5 some adjustments to rates, reflected this same type of
6 thinking. So that's the concept in terms of what this
7 paragraph here is talking about and what I alluded to
8 earlier, because I was alluding in my reference to a
9 response. I was alluding to this exact paragraph.

10 Q. Okay. So it's not YEC's position that recovering less
11 than 100 percent of the incremental costs of diesel in
12 whatever runoff rate the Board does approve, it's not YEC's
13 position, it's not YEC's argument that that would be
14 non-compliant with the current OICs?

14:07

15 A. MR. OSLER: That is not YEC's argument.
16 YEC's advanced two options itself and recognized a third
17 option.

18 Q. Yes.

19 A. MR. OSLER: And the two options that it has
20 advanced, in consultation with others, do not go to
21 100 percent right off the bat. They say the point is not to
22 get there today, the point is to make a material movement in
23 that direction today and have a game plan, an orderly process
24 to comply over time.

14:07

25 Q. Thank you. Does YEC agree that -- and we're coming back

1 to my line of questioning that we were at just before the
2 lunch break. Would you agree that in 2009 diesel was rarely
3 on the margin, at least with respect to the hydro rate class?
4 Is that correct?

5 **A. MR. BOWMAN:** In the way that we use the
6 definitions in 2009, diesel was not on the margin with
7 respect to the hydro systems, either the WAF system -- and
8 particularly the WAF system, which is where this item
9 typically gets debated -- and it was not on the margin either
10 in the GRA forecasts or in fact.

14:08

11 Q. Thank you. Now we will completely change speeds. I
12 know that the opening statement referred briefly to seasonal
13 rates, but I do have a couple of questions on them. First,
14 could a time-of-use rate send the actual price signal to
15 residential customers precisely on the days that you know
16 diesel generation is required? I mean, could seasonal rates
17 send an effective price signal in that regard?

18 **A. MR. OSLER:** I want to make sure that we
19 understand each other. If you knew for sure that there's
20 certain months of the year that diesel was going to be for
21 sure on the margin, without debating anything more than that
22 as an assumption, is your question, could a seasonal rate
23 that took those months and charged that type of rate and some
24 other rate elsewhere achieve a price signal?

14:09

25 Q. Yes.

1 A. MR. OSLER: Is that the question?

2 Mr. Bowman...?

3 A. MR. BOWMAN: I thought I understood the
4 question. You asked if a seasonal rate for those days where
5 diesel is on the margin could be reflected to residential
6 customers, and the answer to that is no, because you don't
7 deal with daily loads or daily situations.

8 Q. Monthly?

9 A. MR. BOWMAN: I think the practical answer to
10 that is also no, because your -- for two reasons. First is 14:10
11 there is a practical side that making changes to rates is not
12 something that is easily done into billing systems and the
13 like on a routine basis, monthly, never mind even seasonally.
14 That's one of the challenges that people who run the billing
15 system's noted with the potential to go to seasonal rates.
16 Even if they know in advance, they only have to change them
17 every fall and every spring. It can provide a little bit of
18 difficulty for some logistical matters. And I think the
19 other part of the response is it also wouldn't necessarily
20 fit because it -- with respect to the type of customer you're 14:11
21 dealing with, I'm not sure it satisfied the type of economy
22 and efficiency objective we're talking about where somebody
23 would look to a sustained price signal to be able to help
24 them shape long-term decisions, not something that's more
25 frenetic on and off. It goes to the underlying rate design

1 criteria. We're talking about balancing, and one of those
2 sets of balances is you want people to get a very good, acute
3 price signal, but at the same time you want to give them some
4 rate stability. And I think in this context, that would go
5 far more towards giving a very sharp price signal at the
6 expense of rate stability, probably to a degree that's not
7 advised.

8 Q. I'm assuming it's for those two reasons that you just
9 stated that the utilities jointly decided, as you say in your
10 opening statement, that seasonal rates was not the preferred
11 approach? 14:12

12 A. MR. BOWMAN: We dealt with the question of
13 seasonal rates in one of the IRs. I'm -- CW-25, I believe.
14 Yeah. And as well as LE-10. But the main reason is the
15 logistical ones that I noted. I think seasonal rates, if
16 they're set in advance, if they are predictable, and if
17 they're part of a transition probably could solve some of the
18 issues that I noted in terms of giving customers some
19 stability and predictability. The logistical issues somewhat
20 remain. But this is not to say that they're sort of
21 unworkable. Both utilities recognize that there was some
22 merit to the concept of seasonal rates. They just didn't
23 make it to the top of the list of options to be looked at
24 when we went through the different options.

25 That's in contrast to, say, people who talk 14:13

1 about time-of-use rates with daily time-of-use pricing. That
2 type of thing is right off the table. The metering doesn't
3 exist. It's not cost effective to put it in.

4 Q. You don't have the facilities right now to accomplish
5 that type of --

6 A. MR. BOWMAN: Yeah. And something daily like
7 some jurisdictions are going towards, the metering doesn't
8 exist up here, and it would have no underlying price signal
9 aligned to the daily time of use. It's very common -- I'm
10 leaping over hurdles of detail here, but on a hydro-based
11 system, your resource, when you start to strain the system,
12 is water. There's only so much of it. And you can use it
13 now, or you can use it later. And you're quite indifferent
14 as to whether you use it now or later. So somebody who backs
15 off at night and ramps up during the day or vice versa does
16 not tend to drive a lot of costs on the system different than
17 somebody who is flat, because all it does is change when you
18 use the water. We can do that relatively easily.

19 Seasonally is different. Diesel on the margin
20 is when you're at the point where we simply don't have enough
21 water. So it doesn't matter whether diesel is being operated
22 in November or not. If you use power in November, it causes
23 the water to be the reduced, so it's going to mean there's
24 not enough water in April, and the diesel has to be used.
25 It's not necessarily a real-time function. It's a question

14:13

14:14

1 of how the water is overall being balanced. And that's why
2 the thought of diesel on the margin being a very fine trigger
3 that when it's running, when it's not running, we can learn
4 something. You know, on a hydro-based system, it's not quote
5 so fine a concept.

6 A. MR. OSLER: I'll just add one thing,
7 because in the hydro systems, the time of use, and seasonal
8 rates, certainly in Manitoba, and I think to some extent
9 others, hasn't advanced as quickly as some might think for
10 the reasons Mr. Bowman just gave. It doesn't mean it's not
11 relevant in some other jurisdictions.

14:14

12 Secondly, one of the thoughts that some of us
13 have had in looking at what challenges do we want to take on
14 in an orderly process and which ones might fit, it might be
15 best thought about some other time. Time of use -- seasonal
16 use is thought about in how the system might evolve on WAF
17 and how the two grids in the next ten years. You've had a
18 surplus. There wasn't much to signal. Way back ten years
19 ago, we had days on the margin virtually all the time.
20 Nothing much to signal again. Arguably, there is a time
21 period when we'll have diesel on for all the months of the
22 winter but not the summer. Is it worth the effort in any
23 planning way to think of trying to change rate systems for
24 that as part of a transition towards something else, or will
25 we just not get enough time when that condition exists before

14:15

1 we either, once again, have diesel all year round or a
2 surplus, depending on the load fluctuation. And it was
3 thinking about those types of issues that made some of us
4 think that this was not necessarily something -- even if you
5 could solve all the complexities -- that we thought was --
6 we'd want to put before the Board, given all the challenges
7 that we're talking about.

8 Q. That was helpful. Thank you. I'm wondering -- and I
9 think this might have to be by way of undertaking. With
10 respect to the charts that YEC provided in its opening
11 statement, the left-hand column that dealt with number of
12 customers, my understanding is that that's based on annual
13 averages; is that correct?

14:16

14 A. MR. BOWMAN: Yes, that's correct.

15 Q. I'm wondering if you can provide us one that outlines
16 consumption by month, because my thought would be that the
17 number of customers consuming greater than, for example,
18 1,000 kilowatt hours could differ greatly from June versus
19 January.

20 A. MR. OSLER: It does.

14:17

21 Q. So could you provide us with that information?

22 A. MR. OSLER: In general, I think we can,
23 because we've looked at it. Just to be very precise, the
24 information in this chart is for the hydro large diesel, and
25 I think that's the only -- I mean, really, it's -- to be

1 technical, it's probably more the hydro zone that you're
2 asking the questions about.

3 Q. I think --

4 A. MR. OSLER: Yes.

5 Q. -- it might be helpful if you could provide hydro, large
6 diesel, small diesel.

7 A. MR. OSLER: I'm not --

8 Q. Is that too --

9 A. MR. OSLER: The more you ask, the more time
10 it takes. I mean, the seasonality issue doesn't -- isn't
11 relevant on the diesels.

14:17

12 Q. This isn't --

13 A. MR. OSLER: Okay.

14 Q. -- with respect to the season issue. This is entirely
15 different.

16 A. MR. OSLER: Can we do it quickly? We've
17 certainly --

18 A. MR. BOWMAN: We can look at it. I think
19 we --

20 A. MR. OSLER: We certainly can do the stuff
21 that's in this table reasonably adroitly.

14:18

22 Q. And then on that -- I would be satisfied with that.

23 A. MR. OSLER: Okay.

24 Q. Thank you?

25 A. MR. OSLER: I'm not going to define

1 reasonable adroitly.

2 Q. No. I think we've taken enough time.

3 Mr. Chair, is that a clear enough undertaking
4 for the purposes of the Board?

5 THE CHAIR: Yes. Thank you.

6 MS. KELLGREN: Thank you.

7 **UNDERTAKING - TO PROVIDE A CHART THAT**
8 **OUTLINES CONSUMPTION BY MONTH**

9 Q. MS. KELLGREN: Is it YEC's understanding that
10 the IER is still scheduled to terminate this year?

14:18

11 A. MR. MOLLARD: To the best of our knowledge,
12 it's scheduled to terminate March 31st, 2011.

13 Q. Thank you. I'm wondering if you can turn to what is
14 Exhibit B-12. It's Table 5 with respect to Option C.

15 A. MR. OSLER: Yes.

16 Q. My understanding is that table compares non-government
17 residential customers' bills under existing rates and under
18 YEC's proposed Option C, assuming IER terminates; is that
19 correct?

20 A. MR. BOWMAN: Yes.

14:19

21 Q. Thank you. So would you agree that Option C results in
22 100 percent of customers in this class, outside of Old Crow,
23 receiving a rate increase no matter what their level of
24 consumption might be? I mean, IER terminates and...

25 A. MR. OSLER: The purpose of this table and

1 the previous one, the one before, is to distinguish what
2 happens when the IER comes off. So essentially, Table 5
3 tells you what the effect of a Board decision would be on
4 bills. The difference between Tables 5 and 6 shows you the
5 implications of removal of the IER.

6 A. MR. BOWMAN: Four and 5.

7 A. MR. OSLER: Four and 5. I'm sorry. Four
8 and 5, I'm sorry. So the bill increase, not a rate increase,
9 the bill increase, as shown in Table 5, would be the
10 cumulative effect of those two events.

14:20

11 Q. Yes. And the cumulative effect of those two events,
12 let's say April 2011, would be that all customers see some
13 sort of bill increase?

14 A. MR. OSLER: Yes. And that will be the case
15 under any of the options that are under discussion before the
16 Board right now.

17 Q. Okay.

18 A. MR. OSLER: And essentially that's shown in
19 our opening statement in Table 2. And essentially what it
20 shows in Table 2 is that the majority of customers in the
21 system, their bills, in terms of this cumulative effect, will
22 be impacted by this Board's decision if the -- if the IER is
23 in fact removed, with the lowest impact on the majority of
24 customers being Option A, and the most severe impact on the
25 majority of customers being Option B. That's what the

14:20

1 evidence shows.

2 Q. Yes.

3 A. MR. OSLER: Thank you.

4 Q. But again, I was just relying on this particular chart
5 just for illustrative purposes, and I'm not suggesting that
6 it had a different purpose, but I think it has some numbers
7 that we can rely on. And am I correct in seeing that
8 Old Crow, in the same class, which is residential
9 non-government, for Option C, which is Table 5, the customers
10 in Old Crow in the same class receive a rate decrease? Is
11 that correct? 14:21

12 A. MR. BOWMAN: Yes.

13 Q. And this is where the incremental cost of diesel
14 generation is the highest?

15 A. MR. BOWMAN: Right. In '96, '97, as we
16 talked about, when rates were set, there was only two blocks.
17 There was a first block up to a thousand kilowatt hours that
18 shared the hydro, and there was usage above a thousand, which
19 was all based on diesel. The same way as we talked about in
20 lots of other jurisdictions. It's a pretty common way to
21 deal with those remote communities. 14:22

22 In Old Crow, that price of diesel was 25 cents
23 or on that order, 25.77. When we came to propose this set of
24 rates, and we start saying, but, no, we're going to create a
25 new third block that's going to be linked to diesel, and it's

1 going to only kick in at 1,500 kilowatt hours or 2,500
2 kilowatt hours, and we're going to create a second block, and
3 that second block is levelized throughout Yukon at --
4 depending on the option you're looking at -- 12, 14, 16
5 cents, the people in Old Crow are actually getting a
6 decrease for their consumption between the thousand and first
7 kilowatt hour and the end of the second block. Where
8 previously they had been at 25 or 26 cents, and now they're
9 going to be at that 11-, 12-, 13-, 14-cent range. Now, the
10 practical effect of that is extremely limited because there's
11 very, very few customers in Old Crow who go above a thousand
12 kilowatt hours a month. Whether that will change is a --
13 this is another question, but at this point, very, very few
14 customers in Old Crow go over a thousand kilowatt hours a
15 month. So practically I think you'll find that that table
16 may set out some numbers that are accurately calculated but
17 apply to no one in terms of the bill decreases.

14:23

18 A. MR. OSLER: Just so we understand, when we
19 go to the all-diesel communities, they all benefit
20 considerably in these type of calculations, and the degree of
21 benefit for very large users, if they exist, is a function of
22 two things. One of them is the 70 percent or 50 percent or
23 80 percent of incremental cost in those areas that we're
24 setting the run-out rate at. The second thing is, is we're
25 shrinking the area -- the particular levels of use, the

14:23

1 number of customers, who are being affected by that on all
2 the options. Because it used to be they got affected the
3 minute they went over a thousand kilowatt hours a month.

4 So it's that type of thinking when we're
5 trying to think Yukon wide that gives us concern about where
6 the third block starts in the long run. We have to have the
7 same rate throughout Yukon for everything but the run-out
8 rate. We need more rate blocks to make all this work. But
9 if we set the rate block in the long run at 2,500, that means
10 that Old Crow, small diesel, Watson Lake, everybody, even
11 though they're a 100 percent diesel community, doesn't really
12 see that full price signal until they get to be a very large
13 level of consumption. We think it's prudent, reasonable,
14 given the transition plan, to get that closer to 1,500 as the
15 transition point versus 2,500 over time for those types of
16 reasons, keeping in mind we're not just focussed always on
17 WAF. We have to be thinking about the whole of Yukon.

18 Q. Understood. And I guess -- so are you agreeing with me
19 that in fact we're instituting this second block, and the
20 runoff block is now a third block.

21 A. MR. OSLER: Right.

22 Q. But the effect of that is to send the price signal to
23 diesel communities at a lower price than what they were
24 paying before?

25 A. MR. OSLER: For a large element of

14:24

14:25

1 consumption, that's what's being shown here, yes. That's why
2 they get a bill --

3 Q. So how is that an effective price signal?

4 A. MR. OSLER: It causes us concern. If the
5 message is that we're -- you know, that we're in a transition
6 period, so don't go running off buying stuff or doing things
7 that assume this is the long run. We will be -- here's the
8 policy, here's the approach, and in the next five years, or
9 whatever the time period is, we're going to move in such a
10 manner that by the time you go from a thousand to
11 1,500 kilowatt hours a month, you're going to be seeing the
12 runoff rate, and you're going to be seeing a higher second
13 block than you would have seen before as a first block. We
14 think that will probably work. On the other hand, if you
15 don't pay attention to it and you don't send the signal that
16 that's where we're going and you're living in the Yukon, do
17 you have to remember that there are 100 percent diesel
18 communities, and we have changing price signals with
19 everything we're talking about here and be careful. Be very
20 careful.

14:25

14:26

21 Q. That is one of our concerns as well. So, in effect, if
22 I can perhaps reword that, the thought is that perhaps this
23 rate structure, as proposed, for example, Option C, doesn't
24 accomplish an effective price signal, but that it's a
25 transition point to eventually accomplish an effective price

1 signal?

2 A. MR. OSLER: That is -- I would agree with
3 completely. That's the point -- we've gone to Option C, not
4 because we're enamored by that rate block structure as a
5 long-term solution, but because given the debates, given the
6 discussion, we've stuck to our principles, if you like. We
7 think the key thing to achieve is a runoff rate. We've said
8 it from the GRA right through now, 20 to 22 cents, in that
9 range. So let's find a rate block we can all agree to get
10 the signal up there at least, and if that takes the Option C
11 type of a rate block structure to get started, good, but
12 don't stop there. You know, plan for it as a transition to
13 get us back to start at 2,000 or 1,500, for the reasons that
14 you've just been asking me about.

15 Q. So one step back, eventually two steps forward?

16 A. MR. OSLER: I don't think I'd go that far.
17 I think the key thing we focused on is the runoff rate, and
18 we're not stepping back an inch from the range we've talked
19 about. In order to achieve that, we have all agreed we need
20 three blocks, which is a big step forward. I frankly -- when
21 we testified in the GRA, I had never even thought of the
22 concept of three rate blocks. Our colleagues from YECL and
23 YEC working together came up with rate blocks. I knew we'd
24 need them for the GS, but I never thought we'd be thinking
25 about them this way for the residential. That team of people

14:27

14:28

1 did a very good job in coming up with these options there,
2 but we have a little bit of discussion about whether it
3 should be starting here or there, and you're hearing it all
4 now. And the reasons why we started at 1,500 collectively
5 was because of the long-term type of thinking, but maybe we
6 need to be -- we have come to the conclusion we do need to
7 recommend to people, look at something a little different for
8 starters just to get the 20 to 22-cent number established in
9 people's minds for some runoff rate.

10 Q. So why is the institution of a third block necessary to
11 accomplish the goals that you've discussed? Is it because of
12 the constraints of the OICs, and, kind of, by operation of
13 those, you're not able to set an effective runoff, which is
14 required to be at 1,000 for residential? Is that the reason
15 for the third block?

14:28

16 A. MR. OSLER: No, I don't think so. I don't
17 think I'd blame the OIC or anything like that for it. The
18 OIC simply says you can't start charging people incremental
19 costs or economy and efficiency rates. Anything lower than
20 1,000 kilowatt hours in the residential sector or 2,000
21 kilowatt hours a month in the general service. It -- as
22 everybody who thought about it came to the conclusion, it
23 doesn't stop you from moving upwards to a higher level where
24 you start the runoff rate. The runoff rate under the OICs is
25 simply the rate where you can vary it across Yukon to reflect

14:29

1 different incremental costs of production. And that was a
2 bit of a revelation, because some of us hadn't necessarily
3 thought it all the way through before.

4 But the reason, in my view, why we understood
5 that there would be three blocks or more in the general
6 service was because of different customer characteristics,
7 which we can discuss separately.

8 In the residential sector, the reason why it
9 seems to have emerged as a very sound approach is because of
10 the nature of the gap between where the runoff rate needs to
11 be and where the historical average cost, lowest rate will
12 be. The first block rate will be the heritage rate. It will
13 probably be the lowest rate under all rate principles we can
14 think of and looking at BC and other places that are doing
15 these things. The lowest rate should be the first block, so
16 that will be the rate that we can set low, if you like. So
17 it's a transition to get to the highest rate which some day,
18 in the not-too-distant future, should be the runoff rate at
19 full diesel cost. By putting in a third -- a second block, a
20 new second block, we make that transition a bit more gradual
21 and not like between night and day, 10 cents or 8 cents
22 versus 20 cents, and we allow people to learn as they -- as
23 the consumption level goes up. It probably improves revenue
24 stability for the companies, it probably just is fairer all
25 around, and it does achieve the objectives we're talking

14:30

14:31

1 about. I think those -- Mr. Bowman and people who wrestled
2 with this at a detailed level may have -- do you have
3 anything else to add? Okay.

4 Q. Thank you. My understanding of the operation of the
5 OICs is that resulting from the proposed increase to the
6 runoff block rate necessitates a decrease to the first block
7 rate. Is that correct? Because you can only recover a
8 certain percentage within a given rate class.

9 A. MR. OSLER: It's the waterbed analogy --

10 Q. Yes.

14:31

11 A. MR. OSLER: -- that people love in these
12 type of hearings. We've said -- and this isn't nearly as
13 exciting as a waterbed sounds. The point is that we have to
14 raise the same amount of money from the class.

15 Q. Yes.

16 A. MR. OSLER: That's the Order-in-Council's
17 direction. Overall, even if there was no Order-in-Council
18 direction of a short-term nature like that, you would have to
19 raise the same amount of money from all the classes. So if
20 we raise the rate in some area, it's got to come down
21 somewhere else as a general rule. We've got to raise the
22 same amount of money, not more, not less. And if we're going
23 to say we have to raise the same amount from the residential
24 class, one way or the other, if you raise the rates for large
25 users, you're going to be reducing the rates for the smaller

14:32

1 users. It's for math -- as my friend would say, just
2 mathematics.

3 A. MR. BOWMAN: As the friend who would say
4 it's just math, in this case, there's actually more to it
5 than that. We also have the factor that the structure of the
6 Order-in-Council is such that it is setting out -- as I
7 explained earlier, for a reasonable quantity of power, you
8 get the benefit of a set of heritage assets. For use above
9 that, you reflect the cost of incremental supply. What's
10 happened since '97 is the cost of incremental supply has gone 14:33
11 up. We've talked about that a lot. What we haven't spent a
12 lot of time talking about is that actually the costs of the
13 heritage supply has gone down. The assets have gotten
14 depreciated. There hasn't been a huge amount of further
15 investment into the generation side. The transmission side
16 there's been some investment, but sort of long-lived assets.
17 They're helping to supply a larger, non-industrial load. So
18 actually that first block, which is intended to share the
19 hydro and transmission system, which had seen Rider Js and it
20 had seen Rider Rs and it had seen some other costs applied to 14:33
21 it, when you now go back and say, I'm going to design the
22 rate so that my first block carries the cost of the heritage
23 assets, at this point in time, if anything, it's a bit lower
24 than it was. So there are -- there is a -- it's not just a
25 -- constraints put on by an OIC, there is also an underlying

1 cost rationale that reflects it.

2 Q. So moving toward, if the goal is to get to 100 percent
3 recovery of incremental diesel generation, will we see then
4 even more dramatic decreases to the first block --

5 A. MR. BOWMAN: Not necessarily.

6 Q. -- based on those --

7 A. MR. OSLER: You have to think in terms of
8 how rates will evolve, and I don't have any wisdom on that
9 for today. But they won't tend to go down as an overall
10 average. I mean, the territory is facing growth, and that 14:34
11 means there will have to be generation development, and that
12 means that there will be more and more incremental costs that
13 go into the systems. And we're trying to minimize that by
14 saving on use of diesel. If we don't, it will be even worse,
15 because there will be an awful lot of diesel -- more diesel
16 than we'd like that will be being burned. And that will
17 raise the overall revenue requirement. It may well mean that
18 the first block rate will tend to go up. This is a
19 rebalancing here, process, that's under discussion, but all
20 rates may go up. The only point is you probably won't take 14:35
21 the incremental rate above 100 percent.

22 A. MR. BOWMAN: It goes to my earlier comments
23 as well, that Option C isn't just a set of numbers. It's a
24 proposal for a roadmap, and that roadmap says that the
25 priority for ongoing rate adjustments which are going to tend

1 to be, over time, the way that they always are, generally an
2 upward rate adjustment, further investment in the system,
3 load growth, new assets coming online, will be to move down
4 the second block cutoff -- the third -- the second and third
5 block cutoff and to bring -- and subsequently, to bring the
6 runoff rate closer to 100 percent. Those will be the
7 priorities. So further revenue is needed from the class. It
8 will tend to come from those sources.

9 The premise under Option C is not that it's
10 designed for further rebalancing or major reductions to the
11 first block or anything of the sort. That it's just setting
12 out a roadmap for how rates would evolve.

14:36

13 A. MR. OSLER: Essentially I can tell you one
14 thing, that if -- whatever the increases required in the
15 future for the reasons to do with growth and development of
16 the system, if you have two rate options, A and C, just to
17 compare them, what will have to be picked up from the
18 majority of customers in Yukon will be more under C than
19 under A.

20 Q. Sorry, can you restate that?

14:36

21 A. MR. OSLER: No matter what the level of
22 increase in revenue requirements are in the future due to
23 growth and development of the system and all the other things
24 you've got to do for the system, the vast majority of
25 customers, as this graph shows, consume less than a thousand

1 kilowatt hours a month. So talking about that block of
2 people, no matter what the revenue requirement has to be in
3 the future, if we move the runoff rate up towards 100 percent
4 and you have Option C versus Option A, those people under a
5 hundred kilowatt hours will pay more under Option C than they
6 will under Option A.

7 Q. Understood.

8 A. MR. OSLER: And that's why we see as a -- C
9 as not a long-term solution, both to do with Watson Lake
10 types of issues and other types of issues, but also to do
11 with what I just talked about. It's a start and not the end
12 goal, and you should be moving the block towards what's under
13 Option A.

14:37

14 Q. Is there some thought that -- I know it's proposed
15 today, so I know that it's not in front of the Board, but is
16 there some thought in these transitional plans that the
17 runoff block rates will be set according to the communities
18 that use diesel as opposed to those that do not? Leaving
19 Old Crow out of the equation, you know, talking about large
20 diesel/small diesel versus Whitehorse, is there some thought
21 that the runoff rate will be adjusted accordingly, or is the
22 thought that that would just be unfair?

14:38

23 A. MR. OSLER: Well, let's just deal with it.
24 Factually, Old Crow and the small diesel communities are
25 treated in the policy sense, if you go through all the

1 documents, such that the diesel runoff rates in those two
2 sets of communities will be whatever they are and that will
3 be the price signal, and it all depends on this blocking that
4 we just talked about as to how many people are exposed to it,
5 okay?

6 So the question boils down given that Dawson
7 is now off diesel in the sense of relying on it as its
8 primary source of energy, it boils down it Watson Lake. And
9 historically Watson Lake's diesel price has been a bit lower
10 than Whitehorse's or other places. So it may well be that in 14:38
11 the long run this approach we're talking about, if we move
12 towards Option A will allow the people of Watson Lake to be
13 treated the same as people on WAF without any prejudice to
14 efficiency price signals at all.

15 If the WAF price signals reflecting -- if the
16 blended price signal of Watson Lake and the WAF-Mayo system
17 is the runoff rate charged in those areas, my estimate at the
18 moment would be that that would not be in any way, shape or
19 form prejudicial to economy and efficiency, assuming you
20 adopt the approach we're talking about. If you stick with 14:39
21 just something of Option C or worse, I would have concerns
22 that you really are not getting in the long run an effective
23 price signal in Watson Lake.

24 Q. Thank you. So, we have wondered why, given that the
25 current existing rate structure has been maintained for some

1 time, perhaps longer than was originally contemplated when it
2 was set, but why start making these changes now?

3 Our understanding is that the OICs are set to
4 expire in 2012, and there are some factors of these OICs that
5 perhaps constrain the rate design and certainly constrain
6 what one can do with the cost-of-service study. So, we're
7 wondering why not wait until 2012 when changes can be made
8 without these -- potentially be made without these
9 constraints? Why now?

10 A. MR. OSLER: Well, the first answer is based 14:41
11 on the questions you asked me earlier about where do the OICs
12 fit into all of this. I mean, the Board is seized with it,
13 and it now has to make decisions based on the information and
14 take into account the direction. So it boils down to, just
15 looking at that dimension, taking into account all the facts
16 and all the evidence, is there some reasonable basis that we
17 could recommend and the Board could adopt a decision to defer
18 moving towards these price signals until after what? Till
19 after the government decides whether or not there will be
20 -- allowed to be a rebalancing between the government and the 14:42
21 residential class of who pays what?

22 That may never occur. It might occur after
23 -- I've seen things in my lifetime where expiry dates get
24 extended. I mean, what's the point? We should just wait? I
25 can't -- from the point of view of the price signals and the

1 issues of development, from the point of view of Yukon
2 Energy's position and the recommendations that I would have
3 given them, I can't see that being remotely a good idea
4 because it puts you out of control again compared to seizing
5 control now that the opportunity has been put in front of
6 people. So that's one set of thoughts.

7 I think Mr. Bowman and those who have been
8 wrestling with it can probably address, you know, why was
9 there a consensus to deal with at least getting three blocks
10 now and do things like that. I mean, we're recognizing 14:43
11 what's coming. What's coming is -- and what exists right now
12 in Watson Lake, which you've just been talking about.
13 They're the only diesel community probably in northern Canada
14 who isn't facing some remotely significant price signal
15 courtesy of the delays of the last 14 years.

16 Q. But if I understand your testimony correctly that won't
17 change, at least --

18 A. MR. OSLER: Oh, it will change. It will go
19 to 20 cents rather than, you know, 15 cents or something. It
20 will go. That's why the price signal that I'm talking about 14:44
21 was so important to Yukon Energy as a fundamental thing to be
22 required -- to be achieved hat this time, not 100 percent but
23 something meaningful, and we've always said 20 to 25 cents
24 -- 20 to 22 cents. The percentage can vary depending on
25 where the price of diesel is, but we thought that was a

1 reasonable first step.

2 And so, if you see the magnitude of the
3 challenge that's in front of us at this time, that challenge
4 is going to be there in terms of the incremental pricing no
5 matter what happens to that Order-in-Council that you're
6 talking about, and it's only a couple of Order-In-Councils
7 that are effective. 9590, nobody is suggesting that that's
8 going to expire after 2012.

9 The diesel -- the industrial one, it can
10 expire and it just simply brings back to the Board setting of 14:44
11 rates. The rates right now for industrials are roughly than
12 10 percent more than costs, so that's not a big challenge.

13 The only issue that's left is whether the
14 Order-in-Council was rebalancing between fundamentally the
15 government, which is the territory largely, and the
16 residential ratepayers, et cetera, in the territory. Whether
17 the government will take that off in order to reduce its
18 costs and increase the charges to all Yukon ratepayers, you
19 know, I'm not going to comment on that, but I think there's a
20 lot of challenges that are independent of that that we've 14:45
21 been talking about, and I think Option C gives everyone a
22 chance to deal with those challenges without undue delay.

23 A. MR. BOWMAN: The only other thing I'd note,
24 from the perspective of people who were going through this
25 and trying to put together the application, is that I'd echo

1 Mr. Osler's comments that most of what we have just gone
2 through in terms of OICs and how they guide the rates is
3 coming out of Order-in-Council 1995-90 which is the permanent
4 rate policy for Yukon. It doesn't have an expiry date.

5 There is a separate set of OICs which are quite limited and
6 have a limited effect which have expiry dates and maybe they
7 will expire and maybe they won't when it ultimately comes to
8 past.

9 But the biggest challenge in this filing --
10 the biggest issue we had to wrestle with is that there's 14
11 years with no rate changes when the world -- the underlying
12 world has changed. Diesel prices have gone up two and a half
13 times and the system has gone through a temporary -- you
14 know, a decade, but a temporary period where everybody got
15 used to the idea that there's as much hydro as you possibly
16 want to use.

14:46

17 That's not the case going forward. People
18 have to wrestle with the new reality, and in moving to that,
19 look at how it fits the rate policy, look at how it fits the
20 overall goals of Yukon in respect of how it shares the rate
21 signals.

14:46

22 We had a comment earlier about the different
23 ratemaking objectives and one of those is rate stability. A
24 key aspect of Option A and Option C is rate stability. Rate
25 stability is not about not changing rates. It's about

1 getting some predictability on a path that you're on towards
2 where you need to go.

3 It's about looking forward. It's not about
4 looking back and saying, Can I leave things the way they are?
5 And looking forward, as we went through in the Mayo B
6 hearing, as we go through, when he talk about resource
7 planning, when we look at the loads that are coming, when we
8 look at the resources in the Yukon, looking forward two
9 years, five years, a decade, there is a need for a plan.

10 And that plan doesn't stop with Option A or
11 Option C. Those are steps towards where that plan needs to
12 go, and if you want a set of rates that passes the stability
13 test, locking in today's rates or putting off this issue
14 longer is not going to ultimately lead it stable rates. It's
15 ultimately going to lead to a need to wrestle with this when
16 the problem is much more acute than it is today.

17 Q. Thank you.

18 A. MR. BOWMAN: I also noted in your preamble
19 to the question was something about OICs constraining cost of
20 service, and I've seen that written in the IRs as well. Just
21 to make sure that's clear, nothing in the cost-of-service
22 study is governed by OICs that says that you can't rebalance
23 or anything of that sort.

24 The OIC (sic) has been prepared on a
25 Yukon-wide basis, but it does not -- it is not somehow

14:47

14:48

1 constrained by the OICs. It reflects the best analysis that
2 could be done towards what the cost to serve each customer
3 class rate in Yukon is.

4 Q. Understood. And what I meant by that is the application
5 of cost-of-service study is what's constrained. Okay.

6 This is my last point of questioning, and then
7 I promise to get off. I'm just wondering, I know we spoke
8 about DSM a little bit earlier, and by "we", I don't mean
9 myself, but I heard Board counsel discussing DSM measures
10 briefly.

14:49

11 We haven't seen a lot of -- and I guess that's
12 my question, but the consensus seems to be that we haven't
13 seen a lot of movement in the development of DSM measures.
14 We've heard discussions and testimony today that, you know,
15 there's some projects underway, but I believe we also heard
16 that the Board has been discussing DSM in various capacities
17 with the utilities since the early '90s.

18 Why couldn't we accomplish what we're
19 discussing today, and why couldn't the utilities have
20 accomplished what we're discussing today as being an
21 immediate requirement? You know, we want to institute -- my
22 understanding is and what I've heard from you is that you
23 want to institute these changes right now because it's
24 already been too long.

14:50

25 Where is DSM in all of this? Why hasn't there

1 been the development of DSM measures to also effect positive
2 change with respect to diesel consumption?

3 A. MR. OSLER: I'll say a few comments and
4 then Mr. Mollard will address what you're talking about.

5 There was DSM brought forward in the resource plan that the
6 companies brought out in the early 1990s and was reviewed by
7 this Board, and then in the '93 hearing when the Faro Mine
8 was shutting down, any priority on DSM and approval of
9 expenditures to put into rates for DSM was reduced, okay,
10 because we had a surplus and we had a mine shut down. We had 14:50
11 other priorities.

12 There has been a lot of attention in the
13 territory for conservation measures though for all consumers,
14 and there has been recognition that as the system surplus in
15 the electrical sector for the majority of customers recedes,
16 the priority for DSM has to increase, and I think you're
17 seeing that, is what's emerging and Mr. Mollard can reiterate
18 that.

19 The role of the utility -- utilities in that
20 is one of the items of discussion, in essence, because the 14:51
21 government's involved, other people are involved. It isn't
22 just for electricity. It's for all sectors.

23 So, I think the government has made it clear
24 that it is playing a lead role -- I think it sent a letter to
25 the Board to that effect. It's playing a lead role in the

1 development of DSM, thank you very much, in the territory,
2 and the companies are working with the government and other
3 sectors to do that. I don't think it's a lack of priority.
4 I think it's been adjusting and adapting to the conditions as
5 they've evolved.

6 Frankly, the secondary sales -- in the
7 technical understanding of what conservation is all about,
8 secondary sales were an appropriate measure in the world of
9 DSM and stuff when we had a surplus. We don't have the
10 surplus now or it's virtually gone. We certainly don't have
11 secondary sales, and people should be ready to have programs
12 that can respond to that. I think that's what's happening
13 from what I'm hearing.

14:52

14 A. MR. MOLLARD: If I could add a few points
15 there. I think when Yukon Energy most recently recognized
16 that the supplies of cheap heritage hydro was disappearing,
17 we recognized that we needed to start looking at supply
18 options and DSM is a valid supply option. You need to have
19 that on your list as ways that you can save energy for the
20 benefit of all ratepayers.

14:53

21 As Mr. Osler mentioned, we've been active with
22 the interested parties in this project, and we're going to
23 carry this forward and get whatever we can out of it to help
24 the utility. We would view what we've tabled here in this
25 application as part of a DSM package in that by sending a

1 price signal, it's not that it's punitive to those people
2 that are paying that, but it's an opportunity for them to
3 conserve. And in that way, the higher that price, the more
4 incentive there is for them to conserve energy and thereby
5 get savings on their bill and help everybody, and that would
6 be a cornerstone of that program.

7 A. MR. BOWMAN: And Ms. Kellgren, I would only
8 add: I understood your question to be effectively why can't
9 DSM do the same thing as you're proposing with the options on
10 rates, and the answer is: It can't. It is not a question of 14:53
11 "either/or", it is a "both and" and they work together and
12 they complement each other and they're both timely things to
13 get moving on.

14 In particular, sending price signals to
15 customers -- I think Mr. Maissan may underline this as well.
16 Sending price signals to customers achieves one side of
17 ensuring that your system costs are being recovered, that
18 your new supply costs are being reflected in rates, and it's
19 an important thing to do regardless of the efficiency actions
20 it drives or not. It is important because it is the policy 14:54
21 of Yukon and it's important because it helps achieve economic
22 efficiency, and it sends people the right price signals and
23 it gives them the opportunity to act.

24 DSM is something different. There is
25 certainly a lot of DSM that is going on outside of

1 utility-led programming. Utility-led programming is one
2 component of that, and Mr. Mollard has dealt with that.

3 But I'd only underline the point that if I was
4 a 1500-kilowatt-hour customer in the Yukon and I was given
5 two options of rate designs, one of which -- both of which
6 charge me the same bill at the end of the day but one of
7 which had a higher marginal price signal and one of which had
8 a lower, I would find the one with the higher marginal price
9 signal would be intriguing because it means if I do take the
10 opportunity turn off the lights, if do put in a more
11 efficient fridge, I'm actually going to save more money than
12 I would have under the old regime where the price I was
13 saving kilowatt hours at was lower.

14:55

14 All things being equal, you're probably
15 further ahead having that price regime. So it's not -- it's
16 not a question of having to focus on one or that one can
17 replace the other. They very much are complementary.

18 Q. One last question: Is there not some concern that the
19 decrease in many rates that we're going to see as a result of
20 Option C is going to result in those classes of consumers
21 consuming more, meaning they can consume more kilowatt hours
22 to maintain their bill at a certain level?

14:55

23 A. MR. OSLER: Sorry?

24 Q. Sorry, I just want to say, is that not a concern?

25 A. MR. OSLER: Of all of the concerns -- you

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Ms. Kellgren

1 know, it is a concern in the sense that if you believe that a
2 higher price will discourage things and it might have some
3 effect long run, you can believe also that a lower price
4 might encourage it in the long run.

5 Two caveats: If you have the right type of
6 rate blocking and your second block starts at a thousand,
7 there's some speed bumps that are still left there for
8 people, and we think that minimizes the degree of really, in
9 practical life concerns, is going to lead to anything
10 material in terms of longer run changes in consumption. 14:56

11 The second thing is the difference between
12 Table 1 and 2 in our opening statement. I mean, for those
13 people who believe that announcements of termination dates,
14 whether they be Orders-in-Council or IERs are meaningful,
15 these people are not going to be facing a bill decrease.
16 They're going to be facing a big bill increase no matter
17 which option we do because the IER will come on.

18 MS. KELLGREN: Okay. Those are all our
19 questions, Mr. Chair.

20 THE CHAIR: Thank you very much,
21 Ms. Kellgren. So, Mr. Buonaguro...? We're just going to
22 take two seconds to fix a technical problem here. Our plug
23 seems to come unplugged. It must be a YEC problem.

24 (DISCUSSION OFF THE RECORD)

25 THE CHAIR: You can proceed for UCG 14:57

1 whenever you wish.

2 MR. BUONAGURO CROSS-EXAMINES THE PANEL:

3 MR. BUONAGURO: Thank you very much, Mr. Chair.
4 Good afternoon, panel. I would like to start by asking for
5 an undertaking that the panel not answer any of my questions
6 with reference to things that happened in the '90s, if that's
7 possible. That's a joke, by the way. I think it wouldn't be
8 possible.

9 I'm actually going to start with the opening
10 comment document that was circulated. I don't have the
11 -- I'm using an electronic version so I don't have the
12 exhibit number on it. D-14?

14:59

13 A. MR. OSLER: Yes.

14 Q. And in particular, I'm looking at the table at the back,
15 the first one, Table 1, "comparison of options, residential
16 non-government with IER". I just want to make sure that I'm
17 understanding parts of it. In particular, I'm looking at the
18 first column, "Bills" column, which has what seems to be
19 numbers of customers.

20 Now, first of all, I think you mentioned --
21 and I didn't catch all of it when you were describing this
22 particular column. My understanding of this is an average
23 annual number of customers?

15:00

24 A. MR. BOWMAN: It's an average number of
25 customers over the course of the year, so it's actually an

1 average of the monthly values, I guess, but it's the number
2 of bills over the course of a year in that range divided by
3 12, to be technical.

4 Q. Okay.

5 A. MR. OSLER: Number of bills per month.

6 A. MR. MOLLARD: It's the average number of
7 bills per month so, yeah.

8 Q. Which I guess explains why my friend asked for an
9 undertaking to get the monthly because presumably the monthly
10 would wildly -- sorry, would vary wildly?

15:01

11 A. MR. OSLER: It varies.

12 A. MR. MOLLARD: It varies.

13 Q. It varies, okay. And because it's bills, the first
14 thing I did when I saw it was try to reconcile the numbers of
15 customers that are shown here with the number of customers
16 that you're representing in the table I asked you about
17 yesterday. And there was a discrepancy but I thought at
18 first the discrepancy may be because this isn't for the
19 entire customer base. This is just for hydro and large
20 diesel; correct?

15:01

21 A. MR. OSLER: Correct.

22 Q. But also the discrepancy may be bill related -- numbers
23 of bill related?

24 A. MR. BOWMAN: If you're talking about a table
25 you referenced yesterday, that was a 2009 table.

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 Q. Hmm, hmm?

2 A. MR. BOWMAN: The 2009 table would be based
3 on billing determinants arising from the forecasts for the
4 general rate application. In terms of this fine, fine level
5 of detail as to the number of bills in each block and things,
6 it's not forecast at that level for a general rate
7 application. So this is actually based on actual 2007 data.
8 So they will be slightly different for that reason and, of
9 course, also these are only the hydro and large diesel
10 customers and not the small diesel and Old Crow customers.

15:02

11 Q. Okay, thank you. So when I look at the table, I'll
12 start from the stop here, which has 116 customers over 3,000
13 kilowatt hours. That's not to say -- that's not to say that
14 there's 116 customers who average 3,000 per month, does it?

15 A. MR. BOWMAN: It's to say that there are 116
16 times 12 bills issued over the course of 2007 that were for
17 greater than 3,000 kilowatt hours total on the bill. It
18 isn't looking at month by month. There may have been none in
19 August. There may have been more in January.

20 And it also isn't necessarily looking at a
21 customer meaning that house or that store or, in this case,
22 it's house. It means that if there was a bill that was 3100,
23 it goes in that category and you add those up and divide by
24 12.

15:02

25 Q. So, if I were to want to know, for example, how many

1 customers actually experienced at least one bill in 2007 --
2 because that's the data you're using, in 2007 that was in
3 excess of the 2500 break mark, I couldn't just add up 108 and
4 116, and I don't think that information is anywhere else in
5 the application?

6 A. MR. BOWMAN: If you actually mean by a
7 customer, like an individual account number, like an
8 individual house, you won't be able to get that from this or
9 any other data set we'd have available to us. You'd actually
10 have to -- if it's even possible, you'd have to go through
11 reams of, you know, unique accounts so that you're tracking
12 the same customer, that it's not -- we won't know the
13 difference if it's 12 customers who each used 3,000 in one
14 month or one customer who used over 3,000 in 12 months.

15:03

15 Q. A different way of putting it is that some customers may
16 experience one bill that exceeds that threshold of 2500 in an
17 entire year. Some customers may exceed in it every month of
18 the year. You can't tell me how that breaks down?

19 A. MR. BOWMAN: That's correct. Now, having
20 said that, people's bills do tend to trend towards a certain
21 level. They don't -- most people don't go from 700 to 3,000
22 in a month, or something. But, no, we can't tell you that
23 whether it's house 'x' versus house 'y'.

15:04

24 A. MR. OSLER: What people have done, when
25 discussing this in the last many, many years, because it's

1 been a relevant issue in government programs to look at
2 various subsidies the government was doing and cutoff ranges
3 the government put in there, and stuff like that, they have
4 looked at the monthly and the annual numbers and sort of said
5 that's a proxy for common sense of how many customers are
6 over such and such a limit in any one month or in any one
7 time period. And it isn't technically accurate in the sense
8 that Mr. Bowman is talking about, but it's been used as sort
9 of a reasonable proxy and, frankly, the only one that's
10 available for discussion of this matter. So, when we give
11 them -- give you the monthly numbers, assuming we're going to
12 be able to do that, it's about as good as you can get in
13 terms of a breakout.

15:05

14 Q. Although it strikes me that, at least for the higher
15 levels, you're only talking about -- it doesn't sound like
16 you're talking about a whole lot of customers, and you could
17 actually -- if you were to go into your system figure out how
18 many bills actually exceeded the 2500 mark, you're talking
19 about 224 per month times 12?

20 A. MR. BOWMAN: Right, the only extra detail in
21 all of that for most of customers, it's not in Yukon Energy's
22 data set, it's in Yukon Electrical's data set, and you'll
23 have sat through previous proceedings that went through
24 utility-data-sharing matters.

15:06

25 Q. So they have that information about the actual

1 customers?

2 **A. MR. OSLER:** These are basically the large
3 users. You're going to see they will typically be on the WAF
4 system and they're going to be retail customers of Yukon
5 Electrical.

6 **Q.** All right, thank you. Now, my questions may seem a
7 little more sporadic than usual because I'm trying to cut
8 down on stuff that we've already gone through earlier today
9 on this panel so you'll forgive me I'm sure.

10 You talked with Ms. Kellgren about price
11 signals, and elasticities for these and things of that
12 nature. Do you recall conversation in the last couple of
13 hours?

15:06

14 **A. MR. OSLER:** Yes.

15 **Q.** And one of the things you talked about was the ability
16 or willingness, I guess you can call it, one or the other or
17 both, of customers to actually react to the price signals.
18 You mentioned in particular, I think it was -- you can
19 probably characterize it as, for example, affluent customers
20 who may not care about the price signal because they can
21 afford to ignore it. At the same time, you might have
22 affluent customers who do care and are able to immediately
23 respond to price signals. You'd have a wide variety of
24 reactions within the customer base?

15:07

25 **A. MR. BOWMAN:** I mentioned that factor, that

1 it wasn't a question of ability. Elasticities will be a
2 question of an tendency of people to react, but that included
3 in somebody's tendency to act will be factors related to
4 alternatives, factors related to wealth, factors related to a
5 number of different things.

6 Q. Okay. Now, one of the things you didn't mention
7 specifically when you talked to her and I wanted to raise was
8 the possibility or even I would suggest probability that
9 there are some customers who simply cannot in any material
10 way react to a price signal even though they may be in the 15:08
11 higher consumption ranges, whether it's a result of income
12 level or circumstance, i.e., tenants who are in rental
13 properties where they have no control over the efficiencies
14 of their utilities, and so on and so forth, or whether most
15 of their bill is for heating, for example. They may not be
16 able to react in an appropriate way to the price signal. Is
17 that a possibility?

18 A. MR. BOWMAN: It's a possibility. It's
19 something that others who have dealt with this topic have
20 flagged. In general, you'll -- I think you'll usually find 15:08
21 that when you get into things like multi-family dwellings,
22 apartment buildings, that type of thing, you seem to be at
23 the lower end of consumption as opposed to the higher end.
24 It's not universal, but it certainly is a tendency.

25 So, in terms of the ability to react to price

1 signals, you know, most of the options we're talking about
2 here are actually decreases in that range, not sort of large
3 increases. But it is -- it is certainly viewed as somewhat
4 easier for someone in -- a homeowner to be able to make
5 certain types of investments as opposed to a renter, but it's
6 not universal. Either can choose to turn off the light when
7 they leave the room, if you know what I mean.

8 Q. But I think one or two lights isn't necessarily the
9 material changes that you're looking to drive through the
10 price signal?

15:09

11 A. MR. BOWMAN: Well, I think you want to be
12 careful when talking about driving through price signal. The
13 premise behind the bulk of what we're talking about here is
14 ensuring that price signals reflect the underlying costs of
15 the system and that in setting rates, we're attentive to what
16 it takes to supply the power. The fact that people respond,
17 have a tendency to respond, take up that challenge or perhaps
18 can't afford to is in a way a separate matter. It's into a
19 reason not to set proper rates. It's a reason to be
20 attentive to other options that appropriate agencies can
21 provide.

15:10

22 Q. You talked about it -- and I'll use your words -- as a
23 separate matter. When do we consider that separate matter?
24 Is it not in this proceeding?

25 A. MR. BOWMAN: It depends what you mean by

1 that.

2 Q. I can give you an example. Has YEC taken any steps to
3 identify those customers who may be unable or may have
4 trouble or serious problems in reacting to the price signal,
5 notwithstanding the position that in terms of setting the
6 price signal, you do it without regard for their ability to
7 react?

8 A. MR. OSLER: Let's try and refine this a
9 bit. I mean, low-income situations where the reaction
10 ability is tied to somebody's wealth and things like that as 15:11
11 distinct from unable to react for some other reasons, is that
12 the type of example you're looking for?

13 Q. And more generally speaking, you have made any attempts
14 -- well, let me back up. We've gone through the numbers, and
15 my understanding is that on the data that you have, at least
16 that you've put forward in this proceeding, you don't really
17 know precisely who it is that's fallen within the block
18 ranges. You know that there are certain bills that follow
19 within the block ranges, and you've extrapolated from that
20 how many customers you think may be -- reasonable to assume 15:11
21 may be in those block structures, but you actually have no
22 actual data about who these people are and why it is they're
23 in that block range in the first place.

24 And I understand a what you're saying when you
25 say that from a matter of rate design that you may not

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 necessarily -- I don't mean that you don't care, but rather
2 from a rate design perspective, if you don't care when you
3 set the rates, but then there is that second part which is
4 now we have to talk about the people that are being affected
5 and whether or not there's anything that needs to be done to
6 help them mitigate the impacts that these changes are going
7 to have on them. I'm trying to understand how far the
8 company has gone in resolving what has been referred to as
9 "the other matter".

10 A. MR. MOLLARD: I think -- and we have had some 15:12
11 discussions about this at various levels -- the utility has a
12 responsibility to all ratepayers to follow principled
13 approaches to setting rates. I would put it to you that
14 those same people who have that situation have neighbours who
15 have similar issues who are using other sources of fuel,
16 fossil fuels, for heat, and in the last ten years, they've
17 certainly been exposed to very high signals and have, you
18 know, had to deal with that. So, in that respect, what we're
19 proposing here is no different than somebody else would face
20 on a different heat source. 15:13

21 A. MR. OSLER: And I think when we're dealing
22 with an area that doesn't have access to natural gas -- the
23 vast majority of people even on the WAF system are still
24 relying on fossil fuels for their heating -- the reality is
25 that they've been exposed much more than anybody who happens

1 to be using electric heat, whether they be -- no matter what
2 their circumstances are, to a very severe price change for
3 the same oil fuel price change that we're talking about here.

4 And so, the utility doesn't ignore the
5 reality, but it can say, as a matter of fact, that all of the
6 changes we're talking about here at the most extreme levels
7 are moderate relative to what happened with oil and, frankly,
8 are not even in the same ballpark as what's happening to most
9 people north of 60 who don't have access to hydro systems.

10 Q. Okay. So, I asked -- my question was: What is the
11 company doing to help identify the people who need help? I
12 think the answer was: Well -- at least most of the answer
13 was: Well, relative to people who are on fossil fuels and
14 the history of fossil fuel prices, these people are actually
15 not that badly off generally speaking. Is that the answer?

15:14

16 A. MR. OSLER: That's the type of answer that
17 I think is relevant. I don't think the companies, as a
18 matter of course -- the other company can speak for itself,
19 and it's the one that's dealing with most of these
20 customers -- but I don't know what the policy, framework and
21 options would be for the companies as such to get into jobs
22 that are usually left to agencies of government it deal with.
23 And it's not that the companies haven't got lots to do.

15:14

24 Q. Thank you. I have what I think is a quick question
25 about incremental generation costs. In the October 1st

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 filing, in referring to preferred Option C, obviously you're
2 setting the runoff rate at 71.5 percent of the approved
3 short-term incremental generation costs?

4 A. MR. OSLER: Right.

5 Q. When we talk about those short-term incremental
6 generation costs being approved, can you expand on that? I'm
7 sure it's in the evidence somewhere, but off the top of my
8 head, I don't know where to look.

9 A. MR. OSLER: In the evidence, it's
10 summarized in the application at the very front. There's a
11 table with the short-term incremental costs by rate zone.
12 And also it's dealt with in both companies' Tab 4, exactly
13 the same information.

15:15

14 Q. I'm just saying that for high level, what do you mean by
15 approved.

16 A. MR. OSLER: But I'm just saying for those
17 who want to go and check it at a lower level, that's where
18 you find it.

19 A. MR. BOWMAN: Somewhere in the evidence that
20 I would turn is 4YEC page 23, which has Table 4.6, the
21 incremental cost of diesel generation, which sets out all the
22 calculations behind the value of 27.99 cents as the
23 incremental cost. That is made up of looking at the forecast
24 cost of fuel by community, which is dealt with in the Phase I
25 and approved; a heat rate which is the diesel efficiency for

15:16

1 each community, which was dealt with in the Phase I
2 application and that's used for the purposes of forecasting
3 fuel -- we use the language that's approved -- losses, which
4 would have been reviewed in the Phase I application to come
5 up with an effective run-out cost, and then adding in an O&M
6 amount, which makes up about one/tenth of this value, which
7 is estimated at 3 cents, and I went through that previously
8 yesterday, how that 3 cents is made up.

9 Now, it's tied to costs that have been dealt
10 with in applications and the like, but that 3-cent value, I 15:17
11 guess to be precise, was not necessarily reviewed or approved
12 previously, but all of the matters to do with the diesel fuel
13 is the approved values.

14 A. MR. OSLER: That approach is duplicated in
15 that table for the WAF system, the large diesel, the small
16 diesel communities and Old Crow, and you can see where the
17 averaging of -- all that small diesel and Old Crow, you can
18 see what the effect of the averaging is.

19 Q. Okay, thank you very much. And this is more of a
20 confirmatory question and I'm 99.99 percent know the answer, 15:17
21 but my understanding is that either under Option C or any
22 other option, there's no shifting of revenue-to-cost ratios
23 in the classes because all the options recover 100 percent of
24 the revenue that's actually allocated to those costs under
25 the Phase I -- or I'm sorry, under existing rates?

1 **A. MR. OSLER:** Given the forecast loads,
2 there's no change in the revenue/cost ratios because you
3 have to collect the same revenue.

4 **Q.** Right, thank you very much. Now, with my friend earlier
5 today, you touched on the impact of the interim electrical
6 rebate, i.e., taking off the interim electrical rebate has
7 different impacts depending on which options you're under at
8 the time it gets taken off. I didn't catch the reference
9 where you were looking to show those impacts. I know there's
10 a couple of places where it was talked about. 15:18

11 **A. MR. OSLER:** I was looking effectively at
12 the difference, Tables 2 -- 1 and 2 in the Exhibit D-14
13 because essentially Table 2 is the same information we were
14 looking at earlier but without the IER.

15 **Q.** Right.

16 **A. MR. OSLER:** And it compares all the options
17 essentially, but what it shows you is that if you're at
18 1,000 kilowatt hours a month your bill increase is without
19 the -- if IER comes off, under Option A is 13.2 percent,
20 under Option B is 24.7 percent, under Option C is 21.3 15:19
21 percent, and under the LE preferred option is 14.3.

22 So all of the people that are at that level or
23 less, which is the vast majority of customers, my comment was
24 no matter what the future has for revenue increases required
25 of the system, I know that the impact on the majority of the

1 customers will be less under Option A than it will be under
2 either Option B or C.

3 Q. Now, if I were to translate -- or isolate the removal of
4 the interim electrical rebate -- I keep having to look at the
5 reference. I can't remember that acronym for some reason.

6 A. MR. OSLER: I have trouble myself.

7 Q. If you were to look at that impact in per dollar amount
8 in those same columns, is the dollar amount the same across
9 all three?

10 A. MR. OSLER: The rebate is a flat amount,
11 which was some discussion yesterday, per kilowatt hour up to
12 1,000 kilowatt hours. So, if you have 1,000 kilowatt hours
13 or more, it's a flat amount. At any one level less than that
14 across the table, it's the same amount.

15:20

15 Q. Right. So when you --

16 A. MR. OSLER: It's the same amount but less
17 than the full 1,000 kilowatt hours.

18 Q. So if we look at the 13.2 percent and the 24.7 percent
19 and 21.3 percent, if we're looking at the component of that
20 which it reflects the removal of the interim electrical
21 rebate and translate it into dollar values, it's the same for
22 all three?

15:20

23 A. MR. OSLER: Yeah. And essentially when you
24 compare Table 1 and 2 you'll see that, based on the rate
25 proposals involved, Option A at the level of 1,000 kilowatt

1 hours is going to give a bill decrease of 11.4 percent.
2 Option B is going to make no difference. Option C is only
3 going to give a bill decrease of 3.4 percent. You take away
4 the same amount of subsidiaries from each one of them and you
5 see what you see in Table 3.

6 Q. Well, the percentage changes there. The reason that
7 they're different is because you're working off a different
8 basis because when you're talking the different options in
9 terms of the remainder of the block structure, they have
10 different bases, so --

15:21

11 A. MR. OSLER: No.

12 Q. The same dollar value addition to block 1 under one
13 option versus another represents a different percentage of
14 the total because the underlying base that you're adding it
15 to is different.

16 A. MR. OSLER: I'm not sure that I agree, but
17 you're probably on a wavelength that I'm not catching. Let
18 me put it this way and see if we can -- all the calculations
19 in the table of percentage change are all coming off the same
20 numbers, namely, the "present monthly use" column, second
21 from the left.

15:22

22 So if I'm at 1,000 kilowatt hours a month, all
23 the way across we're comparing the bill to the 113.24 you see
24 there, and that 113.24 is the same number in Table 1. It
25 doesn't change because it is the current bill with the

1 subsidy and everything else. Okay? So there's a standard
2 comparative -- comparison; standard denominator, for those
3 who like math.

4 What is causing the difference is that
5 effectively taking off that subsidy by itself is increasing
6 the bill by about 24 percent in 1,000 kilowatt hours, 24, 25
7 percent, if you did nothing else. If you just said, I -- and
8 I take the bill the way it is right now and I took off the
9 subsidy. It's equivalent to Option B. There's no real bill
10 change under Option B at 1,000 kilowatts --

15:22

11 Q. Before you move on, when you say 24 percent, is it a
12 flat -- I think we just confirmed there's a flat dollar value
13 associated with that at 1,000 kilowatt hours.

14 A. MR. OSLER: Yeah, and that's what it adds
15 up to in percentage terms at a bill of 113.24. It's adding
16 24 percent or 25 percent to that bill.

17 Q. I guess all I really need to understand is that -- if
18 it's a dollar -- there is a dollar value. I think you can
19 calculate it, but I don't need it. Let's say it was -- I can
20 see someone doing some math.

15:23

21 A. MR. OSLER: I have it somewhere in my
22 notes.

23 Q. Okay.

24 A. MR. OSLER: It's 2.66 times 1,000. So it's
25 about \$26, add on the 5 percent, and you'll probably be about

1 27-something for after --

2 Q. So let's take it, for the purposes of the illustration,
3 \$27. It's \$27 under Option A; \$27 under Option B; \$27 under
4 Option C.

5 A. MR. OSLER: Right. And the reason why the
6 percentages differ is because you start under Option A with a
7 bill reduction and under Option B you have none.

8 Q. Thank you. We are on the same wavelength.

9 A. MR. OSLER: Good.

10 Q. Thank you. Now, at CW-14 you were asked about
11 Bonbright, and one of the questions I think within that
12 interrogatory was to talk about the application of
13 Bonbright's ten attributes to the various options that were
14 before the Board at that time, but of course when that
15 interrogatory was asked Option C wasn't tabled; correct?

15:23

16 A. MR. OSLER: Correct.

17 Q. Now, we did have a conversation already this morning
18 with Ms. Kellgren in general about Bonbright as it applies to
19 Option C. Are you satisfied with that in terms of what you
20 were being asked in that interrogatory response, or should I
21 ask you for an undertaking to do the same analysis as was
22 asked in the interrogatory for Option C? It's an optional
23 IR -- or an optional undertaking, I should say.

15:24

24 A. MR. OSLER: Is the question in CW-14 that
25 you're giving us this option on, is that (i) -- (h) and (i),

1 or is it earlier --

2 Q. I believe so. I haven't pulled it out.

3 A. MR. OSLER: I just want to know where we
4 start with this option. Mr. Bowman?

5 A. MR. BOWMAN: I'm assuming you're responding
6 to parts B and C of the question, or you're referring to, in
7 which it's asking about Bonbright's ten attributes satisfied
8 by or alternatively not satisfied by Option A. And there's
9 about a page of response there, Yukon Energy's response.

10 And, in short, there is almost no difference
11 in talking about that in terms of Option A or Option C when I
12 go through it, and I just quickly reread the page, but there
13 would be basically no change.

15:25

14 Q. Okay. Thank you. That's sufficient for my purposes.

15 You've talked a bit about the seasonal rates
16 and time-of-use rates, and I just wanted to follow up a
17 little bit. And I found it interesting when you talked about
18 seasonal rates in particular, because my understanding, for
19 example, is that at least -- if we set aside the diesel in
20 the communities, what we're most interested in is the use of
21 diesel at peaks and trying to avoid that?

15:26

22 A. MR. BOWMAN: No. Today on the systems
23 diesel is effectively only used for peaking, but when you get
24 into the way the system operates, diesel for peaking is
25 effectively an entirely different mindset. It's an entirely

1 different type of thinking. It effectively simply relates to
2 the fact that you have only so many hydro turbines, hydro
3 wheels, that can run, and at certain times of the year at
4 certain moments of the day the load on the system will be
5 more than the sum of those turbines you can dispatch, and you
6 have to turn on a diesel engine. It has nothing to do with
7 water. It simply has to do with installed capacity. And it
8 leads to a relatively small quantity of diesel needed for
9 peaking purposes.

10 That's entirely different than when we spend 15:27
11 most of our time talking about diesel as a cost driver on the
12 system where what we're really talking about is what would be
13 referred to as baseload diesel, and we spent some time on
14 this back in the resource plan hearing. Baseload diesel is
15 not about the instantaneous peak. It's not about the
16 megawatts. It's about the amount of water you can store and
17 the fact that I can choose to use this water now or I can
18 choose to use it later, but if I have too much load, using it
19 now means I can't use it later and I'll have to run diesel.

20 And so when you're into this concept of diesel 15:28
21 on the margin and the diesel that matters, it is not the
22 moment you use it, it is not a peak consideration. It's an
23 issue of needing to use up some water to supply some load,
24 meaning it's not there later and, gee, I'm going to have to
25 use diesel to supply it.

1 Q. Well, that's the part that I found interesting, because
2 it was suggested that presumably on the view that -- or from,
3 I guess, the apprehension that it was peaking diesel that you
4 were seeking to avoid, that you could have a different rate
5 structure, at least in theory, based on seasonality, where if
6 you picked a month or two or three where you're pretty sure
7 or almost guaranteed you're not going to have to run diesel
8 for peaking purposes, you could have a different rate
9 structure for that, but your response says: Well, no, not
10 really because the energy consumption in that month, even
11 though you may not use diesel at all, may force the use of
12 diesel in the following month.

15:29

13 A. MR. BOWMAN: That's correct, that's the
14 premise for diesel on the margin, and it's the reason why
15 somebody can come along and conclude that diesel's on the
16 margin even though the diesel engines aren't running. The
17 diesel's on the margin when in that month you're using water
18 that's going to mean it's not there later and diesel is going
19 to have to run later.

20 We haven't that for 10 years or 12 years
21 because using water now simply means that you won't go quite
22 as low on the reservoir but the reservoirs wouldn't hit the
23 bottom anyway because there's not enough load to use all the
24 water. So in the surplus hydro situation, you've got more
25 than enough water to carry you through the winter.

15:29

1 In a constrained situation, in a diesel on the
2 margin situation you don't have enough storage to carry you
3 through the winter. And in the ultimate diesel on the margin
4 type of case like when the Faro Mine was on, even using water
5 in July meant it was taking it from storage, so that it's not
6 there when you need it later on, or possibly when the diesel
7 engines were running in July, depending on the particular
8 situation.

9 But that's the difference between the peaking
10 and the diesel on the margin concept.

15:30

11 A. MR. OSLER: And Mr. Bowman's underlying
12 type of thinking that goes into the situation when you really
13 have baseload diesel of a very material level, the questions
14 that were there earlier could be a bit confusing or the
15 answers could be a bit confusing -- I'm not blaming the
16 questioning -- because the concept was, well, might there be
17 a slot of time when we were tending to run a lot of baseload
18 diesel, using Mr. Bowman's analogy, in the winter over a
19 large series of months but not in the summer. And we weren't
20 busy wasting water. We were, let's say, Whitehorse -- at the
21 Whitehorse area, we had water that we were spilling if we
22 didn't use it, because we can't store it, and it wasn't
23 affecting magically somehow our ability to store it.

15:30

24 Hypothetically that -- you know, I can
25 conceive of situations where that may exist, and my point was

1 despite having conceived of those situations that might
2 emerge, it didn't seem to me that it was worth trying to
3 design a rate system around it because it may be very -- if
4 it does occur, it will probably be a temporary event between
5 either a period of surplus or a period of baseload of the
6 type Mr. Bowman's talking about.

7 Q. Can you remind, because I certainly can't remember, what
8 the forecast is in terms of when diesel is going to be on the
9 margin in the sense that we are worrying about in one month
10 using up water that may force diesel in the next?

15:31

11 A. MR. OSLER: Two things. We've got evidence
12 now from -- this is all from the Carmacks from the Mayo B
13 hearing. One of the things that's answered in an IR and
14 repeated in this hearing is that when we look at the power
15 benefits models now we can see that, even under 2009 loads,
16 on a long-term average hydro availability basis, we probably
17 should be assuming a need for about 4 gigawatt hours of
18 diesel, which we didn't have in the GRA because the average
19 over all the years, including the draught years, would need
20 us to plan on that basis if we're going to put enough money
21 aside in the diesel contingency fund to pay for the bad
22 years.

15:32

23 That's a new piece of information that we
24 didn't have for the GRA but we did have at the time of the
25 Mayo B hearing. That isn't really diesel in the margin as

1 much as trying to look after your long-term averaging,
2 draughts and everything else. Low water conditions are
3 what's forced us to stop selling secondary sales right now.

4 Secondly, the whole Mayo B hearing was saying
5 that by 2012, even if we don't have the Carmacks Copper mine,
6 we will have baseload diesel that is material on the WAF
7 system, given the loads that are forecast at that time, even
8 with Mayo B. And with any other mine added, Carmacks Copper
9 or any of the other ones that people are talking about, it
10 would be a pretty material baseload diesel level, the numbers
11 of which are in the record, I'm not going to try and do from
12 memory.

15:33

13 The Board has sort of given its report based
14 on that evidence, and I think that gives you a pretty good
15 clue as to where -- how soon material baseload diesel could
16 be relevant to the new integrated WAF/Mayo grid.

17 Q. Okay.

18 A. MR. OSLER: And I apologize if this makes
19 it more complicated, but we're learning in a way as we go
20 along with the system where you're close to the margins,
21 where you're, you know, near your hydro long-term average
22 type of levels, which is what we are now. In the old days,
23 and I apologize for the reference -- maybe I'll reference the
24 '80s if that helps, you either had the Faro Mine on, in which
25 case you were so far past your long-term average levels that

15:34

1 you were -- that it didn't matter whether it flood, draught,
2 whatever, you were into the diesel world. And when the
3 turbine was off, you were so far into the range of surplus
4 hydro that you didn't tend to get distracted by that type of
5 thing either.

6 When you're somewhere in the middle, a few of
7 these concepts that you can ignore in those extremes become
8 quite relevant. And so when we would talk about something
9 like diesel on the margin, it is becoming part of the
10 language that we want to be careful with; is we mean diesel
11 on the margin -- tend to mean diesel on the margin at average
12 water flows.

15:34

13 You may still be in that condition where water
14 matters and I've got to preserve my water during draughts.
15 We have that now. That's why secondary sales are off. But
16 it's not on the margin at average water flows. And that goes
17 to Mr. Osler's comment about to protect in any draughts you
18 probably should be thinking about having some money being put
19 aside because in draught years you can -- even at today's
20 load levels, you can get really clobbered by diesel. But at
21 average water flows, you're not really using diesel.

15:35

22 A. MR. OSLER: For those who want more
23 information, it's in YUB 15.

24 Q. Thank you. Now, you were asked a few questions about
25 time-of-use rates. And as part of the answer to CW-25(c),

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 you were asked -- well, the answer was, in part:

2 "In the event TOU rates is intended to
3 address varying rates daily (e.g., on
4 peak 23 versus off peak), there would
5 be major changes required in metering
6 infrastructure. It is not presently
7 possible to meter most accounts in this
8 manner."

9 I just wanted to clarify, because I'm from Toronto and I have
10 a smart meter on my house, and we have obviously time of use 15:36
11 rates in Toronto, which is based on use throughout the day,
12 and we were wondering what you meant by "It is not presently
13 possible to meter most accounts in this matter." Do you mean
14 that the technology doesn't exist or that you don't have
15 those meters installed on houses and other customers right
16 now and the costs would be somehow prohibitive?

17 **A. MR. MOLLARD:** We currently don't have the
18 infrastructure required on our system.

19 Q. So it's possible; it's just that you don't have those
20 meters. 15:36

21 **A. MR. MOLLARD:** That's correct.

22 **A. MR. OSLER:** We have visited Toronto
23 occasionally.

24 **A. MR. BOWMAN:** Well, "possible." That's one
25 technical issue with it. The other is that for all the

1 reasons we're talking about, you won't find -- unlike
2 Ontario, or thermal-based systems, you won't find an
3 underlying cost rationale on this system or on hydro-based
4 systems for different pricing through time of day. That's
5 why you won't find those types of rates, say, in Manitoba or
6 Newfoundland or somewhere gaining a lot of traction or being
7 a lot of interest, or those utilities making a big investment
8 in smart meters, because you don't have an underlying cost
9 rationale for designing rates that way in any event, and the
10 smart meter investment is certainly not cheap.

15:37

11 Q. No. No, it's not. I was in that proceeding.

12 But I just want to understand a little bit
13 more about the difference in rationales for the time of use
14 rates, because my understanding of the Ontario system is, at
15 least in Toronto, the time of use is based on a daily peak
16 period, one for the summer and one for the winter, and I
17 think in the summer the daily peak is somewhere in the order
18 of 4 o'clock in the afternoon, which is when non-baseload
19 generation is required and imports cause prices to go up, and
20 that's why we pay higher prices at that time. Is that your
21 understanding? Did I get that right? Because I can't give
22 evidence. Generally speaking?

15:38

23 A. MR. OSLER: That's what's going on.

24 My recollection, the last time I was in an
25 Ontario hearing, which was a long time ago -- it was in the

1 '80s, the '70s even -- they peak in the summer at that time
2 because of all the air conditioning and stuff, and so the
3 seasonality is bit different than up north, and the rationale
4 for time of use, which they were starting to talk about at
5 that time, was based on the type of factors you were
6 describing.

7 Q. Thank you. And that's different from the Yukon
8 presumably, in part -- and I'm obviously going to ask you to
9 elaborate, but are you telling me that you don't have a daily
10 time in the same way where the system peaks?

15:38

11 A. MR. OSLER: No, that's not the -- you can
12 talk about -- no, let me do it at a general level -- and same
13 issue in Manitoba -- just to try and see if we can keep it
14 simple.

15 There are peaks daily, maybe two peaks in a
16 day, if you've got to be too facetious, on some of these
17 systems. And there's a seasonal -- Manitoba and Yukon would
18 be similar in the sense that their peaks are still in the
19 winter.

20 If you're on a grid, the game is a lot
21 different because you sell and buy power. Yukon doesn't have
22 a grid in terms of interconnection.

15:39

23 So, Mr. Bowman, take it from there if you want
24 to add something else. But is that what you need in terms of
25 business?

1 Q. I would presume, though, that part of the difference
2 would be that at the daily peak, the analogy would be on your
3 worst peak where you have to get diesel, where you have to
4 use diesel generation, that would be similar to the example
5 in Ontario where they have to purchase power at the higher
6 level.

7 A. MR. OSLER: In the old model that they used
8 in that hearing, way back then, and fancy American
9 consultants working for Ontario Hydro, it was three levels of
10 generation: baseload, intermediate, and peakers. And the 15:40
11 whole concept was that if you charged people more for the
12 peak periods, then they would pay for these extra costs that
13 come from either buying power from outside or anything else,
14 and it all made logical sense.

15 The problem that Mr. Bowman is getting at is
16 if you look in the Yukon, just to keep it again simple, we
17 have the hydro and then we have the diesel. So we don't have
18 that sort of intermediate range, to start with. We can't
19 sell or buy power outside. And it's sort of like a "switch
20 is on or switch is off" type of a game. We seem to either 15:40
21 have a surplus, or we have a baseload diesel. You have
22 baseload diesel all the time where you're just affecting
23 storing water?

24 It's not the same as Ontario at well. I can't
25 say -- no matter when I consume it, on the margin I'm

1 affecting diesel, either because I have storage of water or
2 something else. I can't get the exchanges to outside of the
3 system or bring power in. I haven't got that flexibility.

4 That's the essence of why we think it's a bit
5 limiting up here to think of it this way. But even my
6 colleagues in Manitoba don't think it's a very good idea for
7 time of use, for reasons that I'm not as much up to date on
8 these days.

9 Q. When you say that, you mean in Manitoba.

10 A. MR. OSLER: Yeah, I mean for the Manitoba
11 system.

15:41

12 Q. Okay.

13 A. MR. BOWMAN: And even more so than Manitoba,
14 it's something that can -- the Newfoundland system, which is
15 hydro based but non-interconnect -- Manitoba can get caught
16 in some other issues because it's got some interconnection
17 capability. It's got a fair bit, but it doesn't have a lot
18 of flexibility associated with it.

19 The point is as simple as this: If you're in
20 Ontario and you have a choice of when you do your laundry, if
21 you do your laundry during the day and someone has to turn on
22 a very expensive gas plant to provide that kilowatt hour,
23 there's a big cost, and there's no hangover effect. As soon
24 as the cost is paid, we're done.

15:41

25 If you're doing laundry at night and they're

1 able to ramp up a bit more on a cheap coal plant, you pay a
2 lower cost, and there's no hangover effect. As soon as it's
3 done, we're over.

4 If you're doing with water, though, and I'm
5 sitting running a system that fundamentally has hydro, and
6 you do your laundry during the day and you use up some of the
7 water, and the people aren't there saying, "Well, darn it, if
8 only I could get him to move to night and they use the water
9 then." It really doesn't matter. The water's still gone.
10 And that's the hangover effect. That's the residual
11 carryover that arises on hydro systems where you have a
12 limited quantity of water, and it doesn't arise on the
13 thermal systems where you have, in theory, an infinite supply
14 of fuel.

15 Q. Thank you. And just to wrap this section off, at 7-5 of
16 the application, you talk about seasonal time of use rates,
17 and part of the answer was:

18 "The implementation of seasonal rates
19 would only be considered in light of
20 appropriate studies to indicate some
21 form of sustained cost-based rationale
22 that provided benefits in excess of the
23 costs and administrative issues of
24 implementing a more intricate or
25 complex rate structure."

15:42

1 I understand that we've talked about some of the issues that
2 would have to be wrestled with in that type of "appropriate
3 studies," but I want to know, one, have the utilities
4 undertaken to begin any kind of study of that sort? I
5 wouldn't want to presume.

6 **A. MR. MOLLARD:** **Not at this time.**

7 **Q.** Okay. And are there any plans to do that?

8 **A. MR. MOLLARD:** **Not in the short term, no.**

9 **Q.** All right. Thank you.

10 **MR. BUONAGURO:** I didn't know when the Panel
11 wanted to have a break or not.

15:43

12 **THE CHAIR:** The scheduled break is for
13 3:30, if everybody is still okay with that.

14 **MR. BUONAGURO:** That's fine for me. I just
15 wasn't sure.

16 **Q.** Now, you've had a couple of discussions about DSM in
17 particular, and I'm not going to -- try not to revisit the
18 substance of what you've already gone through, but I wanted
19 to ask the panel to address specifically any programs it has
20 contemplated, advanced, so on and so forth, with respect to
21 reducing peak. And I understand we might get back into some
22 of the discussion you've had already about the difference
23 between diesel on the margins being a concern versus peak
24 demand being a concern. But I am interested in what the
25 company is or isn't doing with respect to addressing peak

15:44

1 load and reducing that in particular.

2 A. MR. OSLER: When you say "peak load,"
3 because this panel is sort of in a cost of service
4 environment, is thinking capacity benefits versus energy
5 benefits. Are you, in practice, talking about reducing the
6 amount of diesel we have to run during the middle of winter?
7 Is that sort of what you're getting at?

8 Q. Yes. I'll give you an example, again from Ontario. We
9 have peak saving programs where, for example, people have
10 devices that are attached to their air conditioners which
11 automatically shut the air conditioner off at the peak,
12 thereby avoiding the need for some peaking resources, and
13 that's the type of program I'm thinking of.

15:45

14 A. MR. OSLER: The industrial rate schedule
15 that has been approved and came out of the Order-in-Council
16 has a peak shading element to it that Minto hasn't exercised,
17 but it was negotiated and included as a rate method of giving
18 them an option to help us save peak requirement in the middle
19 of winter. It was a pure capacity focussed thought process.
20 So that's one example I can give you.

15:46

21 But I would think that the focus of DSM
22 discussions that I've heard about in the past and currently
23 is more focused on just ways to save the energy use that
24 would otherwise be required on the system because the biggest
25 requirement for cost drivers in the future is energy related.

1 And I think you heard people talking about people that are
2 meeting and discussing it and what Mr. Mollard went through
3 earlier, but I don't think -- this panel doesn't have
4 anything particularly more to say or of use to you in terms
5 of program specifics. I think it's a few months away coming
6 out of the process.

7 Q. All right. Thank you. And this is one of my leftover
8 questions related to behaviour. Do the utilities, and I
9 guess in this case YEC, have any specific evidence to show
10 that implementing block rates will change Yukon consumer
11 consumption habits? I think you talked -- this is back to
12 talking about elasticity and people's response. But is there
13 any evidence to show that there will be any kind of response
14 in particular as a result of the integrated block rate
15 design?

15:47

16 A. MR. BOWMAN: There's no study that someone
17 can point to and say "This house will reduce by that kilowatt
18 hours or" anything of that sort, no.

19 Q. Thank you. I'm going to reference CW-16(h) which
20 provides an example of behaviour of a 1500 kilowatt hour
21 customer. I'll read it just for the record. I think you may
22 have referred to this example already once today. But it
23 says:

15:47

24 "... if a 1500 kilowatt hour customer
25 reduced their load to 1250 kilowatt

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 hours per month, under present rates
2 their bill would be reduced by \$32.67
3 (including all taxes and riders), while
4 under Option A rates their reduction
5 would be \$38.82, an increased savings
6 of 18.8 percent. This type of effect
7 can notably improve the potential for
8 the customer to invest in energy
9 efficiency initiatives and related
10 measures and see economic returns."

11 Obviously the numbers change under Option C; true?

12 **A. MR. BOWMAN:** True, the numbers change under
13 **Option C.**

14 **Q.** But does the company have any more specific information
15 about the 1500 kilowatt per month customer or customers as a
16 class? For example, do you know what those customers use in
17 terms of electricity for space heating?

18 **A. MR. MOLLARD:** We do not.

19 **Q.** Is that a question I should ask YECL?

20 **A. MR. BOWMAN:** I think you'll find that you're
21 going to get the same answer whether you ask YEC or YECL or
22 any of the other utilities that I've dealt with. I certainly
23 sat in a Manitoba Hydro hearing where they were pointing out
24 the difficulties of, even on their system, figuring out who
25 is an electric heat customer, where they have an extra

15:49

1 challenge that there's actually a different tax rate
2 depending on if you're a person who uses electric heat or
3 not. And they've had to have that implemented in a manner
4 that says if you're capable of using electric heat you get
5 the lower tax rate, whether you use it or not, because you
6 can't know. Small heaters plug into a regular outlet in the
7 house. Some people have large service, but it's not to heat
8 their house. It's because they have is pottery kiln
9 something of that nature.

10 Q. If I were to ask you further questions about the
11 specifics of that type of customer, I presume the answer is
12 similar: You don't have that information.

15:50

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

14 Q. Thank you.

15 MR. BUONAGURO: I can tell you my notes come to
16 an abrupt end, so I'm just going back over to make sure I
17 didn't lose something.

18 THE CHAIR: Mr. Buonaguro, would this be a
19 good time to take a bit of a break?

20 MR. BUONAGURO: I'm done. Those are my
21 questions.

15:50

22 THE CHAIR: Okay. I think what we'll do is
23 we'll take the break now before we start with the next
24 intervener inventory if that's appropriate. Thanks. So
25 we'll return in 15 minutes.

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 (ADJOURNMENT)

2 THE CHAIR: So, Mr. Buonaguro, did you
3 want to continue?

4 MR. BUONAGURO: If the Panel may recall, I said
5 I had a Rider D question that I was going to ask.

6 THE CHAIR: Right.

7 MR. BUONAGURO: I completely forgot.

8 A. MR. OSLER: Could we -- before you got
9 that, since you've resurfaced... Mr. Mollard got some
10 information on one of the questions you had asked during the 16:09
11 break beforehand, and he got some information, and I -- if
12 it's okay with the Board -- I mean, it's just information on
13 what YEC does, but he didn't have it, and he's now been given
14 it --

15 A. MR. MOLLARD: Yes.

16 A. MR. OSLER: -- on a couple of questions you
17 were asking him.

18 A. MR. MOLLARD: Yes. So I did have an
19 opportunity to speak to some other Yukon Energy staff, and
20 just with respect to customers who may have financial 16:09
21 difficulties, if they do get themselves in a spot where
22 they're having trouble making their bills, our internal
23 policy for our customer service staff is that we do refer
24 them to the appropriate social service agencies to seek
25 assistance. And in our communities that we serve, it's also

1 commonly the First Nations we will refer them to for
2 assistance with their issues.

3 The other point I wanted to mention was just
4 with regard to programs to help influence the peak. We
5 started a program, I think it was last year. In the winter
6 months, we put a chart on our website, and it's updated on a
7 weekly basis, and it will show for each day when the peaks
8 are. And if that -- if in any one of those days there's
9 diesel forecasts, it will indicate that on the chart so that
10 ratepayers who are looking at that then would have the option
11 to say, okay, well, I can change my behavior so that
12 Yukon Energy can avoid that diesel. So it's one little thing
13 that we do do to help try and move that peak around.

14 Q. Thank you. And my one -- just one question on Rider D.
15 I think it's a follow up to YUB No. 19 where you were asked
16 about the merits of the Rider D application. And I'm
17 essentially asking the same question. What is YEC's position
18 on the merits of the proposal? I believe, in fairness, the
19 interrogatory essentially had YEC deferring until the hearing
20 its answer.

21 A. MR. BOWMAN: That's correct. And that was
22 for a very specific reason that concurrent with the Phase II
23 hearing, YECL has a separate application for Rider D to which
24 YEC is not a party to that application. So we're not here
25 proposing a Rider D, nor having any particular application

1 with respect to that matter. To the extent that
2 Yukon Energy's involved, I'll let counsel address later the
3 standing and role.

4 Your question, though, is about the Rider D
5 application, and it's linked to rate design, and so let me
6 try to deal with it in the context of the wholesale rate.
7 The structure of the wholesale rate in Yukon is very similar
8 to what Mr. Osler was setting out about the structure: the
9 industrial rate in Yukon and, indeed, the structure of the
10 retail rates. There is a provision that when diesel is
11 actively being used that the wholesale rate will effectively
12 be a two-block rate rather than a one-block rate. It will
13 have a certain price for the first 90 percent of power at the
14 GRA forecast, and above that it will be at a different rate.
15 At the -- that's the net effect of it. Practically what it
16 means is that the two utilities will reconcile actuals versus
17 forecasts, and they will do an adjustment based on,
18 effectively, the price of the diesel generation so that if
19 YEC's load is higher, YECL's load from YEC on WAF is higher
20 than forecast at a time when diesel is being used, the extent
21 to which YECL's load grew will be charged to them at the
22 diesel price not at the average hydro price. And if their
23 load shrinks compared to their forecast, they will,
24 effectively, be credited back the diesel that they saved.
25 Exactly the same as the industrial customer stepped rate

16:12

16:13

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 would be applied. That's the way the ERA works. And that's
2 in the wholesale rate. It's been there since the early '90s.
3 Sorry.

4 Q. You're relieved of that undertaking.

5 A. MR. BOWMAN: Okay. And it's been applied
6 through all the periods where the Faro Mine was on for many
7 years, and it has not been applied in about the last ten
8 years because it doesn't get triggered when diesel is not
9 being used on a margin. It was also the matter of a separate
10 board order, which was an agreement between the two utilities
11 as to how to apply it.

16:14

12 When at one point there was some debate about
13 how to apply the -- this provision, and there's a -- and I
14 forget the board order number. 1999-6 perhaps. It's 4. I'm
15 seeing -- 1999-4 is a separate board order on this matter.
16 Rider D is a different item. It is something YECL is today
17 proposing, which is linked to, effectively, well, what
18 happens when I have to pay this ERA or when I get credited
19 this ERA? Don't I just defer those amounts and put them to
20 customers? And all the things that we would note is there's
21 no existing provision for a Rider D. It hasn't been there;
22 it hasn't been there when the ERA's been applied in the past.
23 And the effective deferring any charges under the ERA is to
24 defer to and apply directly to customers charges or credits
25 that occur to YECL because its load varied.

16:14

1 When YEC's load varies, at this point in time,
2 it bears the risk of needing to supply that with more diesel
3 or less diesel when it's -- when it's an industrial customer
4 or a retail customer. When YECL's load varies, the effect of
5 the Rider -- ERA is to ensure that it bears the risk with
6 respect to load variance for its customers. And that
7 provision is -- like I said, it's operated without having to
8 then say, now I'm going to take that cost or credit that
9 arose as a result of that load variation and defer it off and
10 flow it through to customers.

16:15

11 I think it's fair to say that in part because
12 it's new and in part because it's focussed only on this one
13 item of load variation, Yukon Energy's view has been that
14 load variation risk, load variation costs are a material item
15 for utility regulation. They spent -- a lot of time and
16 energy is spent figuring out the appropriate way to deal with
17 load variation. And Yukon has one particular approach to
18 that. It's possible that it's worth spending some time
19 thinking about how to evolve the way that load variations
20 lead to flow-throughs to customers as opposed to and lead to
21 a need for expensive new GRAs if that load is driving a
22 utility's return equity down, and so, therefore, it has to
23 come back for a big new GRA. And it goes to the core of sort
24 of the regulatory framework, regulatory costs and an
25 efficient process. And our concern with something like the

16:16

1 Rider D proposal was that it seemed to -- less than
2 comprehensive means to deal with that type of problem. So in
3 brief --

4 Q. To put it in layman's terms, it sounds like you see the
5 application as cherry-picking one issue out of possibly many
6 in respect of load variation and load risk, and it's not
7 appropriately dealt with in that manner?

8 A. MR. OSLER: I think -- I don't want to get
9 into two -- two utilities are trying to take the Board's
10 direction and their own objectives and trying and work
11 together, so I'm not going to use language like
12 cherry-picking or something like that.

13 Q. Okay. Taking one issue out of the context?

14 A. MR. OSLER: I think that we have -- our
15 concerns at a very layman level would be this is a material
16 change compared to what was there before, and we're not
17 convinced that it's merited or consistent with principles.
18 It may be that if you're really worried about load variation
19 from what was forecast, and you want to use it to avoid
20 having to have expensive hearings, that we should discuss
21 this in a broader context and see if it has merit, but it
22 shouldn't be done solely for something limited like this, in
23 this one instance on this one system, and not paying
24 attention to it on all systems and for both companies. It is
25 that type of an issue in our minds. It's not -- it's got no

16:17

16:17

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Buonaguro

1 historical roots, and it's got no particular rationale that
2 we can see. Because it's called "relationship to diesel,"
3 people seem to get it in their mind confusion with pricing.
4 It's got nothing to do with that. It's done at the GRA
5 price.

6 And in answer to the Board's question that you
7 referenced, YUB-19, you know, it probably, therefore, under
8 conventional thinking, would be part of their risk that they
9 take on in order to get a return. It doesn't mean that we're
10 saying slam the door; let's not talk about it. We're just 16:18
11 saying, if you're really interested in talking about how to
12 deal with load variation, risk, then let's talk about it as a
13 broad issue for Yukon and what are the options. But we don't
14 see -- we don't think it helps at the moment to try and
15 discuss it in a rate-making context, and we don't think that
16 it has, as I say, historical roots, which some may have
17 thought it did, but I don't think it does.

18 Board order 1999-04 was a settlement of
19 disputes between the two companies over the application of
20 this ERA, which had been there since 1993, I believe, as 16:19
21 approved by the Board then and again in 1995, '96. And for
22 all of the issues that were involved, none of them involved a
23 discussion of deferral accounts or riders. They just
24 involved the application of the words and who should pay who
25 what between the two companies. And we settled it, and I

1 think we all understand the words and what we've said our
2 submission is. The ERA words probably should be written
3 today to reflect that settlement such that it's very clear
4 that it only operates when it's on the margin, as we
5 discussed it, and it only applies to -- it applies unlimited
6 when the volume is higher but only 10 percent down when the
7 volume is lower, just like we agreed when we finally had the
8 settlement that that's what it meant.

9 So we support that, which is part of the
10 Rider D application, but we can do that without the Rider D. 16:20
11 We can solve that problem.

12 The rest of it we think if somebody really
13 thinks it needs to be paid attention to, then let's pay
14 attention to it together in a broader context, and, you know,
15 you build on it that way without just focusing on the
16 settlement.

17 Q. Thank you very much for that opportunity.

18 THE CHAIR: Just before we start with
19 Mr. Maissan, I just want to mentioned that we're planning to
20 go a little bit later tonight. I understand that counsel and 16:20
21 the other intervenors have agreed to that. I'm not sure how
22 late we'll go, but we'll definitely take a break at 5 o'clock
23 to allow people to -- well, have an opportunity to stretch.
24 And I know we won't go later than seven because we have -- we
25 don't want the court reporter to have to go too late, and

1 there is a commitment that I have to -- not I have to meet
2 but has to be met, so we won't go beyond seven. But we'll
3 just play it by ear to see how far we get along. So I'll
4 turn it over to Mr. Maissan.

5 MR. MAISSAN CROSS-EXAMINES THE PANEL:

6 Q. MR. MAISSAN: Thank you, Mr. Chair.

7 I have a couple of questions that follow up
8 from other intervenor questions for the Panel before I get
9 into my own. The first is in regards to Order-in-Council
10 1995-90, I think the number is. I was wondering whether
11 there was anything in that Order-in-Council that would
12 prevent the companies from instituting the three rate blocks
13 in the hydro zone and only having two rate blocks in the
14 large, small, and Old Crow diesel zones?

16:21

15 A. MR. OSLER: I think the conclusion was that
16 it would not allow that on the grounds that the wording says.
17 For the retail customers we're talking about, non-government
18 retail customers, as defined. The rates shall be the same
19 throughout Yukon for both companies. And the only exception
20 is for the runoff rate. So given that wording, the
21 interpretation's been if we have three blocks in one place, I
22 don't know how we could justify recommending to the Board,
23 given those rules, not having three blocks everywhere else.
24 And every block has to be -- have the same rate throughout
25 Yukon except for the runoff block.

16:22

1 Q. Every block has to have the same rate. So you couldn't
2 have Block 1 and 3 in the diesel communities and Blocks 1, 2,
3 and 3 in a hydro zone?

4 A. MR. OSLER: Because I don't know how we
5 would be complying with the same rate for that second block
6 throughout Yukon if we did that. I don't know how we'd meet
7 that test in the Order-in-Council.

8 Q. Thank you. The second question relates to -- I think
9 it's your Tab 4 YEC. The calculation for diesel cost. Is
10 that diesel on the margin, or is that for base load diesel? 16:23
11 I know obviously for Watson Lake it's their base load diesel,
12 but for the WAF and Mayo-Dawson system -- I think it's
13 Table 4.6.

14 A. MR. BOWMAN: Yeah. The way the question was
15 asked, diesel on the margin versus base load diesel --

16 A. MR. MOLLARD: Peaking diesel --

17 A. MR. BOWMAN: -- would be sort of the same,
18 yeah.

19 Q. The peaking diesel. Let's separate that --

20 A. MR. BOWMAN: That's fine. 16:23

21 Q. -- so I understand.

22 A. MR. OSLER: And the rationale being -- just
23 so everybody in the room is on the same page -- that if it
24 wasn't confusing enough that we have diesel capital and
25 diesel energy; we have different types of diesel with

1 different types of efficiencies. The diesel that's bought
2 just for peaking purposes will not cost as much as one bought
3 for baseload purposes and will have a different efficiency.
4 Sorry. Anyway, keep going.

5 Q. You anticipate very well.

6 A. MR. OSLER: I've probably got it all wrong,
7 but that's the principle.

8 A. MR. BOWMAN: The premise is that you have --
9 if you have a unit that's going to provide peaking supply, it
10 operates on and off, and that's more expensive than turning 16:24
11 it on and letting it run nice and continuous and stay warmed
12 up and of those sorts of things. It doesn't go to the fuel
13 price. It goes to the efficiency. And the efficiencies that
14 are used there are the approved efficiencies from the 2009
15 revenue requirement. And, of course, because 2009 was not a
16 year with base load diesel, these would actually be more
17 representative of peaking efficiencies than baseload
18 efficiencies.

19 A. MR. OSLER: For WAF.

20 A. MR. BOWMAN: For WAF, not for the large 16:24
21 diesel or Old Crow or small diesel.

22 Q. So the question is -- then the follow-up question is if
23 you were in a situation where diesel was on the margin and
24 you were running baseload diesel, how would the efficiencies
25 change, the improved efficiencies change the average cost of

1 diesel? Presumably something lower than what's in that table
2 now?

3 **A. MR. BOWMAN:** They would be somewhat lower.
4 We also noted that compared to fuel prices at the time the
5 GRA was approved, they're also slightly lower, so those were
6 the type of factors that perhaps help justify why you can
7 talk about a rate today that's not 100.00 percent of the
8 diesel price calculated in this table.

9 Q. Thank you. Do you have any idea what percentage of
10 customers on the grid systems have more than one heating
11 source in their homes, residential customers?

16:25

12 **A. MR. MOLLARD:** We do not.

13 Q. You do not. Would you accept that those who have
14 electric heat or some of those who have electric heat might
15 have other heat sources in their house such as a wood stove?

16 **A. MR. MOLLARD:** I know I do. Beyond that, I'm
17 not sure I can say.

18 Q. Right. Well, you'd probably be a good example to
19 discuss this with, then. These customers presumably have an
20 ability, then, to switch based on electrical price from using
21 less wood to using more wood. Would you agree?

16:26

22 **A. MR. MOLLARD:** On that basis, yeah, I would
23 agree with that.

24 Q. Yes. So on that basis, would you not then believe that
25 there is at least some short-term elasticity in consumption?

1 **A. MR. MOLLARD:** For those individuals I could
2 accept that. It would be pretty hard to measure though
3 without the data to support.

4 **Q.** So there would be some individuals, cumulatively. You
5 can't predict ahead of time, but theoretically there probably
6 is some short-term elasticity; would you agree?

7 **A. MR. MOLLARD:** **Yes.**

8 **Q.** Thank you. Going to my questions now. And I'm
9 referring to City of Whitehorse Question No. 25(a). Yukon
10 Energy states that "Winter energy does not have a materially
11 different cost profile in winter than in summer." And I was
12 wondering whether it is not true that the water inflows into
13 the reservoirs that make up the hydro plant occur during
14 summer rather than in winter. Is that not correct? The bulk
15 of the water inflows is in the summer?

16:27

16 **A. MR. BOWMAN:** **The water inflows occur**
17 **primarily in the summer.**

18 **Q.** Right. And then the water storage facilities that are
19 built into these hydro plants and the additional generating
20 capacity that was installed at plants such as Mayo and
21 Aishihik in particular relative to the annual average water
22 availability then allows for this water storage from the
23 period of inflow to the period of need in winter. Is that
24 not correct?

16:27

25 **A. MR. BOWMAN:** **Yeah, the function of water**

1 storage is to permit a shaping of the water flows so that the
2 water arises when you need it, which tends to be in winter,
3 notwithstanding the fact that nature tends to give it to you
4 in the summer.

5 Q. In the summer, right. So some portion of the cost of
6 these plants then were incurred so that this energy, that
7 water that becomes available in summer, is available as
8 energy during the wintertime. So is there then not some cost
9 that is incurred when these plants are built or was incurred
10 when these plants were built so that the energy could be
11 available in winter and, therefore, is there not some portion
12 of the cost which is or was essentially different because we
13 wanted that energy available in winter?

16:28

14 A. MR. BOWMAN: If I can sort of look at the
15 question two ways, if you don't mind.

16 Q. No.

17 A. MR. BOWMAN: From a perspective of costs and
18 cost of investment in plant and historic investment, one's
19 mind in this type of proceeding would tend to go to cost of
20 service and perhaps should we be looking at refining the cost
21 of service to talk about summer energy having a different
22 cost profile than winter energy in light of the historic
23 investment. And I'm -- I don't think that's a point that I
24 would suggest is the sort of thing that I would think is
25 fruitful to pursue. That's different than rate setting.

16:29

1 And in the context of rate setting, if the
2 premise -- you know, the premise would effectively be, given
3 the set of costs, given the rates I need to charge, do we
4 need to do more to reflect the fact that there is a future
5 investment going to be required and there is some historic
6 investment that has been made fundamentally to ensure we can
7 apply kilowatt hours in winter that would be substantially
8 reduced if those kilowatt hours were in summer. That is the
9 type of situation that Mr. Osler was referring to that is
10 very much true in the -- at the point where the system's load 16:30
11 is closely matched to the overall hydro. There comes a
12 point, for example, when the -- when the Faro Mine was
13 operating, that your load is so high that winter water and
14 summer water -- using water almost any time of the year,
15 effectively drives diesel and takes it out of storage,
16 regardless of whether it's summer or winter. Somewhere in
17 the middle is this point where winter energy is more of a
18 concern than summer energy, and perhaps that's the type of
19 cost factor you're talking about. But it is a -- it is a
20 transitional effect, if you like, as opposed to a sort of -- 16:31
21 a very high load effect.

22 Q. If I understand correctly, then, you don't feel that
23 capital cost incurred at the time facilities are built in
24 order to store water, in order to make that energy available
25 in winter, should be considered for the purposes of rate

1 making and should not influence rates that may be different
2 in summer versus winter or costs that may be assigned to
3 summer versus winter energy use?

4 A. MR. BOWMAN: I didn't quite say that. What
5 I had said was that I don't think it's fruitful to try to do
6 that via cost-of-service study as a cost breakdown. In rate
7 making, I think it is important to recognize when -- what is
8 the cost drivers on the system seasonally where there's an
9 underlying rate-related type of cost. And when I say "rate
10 related," I mean incremental or price signal and economic
11 costs as opposed to a historic accounting cost. And in that
12 context, that is somewhat true today. It's certainly true
13 that when you deal with a resource planning side,
14 Yukon Energy is putting a whole lot of time and energy and
15 money and discussions and studies into figuring out how to
16 ensure it can deliver kilowatt hours in the winter where it's
17 all about storage and the -- getting those same kilowatt
18 hours in the summer wouldn't be nearly as hard.

19 Unfortunately people tend to like to use power in the winter.

20 And so there's a -- there is definitely an
21 overall linkage between effort and focus in terms of winter
22 energy as opposed to summer energy. The issue becomes how
23 much you reflect that in rates. And I think if one got into
24 looking at accounting costs or historic assets or carving
25 them up in this way, you'll find that none of them are

16:32

16:32

1 anywhere near the type of price driver we're talking about
2 that arises when those loads are forward looking, are looking
3 at the possibility of driving diesel, the near -- you know,
4 in the relatively near term and trying to use a diesel price
5 signal. When your historic assets are at, you know, ten
6 cents or lower and your diesel prices are approaching
7 30 cents, refining the 10-cent number is a bit outside of the
8 focus. What you really need to do is wrestle with the fact
9 that it's your next tier of costs that are up at the 30-cent
10 range that you need to wrestle with.

16:33

11 Q. So if we were looking at the next hydro project beyond
12 Mayo B to meet loads that are larger in winter and smaller in
13 the summer, we should take that into account, but it's not
14 material to take that into account for those plants that are
15 currently in rate base?

16 A. MR. OSLER: Well, just a -- we do take it
17 into account when we look at the benefits of different
18 projects that we examine, because we do an assessment of how
19 much diesel we're going to save. So if we can do a Gladstone
20 or an Etlan (phonetic) storage which will allow us to make
21 sure that the energy we're getting is in wintertime, we can
22 get a lot bigger impact on diesel saving than if it's only
23 available on some average basis throughout the year. And if
24 it was only available during the summer, it wouldn't be of
25 much use to us. So that comes into the assessment of the

16:34

1 viability of recommending Project A versus Project C.

2 The question you're asking is how would we
3 deal with this in rates, and if you get down to it -- well,
4 we would deal with it if you wanted to in rates by having a
5 higher seasonal rate in something called "the winter" -- we
6 could debate that -- versus the summer. And if you said you
7 wanted to do that, somebody might get into a cost-of-service
8 base assessment, which I've seen in this jurisdiction, and
9 say, okay, then -- let's take all these assets and figure how
10 much these costs should be. I think Mr. Bowman is saying
11 that would be scary in terms of -- if you think it's
12 complicated now, I think it can get even more complicated.

16:35

13 And secondly, if you set the rates that way,
14 unless you just take a philosophy that says, well, it's more
15 costly we think in the winter than the summer, and during
16 some time period in our history it may well be true. We may
17 not be in the situation of either surplus or diesel on the
18 margin all year round; therefore, we should, as a matter of
19 principle, during that time period do this. The trouble is
20 doing this requires a whole rate-change exercise, and it's
21 not stable, and it's hard to do. So I wouldn't recommend
22 trying to do it, even launch on that, unless you really
23 thought it was a good long-term idea, and I don't for the
24 reasons we just went through. I just think in the -- as the
25 load grows, you'll be back closer to what we had in the '90s

16:35

1 than what we've been through in the last ten years. But it's
2 -- they're practicality concerns in the end more than is this
3 true or is that not true.

4 Q. So there is some seasonal variation to the cost, but
5 it's not practical to reflect that in rates? Is that is a
6 fair summary?

7 A. MR. OSLER: It's a fair summary if you
8 accept the comment that I will concede for the sake of
9 discussion that there could be a time period when there is a
10 meaningful seasonal variation in costs. I'm concerned about 16:36
11 how long that time period will be and when it will be, and I
12 observe that Mr. Bowman's point about once you get the load
13 to a certain level, there isn't that real variation, because
14 whether I use the water in the summer or the winter, it's
15 still the same water.

16 So I don't really want to get into is that
17 true for all time. I'm sure it isn't. That there would be
18 -- of seasonal variation in cost. And I don't -- and I'm
19 very discomforted at the thought that this system, the way I
20 can see it coming in the near future, the next ten, 20 years, 16:37
21 I can't see diesel not being on the margin, such a large
22 portion of the year that we're sort of back to the '90s more
23 than the other thing.

24 But I can concede that there could be,
25 theoretically, in practice, some time period when everything

1 you're talking about may apply. I just don't think it's
2 worth the effort to try and get into trying to design all the
3 rates for that brief window of opportunity, if that's what it
4 is. Well, we have no idea exactly when it will be or how
5 brief it will be. We may go from where we are today right
6 into diesel on the margin for a good chunk of the year. A
7 couple of -- you know, if enough load growth occurs.

8 Q. So in the long term, what was going through my mind is
9 that it may be economically practical to have some percentage
10 of diesel as our overall supply mix, and that being likely in 16:38
11 the winter months; and if we were in that kind of a
12 situation, then it would seem to me that some factor of
13 seasonal rates may make sense in the long term if a
14 percentage of diesel on the mix makes economic sense in the
15 long term or some other peaking supply?

16 A. MR. OSLER: Let me just warn you that in
17 Manitoba or other places, the thinking and power benefits
18 models we're using now in Yukon to perfect this thinking, I'm
19 not sure that your problem when you think of big numbers is
20 summer versus winter. It may be drought versus average 16:38
21 conditions. And if it's drought, I don't care whether it's
22 summer or winter. You know. I'm serious. I see --

23 Q. I recall the early '90s as well, Mr. Osler.

24 A. MR. OSLER: So let's not get everybody in
25 the room wondering what we're talking about, but 2009 loads

1 under drought conditions, we could have -- it's answered in
2 that question I referenced, sir. But it's very high, like
3 50 gigawatt hours. That's a -- charge that out at 25 or
4 30 cents and ask yourself who's going to pay for it, when?
5 So if that's your problem, my comment to people that say,
6 let's get rid of diesel completely from the system, aside
7 from peaking, the answer is: No. You do not build a hydro
8 plant to deal with a drought. You build a peaker to deal
9 with the system when it has a drought or you buy the power
10 from outside. That's the cost-effective way. So I think the 16:39
11 system will tend to have diesel around, whether it's on the
12 margin or not, yes. And it will be there in a time cycle of
13 water use over the history of that water. It will be there
14 very materially.

15 Q. Thank you. The next question is one of clarification
16 again. On Exhibit B-12, which -- I've forgotten now whether
17 that is your October 4th submission. Table 5. I think
18 that's your October 4th submission. In the top row of
19 numbers under "monthly consumption of 1250 kilowatt hours,
20 there is, instead of a percentage there, a number of \$120.20. 16:40
21 Can someone provide the correct number in percentage terms?

22 A. MR. OSLER: Yes. It's 18.01 percent.

23 Q. 18.01 percent?

24 A. MR. OSLER: Yes.

25 Q. Thank you.

E. MOLLARD, C. OSLER, P. BOWMAN

Cross-Exam by Mr. Maissan

1 A. MR. OSLER: You alerted us to that. I
2 probably could calculate. I didn't do it in my head.

3 Q. Thank you.

4 A. MR. OSLER: I have -- my colleague tells me
5 all I had to do is look one row down, so he proves that I
6 wasn't efficient.

7 Q. Thank you. The next few questions are on Option C,
8 Exhibit B-14 again. In Tables 1 and 2 -- sorry, we've
9 covered that question. Again, I had a question in regards to
10 the distribution of customers within those -- within those 16:41
11 various categories, and I note that the utilities use
12 percentage customers -- the term "percentage customers"
13 quite often when they mean percentage bills, and they might
14 be quite different, particularly for electric heating
15 customers who may be over 3,000 kilowatt hours in a month in
16 the winter and under a thousand kilowatt hours a month in the
17 summers. So there could be one customer that fluctuates
18 through the entire range at different times of the year.

19 The substantive question I have next is in
20 regards to Yukon Energy's rationale for going from Option -- 16:42
21 preferring Option A to C, and in developing that Option C, I
22 note that the Block 2 rates have decreased, and Block 1 rates
23 have increased. I was wondering if someone could explain the
24 thinking that went into the decrease of Block 2 rates and the
25 increase in Block 1 rates?

1 A. MR. OSLER: I'll give a high-level comment,
2 and maybe Mr. Bowman could, if you have some more questions,
3 could fill in. But in the discussions, we got into looking
4 at this, and our focus was on the run-out rate and the extent
5 to which one could look at variation from 80 percent, and we
6 took your number as sort of the -- of the low end of that
7 range of 20 cents, and secondly, we looked at changing the
8 blocks. So once we'd done that, the question was what
9 Block 2 rate to use, because the residual will be the Block 1
10 rate. Okay?

16:43

11 Q. Mm-hmm.

12 A. MR. OSLER: And in the discussions that we
13 were having, we understood that there was some revenue
14 sensitivity with respect to too large a jump between the
15 Block 1 and the Block 2 rate from the point of views of the
16 major distributor, and so we thought that the sort of 2-cent
17 limit might address that issue. And that's the way the
18 calculation comes out to have a 2-cent limit, as distinct
19 from 4 or some other number.

20 It also, from the point of view of -- once you
21 get to the block where it is, I could confirm for you -- it
22 doesn't really matter whether the rate is 80 percent or
23 72 percent in terms of the overall effect on most of the
24 bills are in there, because the -- it's affecting so few
25 customers or so few bills, okay.

16:43

1 Q. Sorry, you're referring --

2 A. MR. OSLER: But --

3 Q. -- to Block 3 rates now?

4 A. MR. OSLER: Yes. I'm referring to the
5 choice of whether you have 20 or -- whether you have 22.39,
6 which is the rate that we used under Option A, or 20 cents.

7 Q. Yes.

8 A. MR. OSLER: It won't make a lot of
9 difference to most of the people's bills in this thing
10 because we have reduced the number of people affected by the
11 third block so dramatically, the number of bills affected.
12 But the second block rate has become very important. It
13 drives how much and who is affected by what. And we sort
14 of -- in terms of the discussions we were having, comparing
15 this to the A, B, C range of stuff and the concerns that some
16 people have about some of the issues there in terms of
17 impacts or all the other things, this seemed to be a number
18 that we thought might work to get a consensus, at least among
19 the utilities. It didn't, but that was how -- that was where
20 we drove it from. And also had an impact on customers that
21 were about as moderate as we could think of it.

22 We fully anticipated that -- and we, you know,
23 appreciated your view, we've talked about it, and, you know,
24 we're sure that you'll present your view to the Board as to
25 the effect on the second block and changing it. You can see

16:44

16:45

1 in -- effectively, your option beside it. The only thing we
2 haven't shown but one could show is the effect of your option
3 -- if it was done under the same blocks as C. You know, that
4 type of thing. But it would have a fairly material effect on
5 all the people in that range because it's 16 cents over all
6 the people, but it wouldn't be as big an effect as you have
7 because you're starting at 1,500 with a higher number.

8 This table, as Mr. Bowman shows, says, "runoff
9 rate starts at 2,500," but that's a typo. For LE option.
10 The bar above shows that it starts at 1,500.

16:46

11 Q. Yeah. It followed the structure of Option A. It was a
12 variation of Option A --

13 A. MR. OSLER: Yes.

14 Q. -- and I didn't have the benefit of Option C when I
15 prepared my evidence.

16 A. MR. OSLER: But we ran, you know, many
17 different types of cases and looked at whether -- the big
18 difference between 13.75 and 16 cents is that you will have a
19 bigger effect on all the people in the area that you're
20 talking about plus the other ones compared to our option, up
21 to 2,500.

16:46

22 Q. Was there any discussion in this Block 1, Block 2 rate
23 discussion that dealt with impact of bills on customers? For
24 instance, I note that Option C -- under Option C, that all
25 customers consuming under 1,500 kilowatt hours a month, or

1 thereabouts, will receive a bill decrease. Was that part of
2 the consideration for setting those rates?

3 A. MR. BOWMAN: You'll see where the negative
4 numbers stop as one goes down the list. That function,
5 though, of 1,500 or so, turning point -- or at least very
6 close to that 1,400 to 1,300 --

7 Q. 1,400, yes.

8 A. MR. BOWMAN: -- is a characteristic of
9 Options A, Option C, and the option you submitted,
10 Mr. Maissan. And it seems to be a fairly fixed mathematical
11 relationship that if you're looking to deal with Block 3
12 rates and the type of rate -- type of levels that are shown
13 here and some level of decrease to the first block, you know
14 that the thousand kilowatt hour customer is going to have a
15 certain level of decrease, and then it's just a matter of how
16 much farther into the second block before it turns around.

16:47

17 But within any reasonable range of numbers, it
18 tends to be, you know, 3, 4, 500 kilowatt hours. That seems
19 to be the turning point almost no matter what you do with the
20 second block.

16:48

21 Q. Under Option A, one of the features which I liked and
22 which I borrowed, if I can say that, in my evidence is that
23 for those customers who have bills of under a thousand
24 kilowatt hours in a month, they would get a 10 percent rate
25 decrease, but if IER were terminate, their bill increase was

1 10 percent, and that seemed like a very manageable rate
2 increase for a large number of people should IER terminate.
3 So I wondered whether -- you know, because under Option C the
4 impact of bill increase is quite a bit larger when IER
5 terminates, and I wondered whether that was part of that
6 discussion too. Was there any concern over the possible
7 impact with termination of the IER on those customers?

8 A. MR. OSLER: There's no secret that the
9 original Option A -- and you picked up on it -- had noted the
10 impact that you're talking about in the event that the IER 16:49
11 comes off as announced. That type of thing or as people have
12 talked about. So we didn't forget about it in discussing all
13 these other things. Option A, put very simply, had two key
14 attributes to it. It sort of got you to the 1,500 block, it
15 got you to 80 percent, and it gave you a big reduction for
16 people that might face removal of an IER. Those were the
17 thoughts that led to its creation. But there are a lot of
18 concerns noted by a lot of different people, and Option C
19 obviously will not do all of the things that I just
20 described. It won't give you 80 percent; it will only give 16:50
21 you have 71 1/2. Well, that, in the end, was the biggest
22 thing we were after, was getting the 20 cents.

23 Secondly, it will not give you that big
24 reduction simply because it's not charging people above a
25 thousand as much as -- and cumulatively as we were talking

1 about. If you were to raise the second block -- you know, if
2 you took Option C and you were to say, well, rather than
3 13.75, I think it should be 14 or 15 or 16, two things will
4 happen. The percentage increases above a thousand will be
5 much more material, but the break point will still be the
6 same, and the lower -- the reductions below that will be much
7 more material, and the step amount between the first block
8 and the second block will be bigger. The stepped amount may
9 be of concern to the retail utility in terms of revenue
10 stability, the people who are going to pay more may have a
11 concern about it, and the people who are getting less --
12 that's what will happen. You know, but that can be
13 discussed. It's not for us to, frankly, in the end sort out
14 what it is in the mind of the Board and the best way to deal
15 with all of that.

16:50

16 Q. Yes. And was there consideration for DSM signals in
17 Block 2 rates going to the majority of customers considering
18 now that Block 3 rates only affect a very small percentage of
19 customers?

20 A. MR. OSLER: Certainly the concept of the
21 second block having a rate higher than the first block and a
22 signal for DSM and for conservation and everything else
23 starting wherever the second block starts is something that
24 was inherently considered in all of the options we are
25 looking at, and it all comes down to how much of a signal --

16:51

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 what does the second block bring.

2 MR. MAISSAN: Thank you. Those conclude my
3 questions, Mr. Chairman.

4 THE CHAIR: Thank you very much,
5 Mr. Maissan.

6 I'll call on the counsel for the Yukon
7 Utilities Board.

8 MS. BENTIVEGNA QUESTIONS THE PANEL:

9 Q. MS. BENTIVEGNA: Good afternoon, Panel. The
10 first series of questions relate to Rider F. Now, what are
11 the upper and lower bounds used to determine when an
12 adjustment is required to Rider F?

16:52

13 A. MR. MOLLARD: Sorry, we're just getting some
14 hydration going here.

15 Q. Sure. No, that's fine.

16 A. MR. MOLLARD: Could you repeat that question,
17 please?

18 Q. Sure.

19 A. MR. OSLER: We have to make sure we don't
20 spill it.

16:52

21 Q. Regarding Rider F, what are the upper and lower bounds
22 used to determine when an adjustment is required for Rider F?

23 A. MR. OSLER: Can I make sure we understand
24 it? Upper and lower bounds and adjustment. Rider F. Okay.
25 Sorry. Go ahead.

1 **A. MR. MOLLARD:** Subject to check, I believe
2 it's in the -- we try and keep it in the neighbourhood of
3 about \$200,000 in the account between the two utilities, plus
4 or minus.

5 **Q.** Okay. Now, what criteria did the companies use when
6 determining that an adjustment is required to Rider F?

7 **A. MR. MOLLARD:** We try and look at forecast
8 consumption levels and the rate at which the account would be
9 settled out. So we try not to have too big a balance that
10 requires us to have a really big adjustment quickly to get
11 the account down or too small of an adjustment that it will
12 take us years to collect. So it's really judgmental based on
13 the expected loads that will draw that account down.

16:53

14 **Q.** Is there a written policy?

15 **A. MR. MOLLARD:** No.

16 **Q.** All right. Thank you. Now, can you tell me -- and if
17 not right now, maybe provide an undertaking -- what the
18 outstanding balances were at the time adjustments to Rider F
19 were made or were required over the past five years?

20 **A. MR. MOLLARD:** I don't have that, but I can
21 get that fairly easily, yeah.

16:54

22 **Q.** Thank you.

23 **UNDERTAKING - TO ADVISE AS TO WHAT THE**
24 **OUTSTANDING BALANCES WERE AT THE TIME**
25 **ADJUSTMENTS TO RIDER F WERE MADE OR**

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 WERE REQUIRED OVER THE PAST FIVE YEARS

2 A. MR. MOLLARD: So just to be clear,
3 outstanding balances over the last five years?

4 Q. Yes, when you determine that adjustment that the --

5 A. MR. MOLLARD: When adjustments were done.

6 Q. Yes.

7 A. MR. MOLLARD: Okay. Very good.

8 Q. Now, in the Phase I GRA, the price for diesel was reset.
9 Do you know what the balance was in the account for Rider F
10 at that time? And, I mean, a ballpark figure will do. I
11 don't expect down to the cents.

16:55

12 A. MR. MOLLARD: No. No, I couldn't tell you
13 that right offhand, unfortunately.

14 Q. Okay.

15 A. MR. BOWMAN: You may find that there's --
16 it's a more complicated question than it sounds because the
17 Rider F accounts reconcile from time to time as fuel is used
18 the price actually being paid for fuel versus the price set
19 in the last GRA, and that amount is charged off to the
20 account. In this last set of GRAs, and for the last many
21 years, most of the Rider F balance arises from YECL's use of
22 fuel in Watson Lake and the small communities. Yukon
23 Energy's not using a large amount of fuel on the WAF. The
24 accounts are -- the Rider F is the same, and the accounts are
25 managed, effectively, jointly, but most of the balance arises

16:55

1 from Yukon Electrical.

2 What happened last GRA though is new fuel
3 prices were set for the test years 2008 and 2009, but they
4 were not set until well into the test years, and so the
5 Rider F account was effectively being managed through parts
6 of 2008, for example, the old way, and then people had to go
7 back and deal with, effectively, restatement of it to try to
8 get it reconciled to the new way. And so there was a bit of
9 treading water, if you like, in that account until both GRAs
10 were completed, and then both utilities sat down and
11 reconciled and got a new set of balances consistent with the
12 test year fuel prices.

16:56

13 So I think you'll find that once YEC's GRA was
14 done and the new fuel price was incorporated, it's -- you can
15 get a clean balance, but it won't be until these utilities
16 have gone through that reconciling process and that
17 trueing-up process. If that satisfies your need, I think
18 that's...

19 A. MR. OSLER: The other thing is that the
20 YECL compliance filing for their last GRA addresses many of
21 these things for the reasons Mr. Bowman just did, so I don't
22 think we can be of great help in terms of that transition in
23 that instance when you went -- YECL went from having old
24 prices to new prices in the middle of a time period, but they
25 also set the rider at some point in that time period to zero

16:57

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 for a few months and that also helped correct balances. So
2 there was a bunch of activities about the time that you had a
3 decision but didn't have compliance and indirect compliance
4 filings, and I don't -- I don't want to get into that because
5 it's a piece of paperwork. Maybe the YECL people, if you
6 really want to pursue it, you can ask them. But the history
7 of how it's been run before that shows you a pattern of --
8 right through the period of diesel price fluctuation as to
9 how companies dealt with the very questions you're asking at
10 the beginning: when they adjusted it; how much was the
11 balance when they adjusted it; what they are we thinking
12 about. There was a Board order a long time ago directing the
13 companies not to sit on their hands when the balances got
14 big. I'll just say that as a sort of guiding principle that
15 the companies had to pay attention to this and deal with it.

16:57

16 Q. Okay. But what happened to the balance once the
17 fluctuation and you knew the amounts, the decision was
18 issued? I guess, was there a balance, and what happened to
19 it?

20 A. MR. BOWMAN: I think once we have the
21 decision issued and the reconciling done and the prior
22 restatement done, you'll get a clean record of the account,
23 and that's my only caution is that -- we've got to be careful
24 about that adjustment and restatement period. But we can get
25 a clean record --

16:58

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 A. MR. OSLER: Yes, we can --

2 A. MR. BOWMAN: -- moving forward.

3 A. MR. OSLER: -- do that, but the YECL
4 compliance filing will show you why they said certain net
5 amounts for rates they were recommending, taking into account
6 the adjustments to, you know, the rider accounts that were
7 necessary.

8 Q. Maybe to put it another way, is the balance, I believe,
9 carried forward in the reconciliation that was done for this
10 account?

16:59

11 A. MR. MOLLARD: I believe if -- the last
12 adjustment that we'll present to you as part of this
13 historical will show you those balances that you want us --
14 we want to see.

15 Q. All right.

16 A. MR. MOLLARD: Okay.

17 Q. Thank you. Now, this question relates to CW-19(a), and
18 it's regarding rate Option A. And we note from that
19 response:

20 YEC views Option A, is a far superior
21 rate design today relative to Option B,
22 as it restores a process for rate
23 design adjustment after a 12-year
24 period when no rate adjustments could
25 take place. Rather than retaining a

17:00

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 status quo that no longer reflects
2 current system conditions or near-term
3 trends. In this regard, Option A
4 clearly complies with Order-in-Council
5 directives to the Board and past
6 practice for rate design in Yukon under
7 such Orders-in-Council and has a much
8 stronger long-term price efficiency
9 signal to ratepayers at a time when
10 diesel generation is once again
11 becoming relevant on the margin in the
12 hydro rate zones, as well as continuing
13 to be relevant in the various diesel
14 rate zones.

17:00

15 Now, can you please describe further the rate design
16 adjustment that's referred to in the passage I just quoted?

17 **A. MR. BOWMAN:** We're noting the phrase you
18 used, rate design adjustments, and it shows in the second
19 line of that bullet. And in that regard, what it's referring
20 to is that Option A was premised on taking notable step today
21 towards where we know the system needs to go in the coming
22 number of years such that it's actually movement down a path
23 that is looming, if you like.

17:01

24 **Q.** Were you going to add? I was just waiting.

25 **A. MR. OSLER:** Mr. Bowman's point is that rate

1 design adjustments was being thought of in that response not
2 just for today but for an ongoing period, a transition
3 period, and the key differences between Options A and B --
4 and we've discussed at some length -- they have the rate
5 blocks and the runoff rates. So as we've said, and I think
6 the answer commented on those things, this was before we had
7 come up with Option C, so the points during the IR process
8 that were made and various IR responses asking for the
9 comparison and different companies' views on these two
10 options inevitably drew attention to two things: a much
11 lower runoff rate and the much lower number of customers
12 affected by that runoff rate is the key differences. And we
13 thought in the long run both had to be addressed.

17:03

14 In contrast, the concern that is always
15 comparative -- the concern with Option B is that it had a
16 small block of people affected, and it had a very small
17 change from where the effective runoff rate is today and, in
18 that regard, didn't seem to be -- and it wasn't being
19 advocated as a transitional measure with regard to the rate
20 block. It probably is -- was advanced as a transitional
21 measure with respect to the runoff rate, I think, in
22 fairness. It sort of acknowledged that as diesel became more
23 and more significant, the runoff rate would have to go up so
24 that -- I don't think we were arguing over inverted rates
25 versus a flat rate or something like that. I don't know why

17:03

1 we would have bothered agreeing on having a third block,
2 et cetera if we weren't planning on using it. So I've always
3 assumed that the essential argument, discussion over the
4 magnitude of the runoff rate was really a matter of timing
5 more than a matter of ignoring it. But we thought the timing
6 had to go further today than was there, and that's what's
7 reflected in Option C.

8 And secondly, on reflection, we thought we
9 could go to the rate blocks of Option C today and swallow the
10 fact that it only affects a small number of people because it
11 might be helping the transition, but we really didn't want to
12 argue that was the right way to do it in the long run in
13 terms of blocks.

14 Q. All right. Thank you. Now still in CW-19 with regards
15 to Option B, and I note:

16 "In YEC's view, however, Option B's
17 only underlying attribute is that it
18 leads as a result of the Phase II
19 process to basically no change in rates
20 for almost every customer in Yukon.
21 After 12 years when diesel prices have
22 more than tripled without any rate
23 redesign occurring in Yukon, this seems
24 like a poor outcome were it to arise
25 after all of the costs and effort put

17:04

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 into the current proceeding."

2 And my question to you is in view of YEC's position with
3 regards to Option B, why is Option B a poor outcome given the
4 costs and efforts put into the current proceeding?

5 A. MR. BOWMAN: I think the short answer is far
6 and away the biggest factor we're dealing with today and
7 having to wrestle with is the fact that there's been
8 basically no change to rates to reflect what's been going on
9 outside of this system in the world during the intervening 12
10 years, and the net effect of Option B is to create a third
11 block but impose a further period with very little changes to
12 rates. And I think that is the -- that is focused on an
13 underlying premise that, therefore, when everyone walks out
14 of this room rates will be stable.

17:06

15 We would say that when everyone walks out of
16 this room in the event Option B were adopted rates will tend
17 to stay the same, but in an overall planning context and
18 looking forward it does not usher in era of stability. It
19 just defers dealing with what we know to be underlying and an
20 evolving system condition.

17:07

21 Q. Hank you. Now, I'm still referring to CW-19 (a) and in
22 relation this time to the ERA and Rider D. Does the energy
23 reconciliation adjustment -- that's the reference to ERA --
24 ensure that incremental costs of running diesel are
25 recovered?

1 A. MR. OSLER: Mr. Bowman is just checking the
2 Order-in-Council's language, but the ERA was intended in the
3 context of that portion of OIC 1995-90, which requires a rate
4 framework that ensures that YEC's costs were covered, it was
5 intended to try and address that in the context of diesel
6 being on the margin, and our thinking was in that situation
7 where diesel was on the margin it was a good measure to solve
8 that problem in the sense that there's no guarantee in any
9 rate structure that everybody gets everything they like, but
10 that was a very predictable problem, and that was a very good
11 solution to it. 17:08

12 Q. So does it ensure that incremental costs of running
13 diesel are recovered or not?

14 A. MR. OSLER: It ensures that incremental
15 costs that YEC incurs due to YECL's having a higher load than
16 forecast, when we have diesel on the margin, it ensures that
17 YEC recovers its approved diesel price for those costs and
18 transfers them to YECL. It also -- any other costs relating
19 to the diesel that go to the DCF or go to Rider F are
20 separate issues. But it ensures that YEC's costs are
21 recovered. 17:09

22 A. MR. BOWMAN: The item the ERA did not deal
23 with is YEC's non-wholesale sales in which it does not ensure
24 those costs are recovered because they are not related to
25 supply through that manner. YEC retains the risk of load

1 variation with respect to its own customers. So if Dawson
2 grows to a point where it drives diesel -- YEC serves
3 Dawson -- that diesel, offset with the extra revenues it
4 gets, is an overall net income variation that is part of
5 YEC's risk and ongoing financial situation.

6 The same with an industrial customer. If an
7 industrial customer's load changes, absent triggering the
8 provision in the rate schedule, YEC retains that risk. Now,
9 that's part of the reason the industrial rate schedule has
10 the opportunity to trigger that provision to ensure that YEC 17:10
11 through that manner can help recover the costs that it incurs
12 for load variation.

13 A. MR. OSLER: Right now if a new major
14 customer, such as a new mine, comes on the YEC system,
15 there's no assurance that it recovers incremental diesel
16 costs, even with the industrial rate that's there. If it was
17 to lead to a large surge in diesel requirements, YEC would
18 have to come to this Board immediately to seek ability to
19 make sure all the rates worked.

20 A. MR. BOWMAN: Or indeed any other factor that 17:10
21 would drive diesel that is not covered by one of those items
22 we talked about. For example, if YEC has a hydro outage and
23 has to run diesel, not related to its load and not related to
24 a draught but simply related to a facility breakdown, that
25 becomes part of its costs. That's part of a change in its

1 supply mix, and the utility bears that.

2 Or if -- this is not quite diesel related,
3 but, for example, the secondary sales interruption right now
4 is causing a change in YEC's revenues, but for a similar
5 factor of water availability, and at this point it's rolled
6 into YEC's revenue.

7 Q. Can you provide a numerical example of how this
8 operates?

9 A. MR. BOWMAN: You mean the ERA?

10 Q. Yes.

17:11

11 A. MR. BOWMAN: Yes, we can. It would probably
12 be -- we have to develop a hypothetical case or something to
13 do it, but yes, we can.

14 Q. All right. Thank you. That would be appreciated.

15 THE CHAIR: Is that an undertaking then?

16 Just to confirm.

17 MS. BENTIVEGNA: I believe so.

18 A. MR. OSLER: Mr. Bowman so undertook.

19 UNDERTAKING - TO PROVIDE A NUMERICAL
20 EXAMPLE OF HOW THE ERA OPERATES AS
21 REFERRED TO

17:11

22 Q. Now, in your view does the ERA preclude the need for
23 Rider D?

24 A. MR. OSLER: Could you say that again?

25 Q. Yes. Are you of the opinion -- is YEC of the opinion

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 that because of the ERA mechanism in place now that it
2 precludes the need for having a Rider D?

3 A. MR. OSLER: I guess the idea of a Rider D
4 would never have emerged in anybody's brain without the ERA.
5 That's the logical conundrum that we're having but -- and we
6 don't think there's a need for a Rider D per se with or
7 without the ERA. But couldn't even talk about a Rider D, I
8 guess, in the way it's being discussed without an ERA to
9 start with. But we had an ERA for years, and nobody ever
10 mentioned to me any thought about either deferral accounts or 17:13
11 Rider D, so certainly in our opinion, the existence of an ERA
12 does not require a Rider D.

13 Q. Thank you. Now, in relation to the Rider D and Rate
14 Schedule 42, this is page 3 of 3 of the Rider D application.

15 A. MR. OSLER: Right. Just a sec.

16 Q. You'll note on page 3 of 3 that YECL has proposed new
17 wording for Rate Schedule 42?

18 A. MR. OSLER: Yes.

19 Q. And does YEC have any issue with or take any issue with
20 the proposed wording? 17:14

21 A. MR. OSLER: The only issue that we have
22 loosely discussed, without any great depth, is whether we
23 really want to take out the word "periodically" and say "on a
24 monthly basis" for one thing. And I don't know how -- you
25 know, it's just a question of practicality. If it makes

1 sense to do it on en a monthly basis, the word "periodically"
2 let's us do it, and if it doesn't make sense we don't have to
3 go out and do it on a monthly basis. That type of pragmatic
4 thinking.

5 The insert of "during the months when diesel
6 generation is on the margin for the WAF system" is -- it
7 essentially reflects the order 1999-4 and the settlement
8 agreement and the reality that that settlement agreement and
9 that order said all of those agreements only last until you
10 make another change.

17:15

11 So it makes sense to make sure that we don't
12 have to go back and re-invent that debate and putting that
13 clearly in the document. Whether we want to say "WAF system"
14 given the integrated system, I don't care. But that makes
15 sense in terms of the history and we have no essential
16 problem with it.

17 It says "a Board approved rate." That
18 probably is something where we have a definite -- it's not so
19 much an argument over words. It's a question of what are we
20 going to do with it. We'd like to get words that have
21 clarity at any one time as to what can be charged without
22 having to come back to the Board. So the argument may be
23 that using words like "non-government residential service for
24 the hydro zone" in our own submissions may not be adequate
25 unless you can guarantee us we're going to get 80 percent or

17:15

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 better, a run-out rate, and if it gets lower than that, we're
2 concerned that that isn't adequate.

3 So there's probably room for discussion about
4 how best to word that portion of it, but when we said in our
5 option comments that we needed to make -- we did a support --
6 amendments to the wording of the schedule, we were thinking
7 of those types of things here with those types of comments.

8 We would have inserted a number that the Board
9 would approve in each particular GRA proceeding, or if we get
10 the run-out rate to 80 percent or so, then this language
11 could stay from where it was before.

17:16

12 The concept way back then is that if they have
13 a good enough run-out rate then the issue of their side of
14 the accounts is there. They get the money from the run-out
15 rate, and, therefore, you know, they don't need to have the
16 Rider D at all. And in that sense, with a proper run-out
17 rate and everything else, I don't think anybody would have
18 ever thought about a Rider D.

19 But when you don't move the run-out rate
20 around and you suddenly have to face the costs, then I guess
21 your mind gets going, but I don't know the difference between
22 what's happening here and what's happening in Watson Lake. I
23 mean, the run-out rate we're not to have any higher in Watson
24 Lake than here, and it's 100 percent diesel. And if they
25 have a load forecast variance there they're going to pay for

17:17

1 it without a Rider D.

2 Q. Okay. Thank you.

3 Now, with regards to still, of course, rate
4 design and CW-19 (c) this time, we note the statement that:

5 "Yukon Energy understands YECL's
6 primary objections to Option A to be
7 related to two reasons: 1) YECL
8 indicated that in their view it is not
9 clear that baseload diesel generation
10 is indeed part of the grid supply mix
11 in the near future, and 2) Option A is
12 viewed by YECL as providing an adverse
13 rate impact on certain users, notably
14 residential customers above 2500
15 kilowatt hours and also General Service
16 customers in the range of 20,000
17 kilowatt hours per month.

18 Now, I note that it goes on the talk about:

19 "Yukon Energy's Appendix 4.1A, Table
20 A4.4 indicates that less than 2 percent
21 of residential customers use above 2500
22 kilowatt hours per month in a year ..."

23 and I'm still quoting from your response,

24 "With respect to general service
25 customers, it is only customers at

17:18

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 precisely 20,000 kilowatt hours per
2 month who see the largest impacts, and
3 the rate impacts decline above this
4 level."

5 Now, for the forecast period included in YEC's 2008-2009
6 Phase I GRA, was baseload diesel expected to occur during the
7 test period?

8 A. MR. OSLER: No.

9 Q. And why wasn't it expected?

10 A. MR. OSLER: For two reasons: One was that
11 we hadn't run the power benefits models that we ran by the
12 time we got to the Mayo B hearing, so we hadn't done the
13 assessment of the long-term average that is reflected in one
14 of our other answers here. And the second reason was that at
15 the load levels that exist under normal long-term average
16 water flows, which is the basis for a GRA forecast, there
17 wasn't an expectation that increased load or decreases in
18 load would lead to the corresponding increase or decrease in
19 diesel consumption, and that would apply during the bulk of
20 the winter as well as during the summer.

21 So, that in short -- there's two things, and
22 those are the two keys.

23 Q. All right.

24 A. MR. OSLER: And that is 2009, the test
25 year. Our thinking is you know from the hearing on Mayo B it

17:19

17:20

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 is very affected by looking at where we're going as well as
2 where it was in 2009.

3 Q. Okay. Does YEC have any customers within its service
4 charge territory which are expected to be adversely impacted
5 by the rate design suggested for Option A as those that are
6 identified in the YECL service territory?

7 A. MR. OSLER: Give us a minute?

8 Q. Sure.

9 A. MR. OSLER: I'm sure we have some customers
10 who would have been adversely affected, and believe me, YEC
11 hears from the other guy's customers when they're adversely
12 affected too.

17:21

13 A. MR. BOWMAN: Perhaps I can save us the
14 trouble of having to dig through it, but yes, there is --
15 YEC's customers -- to put this simply, under Option A, which
16 is the one you were asking about, the point at which
17 customers in the residential side, which tends to be to the
18 focus of these questions, turn around -- as we were talking
19 about with Mr. Maissan -- turn around from being reductions
20 for small customers and increases for large customers, tends
21 to be at about 1500 kilowatt hours.

17:22

22 All you have to do is figure out if YEC
23 customers are in there is to look whether we sell power that
24 would be in that Block 3. And the answer is all in the
25 detailed tables and billing determinants attached to Tab 4,

1 and it's in there in quite a bit of detail.

2 It does break it down by utility. I can
3 honestly say in going through the entire rate design it was
4 never a question of "my customers versus your customers and
5 who's getting hurt." That's not the -- I don't think I ever
6 recall ever having bothered to run numbers that looked at one
7 utility's customers versus the other. It was the
8 consolidated Yukon customers treated consistently for both
9 utilities the way it is set out in the OIC.

10 But the short answer is yes, there -- YEC does 17:23
11 have customers in that range who would be paying more under
12 Option A and under option C than they would; similar to YECL,
13 they would be by far the minority of the customers.

14 Q. You mentioned residential. Would there be general
15 service customers as well?

16 A. MR. BOWMAN: Yes, same situation, yes.

17 Q. Thank you. Now, can you comment on what's the benefit
18 of a rate design policy that may only impact electrical
19 energy consumption decisions of 2 percent of residential
20 customers and general service customers who consume precisely 17:24
21 20,000 kilowatt hours per month?

22 A. MR. BOWMAN: I have the table in front of me
23 that I think will help answer the question, but perhaps I'll
24 get to you put it -- can you ask it one more time just to --

25 Q. Sure. If you can explain what the benefit is of a rate

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 design policy that only impacts electric energy consumption
2 designs, or may impact, 2 percent of residential customers
3 and general service customers, and also then, general service
4 -- first it's the residential customers, and then general
5 service customers who consume precisely 20 kilowatt hours per
6 month.

7 A. MR. OSLER: 20,000.

8 Q. 20,000, sorry.

9 A. MR. BOWMAN: Perhaps we can go through each
10 of them individually.

17:25

11 Q. Okay.

12 A. MR. BOWMAN: On the residential side, the
13 Option C proposal is similar to the Option A proposal and
14 similar to the Leading Edge proposal as it -- that we just
15 went with Mr. Maissan. That the turnaround point tends to be
16 for customers in the range of 13, 14, 1,500 kilowatt hours a
17 month. Above that level is approximately 10 percent of the
18 bills sent out in a year in Yukon. So we would -- we call
19 that 10 percent of customers; but, to be precise,
20 approximately 10 percent of the bills in Yukon fall into that
21 range, people who would pay more under this set of proposals
22 at the end of the day on their bill.

17:25

23 The other 90 percent would also be affected,
24 they would just be affected in the other direction; they
25 would pay less. The effect on customers, though, isn't only

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 related to that factor, it's also related to what is the
2 marginal rate that a customer sees which is what gives them
3 price signals to act or to pay more if they use more energy
4 or receive greater benefits if they save energy. And in that
5 regard, even customers below 1,500 kilowatt hours, the
6 customers all the way down to a thousand kilowatt hour, are
7 at a point in the rate billing distribution where every extra
8 kilowatt hour they buy costs them a bit more than it would
9 have under the old system. Even though their bill is lower,
10 the kilowatt hours they're adding are higher priced. And
11 every kilowatt hour they can save is also higher priced, so
12 meaning greater savings to them.

17:26

13 So overall, if you're focusing on price
14 signals and affecting usage, which I noted earlier would --
15 isn't necessarily the core of the proposal, but it is an
16 outcome, that price signal is not in fact targeted to
17 2 percent of the customers. It's targeted to everybody who
18 starts to use the 1,001 kilowatt hour every month. They
19 start it see effects from this set of options, whether it's A
20 or C or Leading Edge, that is oriented towards overall
21 increasing costs -- I'll go to general service in a moment.

17:27

22 A. MR. OSLER: Just on the residential, and I
23 don't think YEC's position has ever been that Option A would
24 only affect -- was a rate design policy approach that would
25 only affect electrical energy decisions of people, of 2

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 percent of the residential customers. I mean, Option A, as
2 looked at here, showing increases well below the 2,500 number
3 that is associated with that 2 percent, 2,500 kilowatt hours
4 a month. So I think Option A is saying that anybody who is
5 assuming over 1,500 is going to get a very definite price
6 signal, and they're going to have impacts of over 10 percent
7 by the time they get to 1,800.

8 So just to put those comments in context, with
9 Option A, it's a fair question with Option C where we've
10 moved the block up to 2,500 and the impact is only more than 17:28
11 3 percent or 3.2 percent for those who are over 2,500, and
12 why would we do that when it's only 2 percent? And the
13 answer is, we don't recommend that as a long-term approach.
14 We recommend making sure the block is moved down towards
15 where it was in Option A so that more people are affected.
16 So all the other comments Mr. Bowman made are incorporated in
17 that, you know, are incorporated in that. So do general
18 service.

19 A. MR. BOWMAN: In respect to general
20 service -- dealing with general service, for those people who 17:28
21 have been involved for a while, they'll note that
22 Yukon Energy flagged the difficulty of dealing with the
23 general service class as far back as its GRA and indicated it
24 would need time with YECL to try to sort this out. As part
25 of this process, we've done a very good job, and we've sorted

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 it out for 98 percent of the customers. All those customers
2 using up to about 20,000 a month. For all practical purposes
3 we've created small general service rate class, people who
4 use up to 20,000 a month.

5 In that small general service rate class,
6 customers have three -- essential class. People face three
7 rate blocks just like they would as a residential customer.
8 Those rate blocks are inclining, just like a residential
9 customer. You've got a certain quantity of energy,
10 2,000 kilowatt hours a month at a basic price, you receive 17:29
11 another quantity, 13,000 kilowatt hours, at a second tier
12 price, and you receive your last 5,000 kilowatt hours in that
13 block at a higher price which is representative of the same
14 thing we were charging the residential side for the run-out
15 rate for the major systems.

16 The only exception to the general service
17 class is that when you get above 20,000, you cross a
18 threshold. Now you're dealing with a very few number of
19 customers, 2 percent -- a hundred customers, frankly -- some
20 of whom are government; some of whom are non-government, and 17:30
21 they're a very different nature of customer than all of --
22 than the 98 percent of customers up to 20,000. And those
23 customers very much need to be dealt with in a different
24 manner. They're proposed by Yukon Energy to be the basis of
25 a future rate class or sub class. Some of that language

1 needs some further work as we go forward, but to be treated
2 more analogous to the way we would think about something like
3 the industrial class where you can't just say, well, a big
4 general service customer should use 50,000. If they're above
5 that, we're going to charge them a higher rate. Because
6 you're trying to mix a mechanic shop and a hospital and say
7 that somehow they're at all comparable. Instead what you
8 have to do is start to say, no, I've got to look at the
9 individual characteristics of this customer and try to sort
10 it out.

17:31

11 When we were going through this application,
12 this was a very active topic in British Columbia, who was
13 trying to deal with a new rate class for general service
14 customers, oriented towards an overriding need to make sure
15 those customers had an efficiency price signal. That's a
16 fundamental policy objective of the BC regulation and the BC
17 government at this point in time. Efficiency price signals
18 and -- reflecting incremental cost has to be built into rates
19 for all of the customer classes, and BC was one of the first
20 ones to take on how the heck you do this for large general
21 service customers. People figured out how to do it for
22 industrial. Yukon was ahead of the curb on that. People
23 have figured out how to do it for residential and for small
24 general service. Larger general service is a challenge.

17:31

25 And when we were setting out on this, we note

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 that in BC people were filing thousand-page proposals and a
2 bunch of different things that were just being debated, and
3 it seemed to us that we weren't going to solve every problem
4 this time. That there was an opportunity to treat these
5 customers more like the industrial or the wholesale customers
6 where the very large guys would have the opportunity to have
7 a pricing put in place closer to when diesel was actually
8 being run so we had some time to deal with them. There are
9 people whose electricity bills are very large, so the issues
10 matter them, and they pay attention to them better than a 17:32
11 corner store where their electricity bills are a relatively
12 small component of their overall cost structure. So that we
13 had time, and we could learn from the wisdom of what
14 ultimately BC and some other jurisdictions who were trying to
15 wrestle with this did.

16 The 20,000-kilowatt-hour customer is not a
17 magical needle point or something, if you like. It is the
18 large customer in the small general service class. Just like
19 the large house in the residential class sees more of an
20 impact than the small houses. The large customer in the 17:32
21 small general service class sees more of an effect than the
22 smaller customers, and in those -- and in that regard, we
23 sought to have the two classes very parallel and consistently
24 treated.

25 Q. Now, I refer you to YUB-12(a), and my question also

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 relates to Option A. Now, I note that the following part of
2 your response that:

3 ...as part of an overall rate design
4 structure intended to provide efficient
5 runoff price signals, Option A is
6 preferable as approximately 10.3
7 percent of customers will see some
8 units typically very few actual
9 kilowatt hours consumed at the runoff
10 rate, which is a reasonable proportion
11 of the population so as to make this
12 provision effective. Option B provides
13 the same signal to only about 1.7
14 percent of residential customers.

17:34

15 Now, if the rate design for the runoff block only affects a
16 few actual kilowatt hours for any of the options, then is it
17 likely that either a small or insignificant part -- is this
18 only a small or insignificant part of most of the customer's
19 monthly bill?

20 A. MR. OSLER: Yes. And all of that was
21 written during the IR process before we had got to the next
22 round of discussions in the Option C. So it capsulates why,
23 as a long-term measure, we didn't think you would want to
24 have the rate block at 2,500; you should have it closer to,
25 1,500. But in order to start the process of getting a runoff

17:35

1 rate up where we think it should be, Option C allows us to do
2 that.

3 Q. Okay. And can you tell me if you used -- or what
4 criteria you used in determining from that quote what was a
5 reasonable proportion of the population? You said that
6 10.3 percent of customers was a reasonable proportion of the
7 population. Was that based on any criteria?

8 A. MR. BOWMAN: Not 10.3 in relation to, say,
9 11 or 10 or something. Not in terms of the precise
10 mathematics. It was focussed on -- the concept that you want 17:36
11 to get it -- a rate in place that starts to tackle the
12 overall set of rate signals and re-establishes the type of
13 regime that was here in the '90s, that in doing so -- at that
14 time, people were dealing with a thousand as the only cutoff,
15 which was affecting about 30 percent of customers, and that
16 that type of direction is where there's going to be a need to
17 start to wrestle with this system when there is substantial
18 diesel or that type of high-cost resource being used, and
19 that in that mixture, ten is the type of number that is
20 actually a notable step towards where one needs to go and 17:37
21 that 1.7 of -- probably is not.

22 We did have some opportunity to review some
23 experience in other places where people focussed on median
24 bills and that sort of thing, but we found that when -- at
25 the end of the day, when up got down to it, Yukon had some

1 benchmarks historically, the thousand-kilowatt-hour cutoff,
2 for example, and that we were cognizant that the thousand a
3 month kilowatt hour was not easily able to be implemented up
4 to 20 to 22-cent range that we've been saying needed to be
5 there. So beyond that, it was judgment, you know.

6 Q. All right. Now, based on the blocking and pricing
7 levels proposed in Option A, does YEC expect any impact of
8 this structure on forecast sales?

9 A. MR. BOWMAN: I think this goes back to the
10 questions we were dealing with earlier from Ms. Kellgren. 17:38
11 The forecast sales for the test year are fixed, and certainly
12 those are the numbers they are. The forecast sales going
13 forward, we would expect your overall -- as an overall class,
14 we're not changing them out to be recovered, so to the extent
15 that people have something like a residential elasticity rate
16 that you could do some analysis, it's not going to be useful
17 in this context, because overall you're not making
18 residential customers pay more, you're just changing it
19 within that class. But more so I think it goes to
20 Mr. Osler's comment that your -- the type of timeframe that 17:39
21 people talk about for the very small short-run elasticities
22 or very small changes to your load at best, due to price
23 changes in the type of timeframe that you would have for a
24 GRA, we wouldn't expect a material change in the -- in the
25 overall sales. And by the time one is back for the next GRA,

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 those types of changes can be incorporated. I think if we're
2 really focusing on what might happen to sales as a result of
3 changes, the thing people -- it's important to recognize that
4 it's the net cost to the customer that drives their
5 elasticity, not just that rate. It's the sum total of all
6 the things going on in the bill. And as we pointed out
7 earlier, if you're sitting here trying to figure out what
8 might happen to the load due to bill changes, far and away
9 the biggest fact is the IER. And that coming off or staying
10 on whatever may happen -- end up happening to that. At in
11 point, the basic assumption is any interim means something.
12 And so, therefore, you know, March 31st being the date that
13 people assume that would come off. That has a far bigger
14 effect on bills than any of the -- any of the -- for the vast
15 majority of customers than anything we're dealing with in
16 these rate changes.

17:40

17 A. MR. OSLER: With one comment. If you look
18 at Table 2, as long as you have a meaningful runoff rate, at
19 least level -- Option C, removal of the IER will still mean
20 that the highest bill impacts will be felt by the largest
21 users. If you don't -- if you go to Option B -- the only
22 people that have the high impact are all the people that --
23 you know, if you don't change the rates, then the impact is
24 biggest for the people that consume under a thousand at
25 various levels.

17:40

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 So it's not a short-term effect that we -- I
2 think, as we've said, will be there, but we think setting the
3 right price and telling people we're going to move towards
4 the pricing that we're proposing both will affect longer-term
5 consumption, to the extent that price can't.

6 Q. So then for Option C -- in comparison, would Option C
7 then show more of an impact on -- and I understand you're
8 saying future, but on forecast sales or the structure of
9 forecast of -- Option C structure on forecast sales?

10 A. MR. OSLER: Relative to B, Option B, yes.
11 But if we're sitting here just, you know, discussing it wide
12 open, somebody could say: Well, Option B could move up too
13 some day in the future, but there's no signal as to how it's
14 going to move and when it's going to move, whereas Option C,
15 adopted the way we're proposing it, would say we are going to
16 20 cents, and that means that somebody who is a very large
17 user, the 10 or 12 or whatever it is that are -- 5,000
18 kilowatts a month, will see an increase of 30 percent. And
19 we will have started dealing with those very, very large
20 users and getting them into this regime. We can then back
21 that up as time goes and affect more people and also talk
22 about moving it up at a higher level. As people know that,
23 that's a very clear message. It's more the message than the
24 profound impact that Option A had on their bill tomorrow
25 morning, but having listened to all the discussions, we came

17:41

17:42

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 to the conclusion that getting the game started with a
2 meaningful message and a signal of the type we're talking
3 about was the key thing that YEC was interested in, and if
4 Option C can manage to achieve that, then deferring the full
5 effects of an Option A till later is fine.

6 Q. Okay, thank you. Now, if I can refer you to YUB-15,
7 regard surplus hydro. I note that in your response, you
8 state that based on load forecasts in the Mayo B Part 3
9 application that Yukon Energy indicated that material
10 baseload generation would be required in the 2012 to 2017
11 period. Can you please provide revised forecasts in service
12 dates -- or a revised forecast in service dates for the
13 Aishihik third turbine and the Mayo B project?

17:43

14 A. MR. OSLER: There is no revision to in
15 service dates for the Mayo B from what we gave the Board
16 during the hearing. It's still on schedule for the end of
17 2011. And work during this summer, to the best of my
18 knowledge, I've just come back from vacation but I've had
19 brief briefings on it, is that's what we were looking for for
20 this summer. In terms of the Aishihik third turbine, I'm not
21 as much up to speed.

17:44

22 A. MR. MOLLARD: My understanding from recent
23 discussions with the project engineers is that it will be
24 fall of 2011, September/October, in that area.

25 Q. All right. Thank you. Now, this relates to the YEC PPA

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 application for the Alexco mine near Mayo with the mine
2 expected to be energized in October of 2010, or part of the
3 mine site. Now, will this incremental mine load exceed the
4 surplus hydro currently on the Mayo-Dawson system?

5 A. MR. OSLER: Our evidence before was that
6 the forecast -- and we haven't seen material changes to the
7 forecast loads for Alexco from what we talked about before.
8 They're probably somewhat different today than in that PPA
9 application than what we had in the Mayo B discussions, Part
10 3 application, but they're not materially different. If
11 anything, the load will ramp up a bit faster than taking two
12 years. It will go up over after the first year.

17:45

13 Our discussion I think in the Mayo B hearing
14 was that we thought that over a year that load would be
15 enough to push the Mayo system into having to use diesel, but
16 it probably is pretty sensitive to the timing winter/summer.
17 So, yes, it takes that system to the point where it's
18 certainly not having any robust surplus and probably has some
19 baseload diesel, particularly during the winter months.

20 And the Carmacks-Stewart transmission project,
21 Stage 2, which is in service date for next spring, before the
22 summertime, at least by then, that project will, of course,
23 mean the two grids will be integrated before Mayo B comes on,
24 as we were talking about, and therefore the issue for, quote,
25 surplus or non-surplus and baseload, et cetera, is now an

17:46

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 integrated grid issue by the time Mayo B comes on.

2 And all the numbers that we gave you for the
3 different scenarios in that hearing are still probably the
4 best numbers we have at the moment. You know, we knew that
5 Alexco was coming on some time this year. So now you have
6 confirmation that indeed it's been hooked up and is coming on
7 commercially in October. So we have, at the minimum, loads
8 that we talked about of Alexco and Minto, and Minto is
9 certainly at least as robust as when we were talking to you
10 last time.

17:47

11 Carmacks Copper mine has been deferred, at
12 best, because of issues to do with the Water Board. So we
13 know that's here. But we have other files that are engaging
14 our attention for the 2014 time period that we're busy
15 assessing. And, of course, domestic growth. If anything,
16 the shutdown of the secondary sales has surged some of the
17 domestic load that's now firm.

18 Q. With reference to the Carmacks-Stewart Stage 2 and the
19 integration, will the incremental mine load, the Alexco one
20 that we've just been speaking of, will there be a need for
21 firm diesel generation on the combined WAF and Mayo-Dawson
22 systems?

17:48

23 A. MR. OSLER: With Mayo B as well?

24 Q. Yes.

25 A. MR. OSLER: Yes, our forecast we gave you,

1 even under that scenario without Carmacks Copper, the
2 analysis in the Mayo B application was that there would still
3 be baseload diesel on the integrated grid starting in 2012,
4 and that would still be the best assessment we have, assuming
5 normal water flows and nothing to do with draught or things
6 like that. Average water flows, sorry. And I have to get
7 -- we have to get our terminology. Diesels and average water
8 flows are enough to drive us to -- long-term average of all
9 the years.

10 Q. Thank you. With respect to the application, your Tab 4
11 at page 7, it states that:

17:49

12 "The Yukon Energy 2008/09 General Rate
13 Application, filed September 2008,
14 addressed overall rate decreases for
15 Yukon retail ratepayers that are
16 incorporated in Table 4.3. As part of
17 that GRA, Yukon Energy addressed retail
18 rate design issues and, to begin
19 restoring efficient pricing for runoff
20 rate blocks, proposed to focus the
21 retail rate decrease on 'first block'
22 consumption in each rate class and also
23 to increase price signals in 'second
24 block' residential consumption
25 resulting concurrently in lower 'first

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 block' residential rates."

2 Now, can you please explain how is it efficient to propose a
3 rate decrease in the first block consumption for residential
4 customers when the revenue to cost ratio for the rate class
5 is significantly less than one?

6 A. MR. BOWMAN: Well, we have two realities
7 that we have to deal with. In that GRA, Yukon Energy was
8 bringing forward a rate decrease, an overall rate decrease,
9 that was intended to reflect the benefits of the
10 Carmacks-Stewart project and bringing Minto mine on the 17:51
11 system and using a greater quantity of the surplus hydro, and
12 in bringing that forward, it was there to lower rates. Those
13 were ultimately approved by the Board, and today the rates
14 have been reduced, 2.47 percent if I remember correctly, on
15 average.

16 At that time, we had the same Order-in-Council
17 constraint that we have now which says: You can't change
18 rates to one class in relation to the rates to another class.
19 So if you're going to give 2.47 percent reduction overall you
20 have to give every class 2.47 percent. 17:51

21 So once you're into now the residential box,
22 if you like, we know we're giving residential customers a
23 2.47 percent decrease. The question is where to put it.

24 In that hearing, Yukon Energy had some of the
25 things we're talking about today on its mind, admittedly not

1 quite as refined but some of the things that we're talking
2 about on its mind, and had some of the same concerns that, if
3 anything, the runoff rates, the second block price signals
4 were too low, and so proposing a rate decrease to the runoff
5 rates didn't seem to be a prudent thing to do.

6 It also wouldn't have been suggesting to
7 reduce the customer charge. We now have the evidence to back
8 that up, that it wouldn't have been suggesting to reduce the
9 customer charge. So you're left with one component of the
10 rate, the first block rates.

17:52

11 If there had not been an Order-in-Council
12 saying that you can't reduce rates -- or you can't, I'm
13 sorry, rebalance rates, then the question would have come
14 given I have 2.47 percent -- I forget what it equates to in
15 dollars -- but given that we have a material rate decrease,
16 who should get the decrease? It could be that in that
17 context someone would come in and say: Whatever you do,
18 don't give it to the residential class, they're not paying
19 their costs.

20 I assume at that point with the evidence
21 available, the argument would have gone: Make sure you give
22 it to the government customers because they're paying above
23 their costs. I'm not sure how that argument would have gone
24 over in a hearing. But I don't think the premise for
25 developing the project and bringing it into -- on line and

17:53

1 building Carmacks Stewart was to reduce the rates for
2 government.

3 So I think it reflected the intentions of the
4 project, the intentions of the rate decrease, and it
5 reflected the constraints from the Order-in-Council combined
6 with the fact that while we were looking for lower rates,
7 while we were bringing in a rate decrease and the revenue
8 requirement was lower, you really didn't -- we didn't see it
9 as advisable to apply that rate decrease to the second block.

10 One of the realities we're dealing with today
11 is that ultimately out of that hearing the Board said do it
12 over an overall basis, a flat basis. So several block rates
13 were decreased, as were the customer charge, as was the first
14 block. And so that's part of the base plan we use today on
15 the current rates.

17:53

16 A. MR. OSLER: Essentially your question is
17 why was this package an efficiency measure? Because it
18 raised the runoff rate, and it did not reduce it, and the
19 result, given the rules, was that the first block rate went
20 down.

17:54

21 What does that mean in terms of long term if
22 you're going to get rebalancing of these rates? It means
23 that the whole class will have to pay more but that the
24 efficiency signals for the runoff rate, whatever that maybe,
25 whatever that area is, will be based on one set of rules and

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 the balance will have to be addressed by the balance of the
2 class.

3 So moving forward on a runoff rate with or
4 without a change in the -- with or without the rebalancing
5 happening in the future we viewed as a good thing, and the
6 future will be the future. I mean, in the near term, if you
7 look at the terminations as advertised, the IER will be
8 coming off and those first block people will see a reduction
9 in rates due to the Carmacks Stewart line and the Minto, but
10 they'll see an overall effect on bills because of the removal
11 IER.

17:54

12 So, I mean, I don't know how the future will
13 unfold in terms of government policy, but I try and grapple
14 with what we can in terms of rates.

15 A. MR. BOWMAN: If I can just add one other
16 item here, I think it may relate to a few different
17 questions, but when we're getting into talking about what
18 signals are being provided to customers, I think we have to
19 be careful with the underlying premise that anybody who uses,
20 you know, 999 kilowatt hours is not going to get a signal of
21 some form because they're at a range where their bill's
22 lower. I don't think a customer opening their bill and
23 seeing 900 kilowatt hours is going to say, you know, "I've
24 got room to up my usage in the cheap stuff." I think they're
25 going to be -- to the extent they pay attention to rates,

17:55

1 they're going to be well aware that they're getting pretty
2 close to the level where it starts to cost more, and even at
3 range, you may find a practical human response that is not
4 necessarily a strict economic response.

5 So I think in some of the things that we're
6 talking about, even going to Option C, when the numbers are
7 on the bill and the rates are there and it's clear that, yes,
8 I'm in the good range but I sure don't want to be in that
9 other one, if that's the interpretation someone takes of
10 their bill, humans will react as they do.

17:56

11 Q. Sorry, are you done?

12 A. MR. OSLER: Yes.

13 Q. Now, referring you to page 8 of Tab 4 of the
14 application, and it's going back to Option A, and you state
15 that:

16 "Option A, as set out in this
17 Application, was jointly developed to
18 incorporate these rate structures into
19 rates consistent with past practice in
20 Yukon, normal rate design principles,
21 and future underlying characteristics
22 of the system. Option A increased
23 retail runoff rates to reflect 80
24 percent of 2009 incremental supply
25 costs, and thereby concurrently

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 resulted in notable rate decreases to
2 the first block rates in each retail
3 class. As a result, under Option A
4 ..."

5 and, to a similar extent, for Option C, and that's my
6 addition,

7 "... and the vast majority of customers
8 are provided with rate reductions
9 compared to present rate levels
10 (overall bill impacts for residential
11 non-government customers will continue
12 to be affected by the IER subsidy)"

13 as you were just saying.

14 Now, by focussing only on the larger, higher
15 consuming customers, those greater than 1500 kilowatt hours
16 per month for residential, does this lead to a form of rate
17 discrimination, and if you can please explain whether it does
18 or doesn't?

19 **A. MR. OSLER:** **In the sense of regulation and**
20 **the need to avoid undue discrimination, in our view obviously**
21 **it does not or we wouldn't have recommended it. And**
22 **Mr. Bowman can elaborate. In terms of how you might assess**
23 **this in a pragmatic sense, I mean, look outside of Yukon and**
24 **see what people are paying for using more than certain first**
25 **block rates when they're in areas that have any issues of the**

17:58

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 type we're talking about here.

2 So the concept of charging people more beyond
3 the first block has been policy in Yukon and reflected in Old
4 Crow and in small diesel communities in the past and today,
5 and nobody thinks twice about it because it reflects the
6 incremental costs in the past for those communities, and it's
7 way above first block. That's just the way it should be
8 because that reflects the incremental cost.

9 The big advantage -- the big benefit of the
10 original Order-in-Council was that these people all got
11 funded up to 1,000 for the same rate as the person in
12 Whitehorse without having to have a government subsidy to do
13 it, and for the first 2,000 kilowatt hours for general
14 service without a government subsidy to do it.

17:59

15 So I think there are lots of precedents in
16 northern Manitoba, Northwest Territories, Québec,
17 Newfoundland, northern Saskatchewan, where the type of two
18 block rates and charging people more above that level based
19 on incremental -- full incremental costs, 30 cents, 40 cents,
20 not 20 cents, have been well accepted and implemented to
21 reflect the diesel price changes in the last 14 years. So I
22 don't think there's any basis that we could see for someone
23 to argue that this is discrimination, let alone undue
24 discrimination, that should be avoided by this Board given
25 its Order-in-Council directions, past precedents, and normal

17:59

1 principles in Canada for dealing with similar situations,
2 et cetera.

3 THE CHAIR: Ms. Bentivegna, would this be a
4 good time to take a break or I'll leave to it your
5 discretion?

6 MS. BENTIVEGNA: I've only got a few more
7 questions, only a few more, and then depending on the answer,
8 it could be quick, it could be slow.

9 THE CHAIR: I take it you're saying no.

10 MS. BENTIVEGNA: Well, Mr. Chair, as I said,
11 there's only I believe three more questions.

12 THE CHAIR: No. Proceed.

13 Q. MS. BENTIVEGNA: Now, with reference to page 14
14 of the application, the Tab 4, and the Order-in-Council
15 1995-90, in the retail rates for government customers,
16 Section 5(1), it states:

17 "The Board must fix rates for
18 government customers so that the rate
19 for government customers in a community
20 may not be lower than the rate for
21 similar service to non-government
22 retail customers in that community."

23 Has any consideration been given to equalizing government and
24 non-government rates for residential customers?

25 A. MR. OSLER: No.

18:00

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 Q. Is there any reason?

2 A. MR. OSLER: Sorry?

3 Q. Is there any reason that that subject has not been
4 approached in the discussions?

5 A. MR. OSLER: Yes.

6 Q. All right. Okay, I'll ask the follow-up question: Can
7 you please tell me what those are?

8 A. MR. OSLER: Well, it hasn't been a burning
9 issue that anybody's raised. The government is paying for
10 it. Nobody has raised it that they are wanting to see dealt
11 with quickly. But Mr. Mollard can add to more if you need
12 more. But I'm not aware of any discussion or consideration
13 of it, and I know that we're trying to avoid as many changes
14 that would distract attention. The government rate issue is
15 the government rate issue, and I don't think we've been
16 interested in trying to put a toe in that water at all at the
17 moment.

18:02

18 Q. Okay.

19 A. MR. BOWMAN: I would only add that I would
20 think it's probably a reasonable reading of the
21 Order-in-Council against rebalancing that that merging
22 classes, it somehow raises one and lowers the other is
23 probably captured by that type of language.

18:02

24 Q. Okay. Thank you. Now, with regards to I believe the
25 application at page 12 and then your response to UCG-9(a) --

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 or it's the YECL response 9(a). Well, if you go first to the
2 application, and you don't need to turn to it, it's just more
3 to give you the reference for my question or setting the
4 parameters. In the application on page 1-12, it states:

5 "It is important to design rates with
6 regard to firm loads that send the
7 appropriate price signal based on the
8 current costing environmental."

9 And then in the UCG-9(a) response, the YECL response was
10 that:

11 "The meaning of this sentence is to
12 suggest that while runoff rates are
13 designed to reflect the short-run
14 incremental costs, rates should
15 ultimately reflect cost causality."

16 Now, does YEC agree that rates should ultimately reflect cost
17 causality?

18 A. Just trying to keep our minds working. It's an
19 interesting

20 MR. OSLER: I'm just trying to keep our
21 minds working. It's an interesting connection. It's a very
22 broad statement that the companies both agreed to, on page
23 1-12. The interpretation of the phrase "cost causality" in
24 the response to UCG-1-9 and elsewhere may have some specific
25 overtones that do not necessarily reflect common parlance.

18:03

18:04

1 So generally speaking, people have said and the principals
2 that we've all agreed to is that rates, among other things,
3 should reflect efficiency price signals, economy and
4 efficiency, as well as all the other principles that we
5 talked about earlier, and the balancing, of course, is what's
6 required to make rates and make decisions.

7 The issue of cost causality, as I understand
8 the terminology to be used in a response like this, is
9 somewhat different, saying: Effectively you shouldn't have a
10 rate if there isn't underlying costs that is affected by the 18:05
11 person being charged that rate, if I can sort of put it in
12 that language.

13 So, if we were to charge a 20 cent runoff rate
14 in the WAF zone to even the Option C customers, but we really
15 don't have diesel moving up and down, depending on how those
16 customers react, I get the feeling that that's what the cost
17 causality means in the way in which the terminology is used
18 in this response, and the suggestion is that if you don't
19 have that type of relationship, you shouldn't have that type
20 of price. 18:06

21 I don't agree with that. When we had a
22 surplus on the system, we didn't reduce the runoff rate to
23 zero or some much lower number in order to get people in the
24 short term to consume a lot of power. We actually kept it at
25 the same number that was the runoff rate in 1996 when we had

1 the Faro Mine operating and diesel was on the margin.

2 I think the issue for a system like this is to
3 think about where we're going, what type of price you need,
4 and move people towards it and not get fixated on the type of
5 thought that I think is underlying, a constraint on doing
6 what we are suggesting should be done.

7 Q. Okay, thank you. And yes, I am down to my last
8 question -- or two questions. Now, it relates to again Tab
9 4, page 11, and my question is: How is the block structure
10 in terms of kilowatt hours for residential rates as proposed
11 in Option A determined and the same question for Option C?

18:07

12 A. MR. OSLER: Sorry, I missed something.

13 Q. Sorry, yes, just how did the companies arrive at Option
14 A for the block structures in terms of kilowatt hours for
15 residential rates?

16 A. MR. OSLER: You mean under Option A 1500?

17 Q. Yes.

18 A. MR. OSLER: That 1,000, 1500, et cetera,
19 versus Option C, else, how did we arrive at that?

20 Q. Yes. Basically the size of each block and how was that
21 determined for Option A and Option C.

18:07

22 A. MR. OSLER: Option C, I can tell you right
23 now was determined -- because that was the number under
24 Option B, and it was an attempt to get peace and move
25 forward, and the rationale, therefore, for why Option B was

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 developed, you can ask someone else. Option A...

2 A. MR. BOWMAN: It was a balancing of the need
3 to accept the fact that an interim block was required, that
4 it couldn't simply be two blocks in this context. And that
5 in creating that interim block, there was a need to make it
6 meaningful. It wasn't going to be 1,000 to 1100, or
7 something of that nature, and it capture a reasonable number
8 of customers, but at the same time, try to deal with the
9 factors that I set out earlier, that the cutoff was intended
10 to be at a point where you still had 10 percent of customers,
11 or so, who would actually be using the third block rather
12 than putting in a third block that was so limited in its
13 application that it was of very little value.

18:08

14 It was -- this is a discretionary point. It's
15 not -- you know, it's not mathematically calculated. You
16 don't come up 1474.2 being the cutoff, or something, and it
17 reflected the best balance that the two parties working
18 together to come up with when they worked together to develop
19 Option A as a comprehensive option.

20 The difference between that and Option C is
21 simply the key need to reflect in Option C process and
22 progress, and if it's going to be set at 2500 today and
23 capture less than 2 percent of customers, the view with
24 Option C is that it's not merely the number, it's the premise
25 that has this become the first priority for bringing this

18:09

1 number down to the point where it moves toward the Option A
2 level and begins to catch a meaningful number of customers.

3 A. MR. OSLER: In essence, when the initial
4 thoughts were there for general service and residential
5 customers, the final block is as the term was used for
6 general service meaning after 1500, before you get to 20, for
7 the normal small customer. The size of use and the number of
8 customers in those blocks were reasonably concordant as
9 distinct from being discordant, and I think that was -- the
10 people who were working on it took account of that.

18:10

11 So, we did look and as for looking at other
12 options such as 2000, and things like that, and there's no
13 reason why you couldn't look at all those things, but for a
14 hearing like this, trying to make a major change in the road,
15 we thought we'd just keep it simple and focus on the original
16 which we think is a good long-term thought process and the
17 other one saying it might work as a starting point.

18 We don't seem too have an argument over the
19 blocks with the general service, but the challenge there
20 would be in the future dealing with the large users and
21 creating that situation. And just for the record, it doesn't
22 necessarily mean you have to create another class. You might
23 just create two billing structures within the class. So, you
24 know, there are a range of options people have to think
25 about.

18:10

1 But we agree that there's a different group of
2 people there that needed to be differently, and we both
3 agreed on how to go about tackling. So, the irony that is is
4 the problem we thought we'd have the most difficulty working
5 on we've come the closest to solving and the one we didn't
6 know we had is the one you have today in terms of choice,
7 residential versus general service.

8 Q. Sorry, what was that last?

9 A. MR. OSLER: When I was here for the GRA, we
10 thought that the big issue we'd need to sit down with YECL to
11 deal with was how to come up with blocks and deal with the
12 general service, we've agreed on that. We didn't know that
13 we'd have a bunch of issues -- have some issues to bring
14 before you on choices, and they're mostly in the residential
15 sector in terms of blocks.

18:11

16 MS. BENTIVEGNA: All right, thank you. Thank
17 you, panel. Those are my questions. Thank you, Mr. Chair.

18 THE CHAIR: We'll take a 15-minute break,
19 and then when we return, I think we can dismiss this panel
20 now, and we'll return with the YECL panel to begin. And I
21 suspect they have a little bit of an opening statement, and
22 then we'll go right to City of Whitehorse.

18:12

23 Mr. Landry, is there anything that you would
24 like to do further with your panel?

25 MR. LANDRY: There is no redirect, thank

E. MOLLARD, C. OSLER, P. BOWMAN

Questions by Ms. Bentivegna

1 you.

2 THE CHAIR: No redirect. So we'll adjourn
3 for 15 minutes.

4 MR. LANDRY: Can I assume the panel is
5 dismissed then.

6 THE CHAIR: The panel is dismissed then.
7 Thank you.

8 (PANEL STANDS DOWN)

9 (ADJOURNMENT)

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25



- I N D E X -

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

VOLUME 2BE. MOLLARD, C. OSLER, P. BOWMAN

Cross-Examination by Ms. Kellgren	338
Cross-Examination by Mr. Buonaguro	375
Cross-Examination by Mr. Maissan	419
Questions by Ms. Bentivegna	439

UNDERTAKINGS GIVEN

UNDERTAKING - to provide a chart that outlines consumption by month	349
UNDERTAKING - TO ADVISE AS TO WHAT THE OUTSTANDING BALANCES WERE AT THE TIME ADJUSTMENTS TO RIDER F WERE MADE OR WERE REQUIRED OVER THE PAST FIVE YEARS	440
UNDERTAKING - TO PROVIDE A NUMERICAL EXAMPLE OF HOW THE ERA OPERATES AS REFERRED TO	451

VOLUME 2AC. OSLER, E. MOLLARD, P. BOWMAN, S. DUNCAN, N. PALLADINO, B. DESJARLAIS (For YEC/YECL)

Examination in Chief by Mr. Landry (undertakings)	338
Questions by Ms. Bentivegna	375

E. MOLLARD, C. OSLER, P. BOWMAN (For YEC)

Opening Statement	439
Cross-Examination by Ms. Kellgren	349

EXHIBITS

EXHIBIT NO. B-16 - DOCUMENT RE ANSWER TO UNDERTAKING NO. 2 AT VOLUME 1A, PAGE 58	440
EXHIBIT NO. B-17 - DOCUMENT RE UNDERTAKING NO. 3 AT VOLUME 1B, PAGE 115	451



1

UNDERTAKINGS GIVEN

2

UNDERTAKING - TO PROVIDE THE NUMERICAL
EXPLANATION OFFERED BY MR. BOWMAN WITH REGARD TO
INDUSTRIAL COINCIDENT PEAK AND EDLA STUDY MATTER,
AS DISCUSSED

4

5

UNDERTAKING - TO ADVISE WHETHER THE COMPANIES
PROVIDE SERVICE TO ANY MULTI-RESIDENTIAL SITES
THAT ARE SERVED THROUGH A SINGLE METER

6

VOLUME 1B

7

8

C. OSLER, E. MOLLARD, P. BOWMAN, S. DUNCAN, N.
PALLADINO, B. DESJARLAIS (For YEC/YECL)

9

Cross-Examination by Mr. Buonaguro 105

10

Cross-Examination by Mr. Maissan 148

11

Questions by Ms. Bentivegna 175

12

UNDERTAKINGS GIVEN

13

UNDERTAKING - TO REVIEW THE COMPANIES' DATA AND
PROVIDE THE OUTAGE DATA FOR THE AISHIHIK PLANT
FROM 1994 TO 2005 (SEE YUB NO. 4(C)) 115

15

UNDERTAKING - TO PRODUCE A COPY OF THE STUDY IN
ALBERTA THAT IS REFERRED TO IN UCG NO. 18(B) 135

16

17

UNDERTAKING - WITH RESPECT TO CW-29(B), TO ADVISE
WHAT THE PLANS ARE TO DEVELOP A SUITE OF
YUKON-SPECIFIC DSM INITIATIVES FOR DISCUSSION
WITH CUSTOMERS AND STAKEHOLDER GROUPS 144

18

19

UNDERTAKING - WITH RESPECT TO THE RESPONSE TO
LE-YEC/YECL 1-31, TO ADVISE IN RELATION TO THE
CATEGORIES (D) AND UP IF THEY WERE NEW PROJECTS
OR IF THEY WERE A NUMBER OF CUSTOMERS THAT WERE
PART OF ONE PROJECT (SEE TEXT) 152

20

21

22

UNDERTAKING - TO ADVISE WHETHER THE NUMBERS IN
2007, WHERE THERE ARE MULTIPLE CUSTOMERS
INVOLVED, IT IS INFORMATION ON THE SAME BASIS AS
YUKON ELECTRIC OR WHETHER IT IS NUMBERS OF
PROJECTS AS OPPOSED TO NUMBER OF CUSTOMERS (SEE
LE-YEC/YECL 1-31) 154

23

24

25

26

UNDERTAKING - TO CHECK AND ADVISE AS TO THE
COINCIDENCE FACTOR FOR INDUSTRIAL CUSTOMERS 221

27



1

VOLUME 1A

2

C. OSLER, E. MOLLARD, P. BOWMAN, S. DUNCAN, N.
PALLADINO, B. DESJARLAIS (For YEC/YECL)

3

Examination in Chief by Mr. Landry 13

4

Cross-Examination by Ms. Kellgren 24

5

Cross-Examination by Mr. Buonaguro 48

6

7

UNDERTAKINGS GIVEN

8

UNDERTAKING - TO PROVIDE THE 2011 AND 2012 RATE 47
IMPACTS AT \$1,500 FOR THE RESIDENTIAL CLASS

9

UNDERTAKING - TO PROVIDE A TABLE WHICH SETS OUT 58
THE EFFECTS OF THE CHANGES TO THE COST OF SERVICE
REFERRED TO BY MR. BOWMAN (SEE EXHIBIT B-9)

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27



\$	360:2, 360:21, 361:6, 362:3, 365:22, 387:23, 454:24 100.00 [1] - 422:7 105 [1] - 491:9 108 [1] - 378:3 11 [3] - 352:9, 466:9, 485:9 11.4 [1] - 390:1 1100 [1] - 486:6 113.24 [3] - 390:23, 390:24, 391:15 115 [2] - 490:26, 491:13 116 [4] - 377:12, 377:14, 377:15, 378:4 12 [13] - 352:4, 352:9, 376:3, 377:16, 377:24, 378:13, 378:14, 379:19, 395:20, 447:21, 448:9, 469:17, 482:25 12-year [1] - 444:23 1250 [2] - 408:25, 431:19 13 [3] - 352:9, 459:16, 492:3 13.000 [1] - 462:11 13.2 [2] - 388:19, 389:18 13.75 [2] - 435:18, 438:3 135 [1] - 491:15 14 [7] - 352:4, 365:15, 367:10, 438:3, 459:16, 480:21, 481:13 14-cent [1] - 352:9 14.3 [1] - 388:21 144 [1] - 491:17 1474.2 [1] - 486:16 148 [1] - 491:10 15 [5] - 365:19, 399:23, 410:25, 438:3, 489:3 15-minute [1] - 488:18 1500 [3] - 408:20, 408:24, 409:15, 457:21, 479:15, 485:16, 485:18, 487:6 1500-kilowatt-hour [1] - 373:4 152 [1] - 491:19 154 [1] - 491:22 16 [4] - 352:4, 435:5, 435:18, 438:3 175 [1] - 491:11 18(B) [1] - 491:16 18.01 [2] - 431:22, 431:23 18.8 [1] - 409:6 186 [1] - 336:4 19 [1] - 412:15 19(a) [2] - 338:9, 338:11 1990s [1] - 370:6 1993 [1] - 417:20 1994 [1] - 491:14 1995 [1] - 417:21 1995-90 [4] - 367:3, 419:10, 449:3, 481:15 1996 [2] - 339:24, 484:25 1999-04 [1] - 417:18 1999-4 [2] - 414:15, 453:7 1999-6 [1] - 414:14 1:00 [1] - 336:23 1A [2] - 490:25, 492:1 1B [2] - 490:26, 491:6 1st [1] - 385:25	2	22.39 [1] - 434:5 221 [1] - 491:26 224 [1] - 379:19 23 [2] - 386:20, 400:4 24 [5] - 391:6, 391:11, 391:16, 492:4 24.7 [2] - 388:20, 389:18 25 [6] - 351:22, 352:8, 365:23, 391:6, 391:16, 431:3 25(a) [1] - 423:9 25.77 [1] - 351:23 2500 [6] - 378:3, 378:16, 379:18, 455:14, 455:21, 486:22 26 [1] - 352:8 27-something [1] - 392:1 27.99 [1] - 386:22 2A [2] - 336:22, 490:16 2B [2] - 337:4, 490:3	47 [1] - 492:8 48 [1] - 492:5 4th [2] - 431:17, 431:18 4YEC [1] - 386:20
70s [1] - 402:1 80s [2] - 398:24, 402:1 90s [3] - 341:4, 369:17, 375:6, 414:2, 428:25, 429:22, 430:23, 466:13 92 [1] - 340:13 93 [1] - 370:7 96 [2] - 351:15, 417:21 97 [2] - 351:15, 359:10 first [2] - 473:21, 473:25 second [1] - 473:23 x [1] - 378:23	2 [29] - 350:19, 350:20, 374:12, 388:12, 388:13, 389:24, 420:2, 432:8, 432:22, 432:24, 433:9, 433:15, 435:22, 438:17, 455:11, 455:20, 458:19, 459:2, 460:17, 460:25, 461:3, 461:12, 462:19, 468:18, 471:21, 472:18, 486:23, 490:25 2.000 [4] - 355:13, 356:20, 462:10, 480:13 2.500 [10] - 352:1, 353:9, 353:15, 435:9, 435:21, 461:2, 461:3, 461:10, 461:11, 465:24 2-cent [2] - 433:16, 433:18 2.47 [5] - 474:14, 474:19, 474:20, 474:23, 475:14 2.66 [1] - 391:24 20 [17] - 355:8, 356:8, 357:22, 365:19, 365:23, 365:24, 429:20, 433:7, 434:5, 434:6, 437:22, 459:5, 467:4, 469:16, 480:20, 484:13, 487:6 20,000 [9] - 455:16, 456:1, 458:21, 459:7, 459:8, 462:2, 462:4, 462:17, 462:22 20,000-kilowatt- hour [1] - 464:16 2000 [1] - 487:12 2002 [1] - 336:4 2005 [1] - 491:14 2007 [5] - 377:7, 377:16, 378:1, 378:2, 491:23 2008 [3] - 442:3, 442:6, 473:13 2008-2009 [1] - 456:5 2008/09 [1] - 473:12 2009 [13] - 336:8, 342:2, 342:6, 376:25, 377:2, 397:15, 421:14, 421:15, 430:25, 442:3, 456:24, 457:2, 478:24 2010 [3] - 336:21, 337:5, 471:2 2011 [5] - 349:12, 350:12, 470:17, 470:24, 492:8 2012 [7] - 364:4, 364:7, 366:8, 398:5, 470:10, 473:3, 492:8 2014 [1] - 472:14 2017 [1] - 470:10 21.3 [2] - 388:20, 389:19 22 [2] - 355:8, 365:24 22-cent [2] - 356:8, 467:4	22 [2] - 386:20, 400:4 24 [5] - 391:6, 391:11, 391:16, 492:4 24.7 [2] - 388:20, 389:18 25 [6] - 351:22, 352:8, 365:23, 391:6, 391:16, 431:3 25(a) [1] - 423:9 25.77 [1] - 351:23 2500 [6] - 378:3, 378:16, 379:18, 455:14, 455:21, 486:22 26 [1] - 352:8 27-something [1] - 392:1 27.99 [1] - 386:22 2A [2] - 336:22, 490:16 2B [2] - 337:4, 490:3	47 [1] - 492:8 48 [1] - 492:5 4th [2] - 431:17, 431:18 4YEC [1] - 386:20	
1	3	3	5	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	3 [20] - 338:8, 338:11, 387:7, 387:8, 390:5, 420:2, 420:3, 434:3, 436:11, 436:18, 438:18, 452:14, 452:16, 457:24, 461:11, 470:8, 471:10, 490:26 3.000 [7] - 377:12, 377:14, 377:17, 378:13, 378:14, 378:21, 432:15 3-cent [1] - 387:10 3.2 [1] - 461:11 3.4 [1] - 390:3 30 [5] - 427:7, 431:4, 466:15, 469:18, 480:19 30-cent [1] - 427:9 3100 [1] - 377:22 31st [2] - 349:12, 468:12 338 [2] - 490:5, 490:18 349 [2] - 490:10, 490:22 375 [2] - 490:6, 490:19 3:30 [1] - 406:13	3 [20] - 338:8, 338:11, 387:7, 387:8, 390:5, 420:2, 420:3, 434:3, 436:11, 436:18, 438:18, 452:14, 452:16, 457:24, 461:11, 470:8, 471:10, 490:26 3.000 [7] - 377:12, 377:14, 377:17, 378:13, 378:14, 378:21, 432:15 3-cent [1] - 387:10 3.2 [1] - 461:11 3.4 [1] - 390:3 30 [5] - 427:7, 431:4, 466:15, 469:18, 480:19 30-cent [1] - 427:9 3100 [1] - 377:22 31st [2] - 349:12, 468:12 338 [2] - 490:5, 490:18 349 [2] - 490:10, 490:22 375 [2] - 490:6, 490:19 3:30 [1] - 406:13	5 [11] - 349:14, 350:2, 350:4, 350:6, 350:7, 350:8, 350:9, 351:9, 391:25, 418:22, 431:17 5(1) [1] - 481:16 5.000 [2] - 462:12, 469:17 50 [2] - 352:22, 431:3 50,000 [1] - 463:4 500 [1] - 436:18 58 [2] - 490:25, 492:9	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	4	4	6	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	4 [12] - 386:12, 397:17, 401:18, 414:14, 420:9, 433:19, 436:18, 457:25, 473:10, 478:13, 481:14, 485:9 4(C) [1] - 491:14 4.1A [1] - 455:19 4.3 [1] - 473:16 4.6 [2] - 386:20, 420:13 40 [1] - 480:19 419 [1] - 490:7 42 [2] - 452:14, 452:17 439 [2] - 490:8, 490:21 440 [2] - 490:12, 490:24 451 [2] - 490:14, 490:26	4 [12] - 386:12, 397:17, 401:18, 414:14, 420:9, 433:19, 436:18, 457:25, 473:10, 478:13, 481:14, 485:9 4(C) [1] - 491:14 4.1A [1] - 455:19 4.3 [1] - 473:16 4.6 [2] - 386:20, 420:13 40 [1] - 480:19 419 [1] - 490:7 42 [2] - 452:14, 452:17 439 [2] - 490:8, 490:21 440 [2] - 490:12, 490:24 451 [2] - 490:14, 490:26	6 [5] - 336:21, 337:5, 338:8, 338:11, 350:4 60 [1] - 385:9	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	7	7	8	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	7 [1] - 473:11 7-5 [1] - 405:15 70 [1] - 352:22 700 [1] - 378:21 71 [1] - 437:21 71.5 [1] - 386:2 72 [1] - 433:23	7 [1] - 473:11 7-5 [1] - 405:15 70 [1] - 352:22 700 [1] - 378:21 71 [1] - 437:21 71.5 [1] - 386:2 72 [1] - 433:23	8 [2] - 357:21, 478:13 80 [9] - 338:21, 352:23, 433:5, 433:22, 437:15, 437:20, 453:25, 454:10, 478:23	
1 [15] - 374:12, 375:15, 388:12, 389:24, 390:12, 390:24, 420:2, 432:8, 432:22, 432:25, 433:9, 433:15, 435:22, 455:7 1.000 [16] - 347:18, 356:14, 356:20, 388:18, 389:12, 389:17, 389:25, 390:22, 391:6, 391:10, 391:13, 391:24, 480:11, 485:18, 486:6 1.001 [1] - 460:18 1.300 [1] - 436:6 1.400 [2] - 436:6, 436:7 1.500 [14] - 352:1, 353:14, 354:11, 355:13, 356:4, 435:7, 435:10, 435:25, 436:5, 437:14, 459:16, 460:5, 461:5, 465:25 1.800 [1] - 461:7 1-12 [2] - 483:4, 483:23 1-31 [2] - 491:20, 491:25 1.7 [2] - 465:13, 466:21 1/2 [1] - 437:21 10 [13] - 357:21, 366:12, 395:20, 418:6, 436:24, 437:1, 459:17, 459:19, 459:20, 461:6, 466:9, 469:17, 486:10 10-cent [1] - 427:7 10.3 [3] - 465:6, 466:6, 466:8 100 [16] - 338:18, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 353:11, 354:17,	8	8	9	
1 [

345:4, 354:24, 354:25, 356:11, 369:18 accomplished [2] - 338:6, 369:20 accordance [3] - 339:11, 339:13, 341:2 accord [1] - 362:17 accordingly [1] - 362:21 account [19] - 338:23, 364:14, 364:15, 378:7, 427:13, 427:14, 427:17, 440:3, 440:8, 440:11, 440:13, 441:9, 441:20, 442:5, 442:9, 443:22, 444:5, 444:10, 487:10 accounting [2] - 426:11, 426:24 accounts [10] - 378:11, 400:7, 400:13, 417:23, 441:17, 441:24, 444:6, 452:10, 454:14 accurate [1] - 379:7 accurately [1] - 352:16 achieve [6] - 342:24, 355:7, 355:19, 357:25, 372:21, 470:4 achieved [1] - 365:22 achieves [1] - 372:16 acknowledged [2] - 340:6, 446:22 acronym [1] - 389:5 Act [1] - 336:3 act [3] - 372:23, 381:3, 460:3 acted [1] - 339:24 actions [1] - 372:19 active [2] - 371:21, 463:12 activities [1] - 413:11 activities [1] - 443:2 acts [1] - 339:23 actual [6] - 342:14, 377:7, 379:25, 383:22, 465:8, 465:16 actuals [1] - 413:16 acute [2] - 344:2, 368:16 adapting [1] - 371:4 add [12] - 346:6, 358:3, 371:14, 372:8, 377:23, 378:3, 391:25, 402:24, 445:24, 477:15, 482:11, 482:19 added [1] - 398:8 adding [4] - 387:5, 390:14, 391:15, 460:10 addition [2] - 390:12, 479:6 additional [1] - 423:19 address [7] - 365:8, 370:4, 400:3, 406:19, 413:2, 433:17, 449:5 addressed [4] - 446:13, 473:14, 473:17, 477:1 addresses [1] - 442:20 addressing [1] - 406:25	adds [1] - 391:14 adequate [2] - 453:24, 454:2 adjourn [1] - 489:2 ADJOURNMENT [2] - 411:1, 489:9 adjusted [3] - 362:21, 443:10, 443:11 adjusting [1] - 371:4 adjustment [14] - 361:2, 413:17, 439:12, 439:22, 439:24, 440:6, 440:10, 440:11, 441:4, 443:24, 444:12, 444:23, 445:16, 448:23 ADJUSTMENTS [2] - 440:25, 490:12 adjustments [9] - 341:2, 341:5, 360:25, 440:18, 441:5, 444:6, 444:24, 445:18, 446:1 administrative [1] - 405:23 admittedly [1] - 474:25 adopt [2] - 363:20, 364:17 adopted [2] - 448:16, 469:15 adroitly [2] - 348:21, 349:1 advance [4] - 340:7, 340:10, 343:16, 344:16 advanced [5] - 341:16, 341:20, 346:9, 406:20, 446:20 advantage [1] - 480:9 adverse [1] - 455:12 adversely [3] - 457:4, 457:10, 457:11 advertised [1] - 477:7 advisable [1] - 476:9 ADVISE [7] - 440:23, 490:12, 491:4, 491:17, 491:20, 491:22, 491:26 advised [1] - 344:7 advocated [1] - 446:19 affect [5] - 438:18, 460:24, 460:25, 469:4, 469:21 affected [16] - 353:1, 353:2, 384:4, 434:10, 434:11, 434:13, 446:12, 446:16, 457:1, 457:10, 457:12, 459:23, 459:24, 461:15, 479:12, 484:10 affecting [6] - 396:23, 403:22, 404:1, 433:24, 460:14, 466:15 affects [2] - 447:10, 465:15 affluent [2] - 380:19, 380:22 afford [2] - 380:21, 382:18 afternoon [3] - 375:4, 401:18, 439:9 agencies [3] - 382:20, 385:22,	411:24 ago [3] - 346:19, 401:25, 443:12 agree [13] - 340:20, 341:25, 342:2, 349:21, 355:2, 355:9, 390:16, 422:21, 422:23, 423:6, 483:16, 484:21, 488:1 agreed [7] - 355:19, 418:7, 418:21, 483:22, 484:2, 488:3, 488:12 agreeing [2] - 353:18, 447:1 agreement [3] - 414:10, 453:8 agreements [1] - 453:9 ahead [4] - 373:15, 423:5, 439:25, 463:22 air [3] - 402:2, 407:10, 407:11 AISHIHIK [1] - 491:14 Aishihik [3] - 423:21, 470:13, 470:23 ALBERTA [1] - 491:16 alerted [1] - 432:1 Alexco [5] - 471:1, 471:7, 472:5, 472:8, 472:19 aligned [1] - 345:9 all-diesel [1] - 352:19 allocated [1] - 387:24 allow [5] - 357:22, 363:12, 418:23, 419:16, 427:20 allowed [1] - 364:20 allows [2] - 423:22, 466:1 alluded [1] - 341:7 alluding [2] - 341:8, 341:9 almost [5] - 393:10, 395:7, 425:14, 436:19, 447:20 alone [1] - 480:23 alternatively [1] - 393:8 alternatives [1] - 381:4 amended [1] - 336:4 amendments [1] - 454:6 American [1] - 403:8 amount [19] - 358:14, 358:19, 358:22, 358:23, 359:14, 387:6, 389:7, 389:8, 389:10, 389:13, 389:14, 389:16, 390:4, 394:16, 407:6, 438:7, 438:8, 441:19, 441:23 amounts [3] - 414:19, 443:17, 444:5 analogous [1] - 463:2 analogy [3] - 358:9, 396:18, 403:2 analysis [4] - 369:1, 392:21, 467:16, 473:2 AND [6] - 491:3, 491:13, 491:18, 491:20, 491:26, 492:8 and... [1] - 349:24	announced [1] - 437:11 announcements [1] - 374:13 annual [4] - 347:12, 375:23, 379:4, 423:21 answer [25] - 343:6, 343:9, 364:10, 372:10, 375:5, 385:12, 385:15, 385:16, 387:20, 399:25, 400:1, 405:17, 409:21, 410:11, 412:20, 417:6, 431:7, 446:6, 448:5, 457:24, 458:10, 458:23, 461:13, 481:7 ANSWER [1] - 490:24 answered [2] - 397:13, 431:1 answers [2] - 396:15, 456:14 anticipate [1] - 421:5 anticipated [1] - 434:22 ANY [1] - 491:5 anyway [2] - 395:23, 421:4 apartment [1] - 381:22 apologize [2] - 398:18, 398:23 Appendix [1] - 455:19 Application [4] - 336:7, 336:8, 473:13, 478:17 application [34] - 366:25, 369:4, 371:25, 377:4, 377:7, 378:5, 386:10, 387:2, 387:4, 392:12, 405:16, 412:16, 412:23, 412:24, 412:25, 413:5, 416:5, 417:19, 417:24, 418:10, 452:14, 463:11, 470:9, 471:1, 471:9, 471:10, 473:2, 473:10, 478:14, 481:14, 482:25, 483:2, 483:4, 486:13 applications [1] - 387:10 applied [5] - 359:20, 414:1, 414:5, 414:7, 414:22 applies [3] - 392:18, 418:5 apply [8] - 352:17, 414:11, 414:13, 414:24, 425:7, 430:1, 456:19, 476:9 appreciated [2] - 434:23, 451:14 apprehension [1] - 395:3 approach [10] - 340:22, 344:11, 354:8, 357:9, 363:11, 363:20, 387:14, 415:17, 460:24, 461:13 approached [1] - 482:4 approaches [1] - 384:13 approaching [1] -	427:6 appropriate [9] - 371:8, 381:16, 382:20, 405:20, 406:2, 410:24, 411:24, 415:16, 483:7 appropriately [1] - 416:7 approval [1] - 370:8 approve [4] - 339:11, 339:18, 341:12, 454:9 approved [15] - 338:21, 386:2, 386:6, 386:15, 386:25, 387:3, 387:11, 387:13, 407:15, 417:21, 421:14, 422:5, 449:17, 453:17, 474:13 April [2] - 345:24, 350:12 ARE [3] - 491:5, 491:17, 491:23 area [7] - 352:25, 358:20, 384:22, 396:21, 435:19, 470:24, 476:25 areas [3] - 352:23, 363:17, 479:25 arguably [4] - 338:15, 340:7, 340:18, 346:20 argue [2] - 447:12, 480:23 arguing [1] - 446:24 argument [10] - 340:7, 340:22, 341:13, 341:15, 447:3, 453:19, 453:22, 475:21, 475:23, 487:18 arise [2] - 405:12, 447:24 arises [5] - 405:11, 424:2, 427:2, 441:21, 441:25 arising [1] - 377:3 arose [1] - 415:9 arrive [2] - 485:13, 485:19 AS [8] - 440:23, 451:20, 490:12, 490:15, 491:3, 491:23, 491:24, 491:26 aside [4] - 393:19, 397:21, 399:19, 431:6 aspect [1] - 367:24 assess [1] - 479:22 assessing [1] - 472:15 assessment [5] - 427:18, 427:25, 428:8, 456:13, 473:4 assets [8] - 359:8, 359:13, 359:16, 359:23, 361:3, 426:24, 427:5, 428:9 assigned [1] - 426:2 assistance [2] - 411:25, 412:2 associated [3] - 391:13, 404:18, 461:3 assume [5] - 354:7, 383:20, 468:13, 475:20, 489:4 assumed [1] - 447:3 assuming [9] - 339:12, 344:8, 349:18, 363:19,
--	--	---	---	---

379:11, 393:5, 397:17, 461:5, 473:4 assumption [3] - 339:18, 342:22, 468:11 assurance [1] - 450:15 AT [5] - 440:24, 490:12, 490:25, 490:26, 492:8 attached [2] - 407:10, 457:25 attempt [1] - 485:24 attempts [1] - 383:13 attention [12] - 340:23, 354:15, 370:12, 416:24, 418:13, 418:14, 443:15, 446:10, 464:10, 472:14, 477:25, 482:14 attentive [2] - 382:15, 382:20 attribute [1] - 447:17 attributes [3] - 392:13, 393:7, 437:14 August [1] - 377:19 automatically [1] - 407:11 availability [3] - 397:16, 423:22, 451:5 available [10] - 378:9, 379:10, 424:7, 424:11, 424:13, 425:24, 427:23, 427:24, 475:21 average [25] - 357:11, 360:10, 375:22, 375:24, 376:1, 376:6, 377:14, 397:16, 397:18, 398:21, 398:25, 399:11, 399:16, 399:21, 413:22, 421:25, 423:21, 427:23, 430:20, 456:13, 456:15, 473:6, 473:7, 473:8, 474:15 averages [1] - 347:13 averaging [3] - 387:17, 387:18, 398:1 avoid [6] - 393:21, 395:4, 412:12, 416:19, 479:20, 482:13 avoiding [1] - 480:24 aware [2] - 478:1, 482:12 awful [1] - 360:15	balanced [11] - 346:1 balances [7] - 344:2, 440:18, 441:3, 442:11, 443:1, 443:13, 444:13 BALANCES [2] - 440:24, 490:12 balancing [3] - 344:1, 484:5, 486:2 ballpark [2] - 385:8, 441:10 bar [1] - 435:10 base [10] - 376:19, 380:24, 390:14, 420:10, 420:11, 420:15, 421:16, 427:15, 428:8, 476:14 based [28] - 345:10, 346:4, 347:12, 351:19, 360:6, 364:10, 364:13, 377:2, 377:7, 389:24, 395:5, 398:13, 400:11, 401:2, 401:3, 401:15, 402:5, 404:15, 405:21, 413:17, 422:20, 440:12, 466:7, 467:6, 470:8, 476:25, 480:18, 483:7 baseload [21] - 394:13, 394:14, 396:13, 396:17, 397:5, 398:6, 398:10, 398:15, 401:18, 403:10, 403:21, 403:22, 421:3, 421:17, 421:24, 455:9, 456:6, 470:10, 471:19, 471:25, 473:3 bases [1] - 390:10 basic [2] - 462:10, 468:11 BASIS [1] - 491:23 basis [19] - 340:18, 343:13, 364:16, 368:25, 390:8, 397:16, 397:20, 412:7, 422:22, 422:24, 427:23, 452:24, 453:1, 453:3, 456:16, 462:24, 476:12, 480:22 bat [1] - 341:21 BC [6] - 357:14, 463:16, 463:19, 464:1, 464:14 bears [3] - 415:2, 415:5, 451:1 became [1] - 446:22 become [3] - 399:7, 434:12, 486:25 becomes [3] - 424:7, 426:22, 450:25 becoming [2] - 399:9, 445:11 beforehand [1] - 411:11 begin [3] - 406:4, 473:18, 488:20 beginning [1] - 443:10 begins [1] - 487:2 behavior [1] - 412:11 behaviour [2] - 408:8, 408:20 behind [2] - 382:13, 386:22 below [3] - 438:6, 460:5, 461:2	benchmarks [1] - 467:1 benefit [9] - 338:5, 352:19, 352:21, 359:8, 371:20, 435:14, 458:17, 458:25, 480:9 benefits [9] - 397:15, 405:22, 407:4, 407:5, 427:17, 430:17, 456:11, 460:4, 474:9 benefivegna [1] - 490:8 BENTIVEGNA [7] - 439:8, 439:9, 451:17, 481:6, 481:10, 481:13, 488:16 Benefivegna [4] - 337:8, 481:3, 490:19, 491:11 beside [1] - 435:1 best [12] - 340:25, 346:15, 349:11, 369:1, 438:14, 454:4, 467:22, 470:17, 472:4, 472:12, 473:4, 486:17 better [2] - 454:1, 464:10 between [21] - 350:4, 352:6, 357:10, 357:21, 364:20, 366:14, 374:11, 396:9, 397:4, 406:23, 414:10, 417:19, 417:25, 426:21, 433:14, 435:18, 438:7, 440:3, 446:3, 454:21, 486:20 beyond [5] - 419:2, 422:16, 427:11, 467:5, 480:2 big [18] - 355:20, 366:12, 374:16, 401:7, 404:23, 415:23, 430:19, 435:6, 435:17, 437:15, 437:23, 440:9, 440:10, 443:14, 463:3, 480:9, 488:10 bigger [4] - 427:22, 435:19, 438:8, 468:13 biggest [7] - 367:9, 367:10, 407:24, 437:21, 448:6, 468:9, 468:24 bill [43] - 350:8, 350:9, 350:13, 352:17, 354:2, 372:5, 373:6, 373:22, 374:15, 374:16, 376:22, 376:23, 377:17, 377:22, 378:1, 378:16, 381:15, 388:18, 390:1, 390:3, 390:23, 390:25, 391:6, 391:8, 391:9, 391:15, 391:16, 392:7, 409:2, 436:1, 436:25, 437:4, 459:22, 460:9, 465:19, 468:6, 468:8, 468:20, 469:24, 477:22, 478:7, 478:10, 479:10 bill's [1] - 477:21 billing [6] - 343:12, 343:14, 377:3, 457:25, 460:7, 487:23	bills [27] - 349:17, 350:4, 350:21, 376:2, 376:5, 376:7, 376:13, 377:5, 377:16, 378:20, 379:18, 383:18, 411:22, 432:13, 433:24, 433:25, 434:9, 434:11, 435:23, 436:23, 459:18, 459:20, 464:9, 464:11, 466:24, 468:14, 477:10 Bills [1] - 375:18 bit [26] - 343:17, 356:2, 357:2, 357:20, 359:23, 363:9, 369:8, 383:9, 393:15, 393:17, 396:14, 396:15, 401:12, 402:3, 404:4, 404:17, 405:1, 410:19, 418:20, 427:7, 437:4, 442:8, 458:1, 460:8, 471:11, 488:21 blame [1] - 356:17 blaming [1] - 396:15 blended [1] - 363:16 block [94] - 351:17, 351:25, 352:2, 352:3, 352:7, 353:6, 353:9, 353:19, 353:20, 354:13, 355:4, 355:9, 355:11, 356:10, 356:15, 357:12, 357:15, 357:19, 357:20, 358:6, 359:18, 359:22, 360:4, 360:18, 361:4, 361:5, 361:11, 362:1, 362:12, 362:17, 374:6, 377:5, 383:17, 383:19, 383:21, 383:23, 390:9, 390:12, 408:10, 408:14, 413:12, 419:24, 419:25, 420:1, 420:5, 433:21, 434:11, 434:12, 434:25, 436:13, 436:16, 436:20, 437:14, 438:1, 438:7, 438:8, 438:21, 438:23, 439:1, 446:16, 446:20, 447:1, 448:11, 461:10, 461:14, 462:13, 465:15, 465:24, 474:3, 475:3, 475:10, 476:9, 476:12, 476:14, 476:19, 477:8, 479:2, 479:25, 480:3, 480:7, 480:18, 485:9, 485:14, 485:20, 486:3, 486:5, 486:11, 486:12, 487:5 Block [16] - 420:2, 432:22, 432:24, 432:25, 433:9, 433:15, 434:3, 435:22, 436:11, 438:17, 438:18, 457:24 block' [3] - 473:21, 473:24, 474:1 blocking [3] - 363:3, 374:6, 467:6 blocks [24] - 351:16, 353:8, 355:20,	355:22, 355:23, 357:5, 365:9, 419:12, 419:13, 419:21, 419:23, 433:8, 435:3, 446:5, 447:9, 447:13, 462:7, 462:8, 473:20, 486:4, 487:8, 487:19, 488:11, 488:15 Blocks [1] - 420:2 board [4] - 414:10, 414:14, 414:15, 417:18 Board [44] - 337:1, 337:8, 337:9, 339:10, 339:18, 339:23, 339:24, 340:1, 340:5, 340:12, 340:20, 341:2, 347:6, 349:4, 350:3, 350:16, 362:15, 364:12, 364:17, 366:10, 369:9, 369:16, 370:7, 370:25, 392:14, 398:13, 411:12, 417:21, 419:22, 434:24, 438:14, 439:7, 443:12, 445:5, 450:18, 453:17, 453:22, 454:8, 470:15, 472:12, 474:13, 476:11, 480:24, 481:17 Board's [4] - 340:13, 350:22, 416:9, 417:6 boils [3] - 363:6, 363:8, 364:14 Bonbright [2] - 392:11, 392:18 Bonbright's [2] - 392:13, 393:7 borrowed [1] - 436:22 bothered [2] - 447:1, 458:6 bottom [1] - 395:23 bought [2] - 421:1, 421:2 bounds [3] - 439:11, 439:21, 439:24 BOWMAN [80] - 337:17, 342:5, 343:3, 343:9, 344:12, 345:6, 347:14, 348:18, 349:20, 350:6, 351:12, 351:15, 359:3, 360:22, 366:23, 368:18, 372:7, 375:24, 376:24, 377:2, 377:15, 378:6, 378:19, 379:20, 380:25, 381:18, 382:11, 382:25, 386:19, 393:5, 393:22, 395:13, 400:24, 404:13, 408:16, 409:12, 409:20, 412:21, 414:5, 420:14, 420:17, 420:20, 421:8, 421:20, 422:3, 423:16, 423:25, 424:14, 424:17, 426:4, 436:3, 436:8, 441:15, 443:20, 444:2, 445:17, 448:5, 449:22, 450:20, 451:9, 451:11, 457:13, 458:16, 458:22, 459:9,
--	---	--	--	---

B

459:12, 461:19, 466:8, 467:9, 474:6, 477:15, 482:19, 486:2, 490:4, 490:17, 490:20, 491:2, 491:7, 492:2, 492:10 bowman [2] - 360:5, 449:1 Bowman [14] - 346:10, 358:1, 365:7, 379:8, 393:4, 402:23, 403:15, 428:10, 433:2, 435:8, 442:21, 451:18, 461:16, 479:22 Bowman's [5] - 396:11, 396:18, 397:6, 429:12, 445:25 Bowman.. [1] - 343:2 box [1] - 474:21 brain [1] - 452:4 break [12] - 342:2, 378:3, 406:11, 406:12, 410:19, 410:23, 411:11, 418:22, 438:5, 458:2, 481:4, 488:18 breakdown [2] - 426:6, 450:24 breakout [1] - 379:13 breaks [1] - 378:18 brief [4] - 416:3, 430:3, 430:5, 470:19 briefings [1] - 470:19 briefly [2] - 342:12, 369:10 bring [5] - 361:5, 404:3, 439:1, 488:13 bringing [6] - 474:8, 474:10, 474:12, 475:25, 476:7, 486:25 brings [1] - 366:10 British [1] - 463:12 broad [2] - 417:13, 483:22 broader [3] - 340:14, 416:21, 418:14 brought [2] - 370:5, 370:6 build [3] - 418:15, 431:7, 431:8 building [1] - 476:1 buildings [1] - 381:22 built [5] - 423:19, 424:9, 424:10, 425:23, 463:18 bulk [3] - 382:13, 423:14, 456:19 bullet [1] - 445:19 bumps [1] - 374:7 bunch [3] - 443:2, 464:2, 488:13 Buonaguro [6] - 337:13, 410:18, 411:2, 490:6, 491:9, 492:5 BUONAGURO [8] - 375:2, 375:3, 406:10, 406:14, 410:15, 410:20, 411:4, 411:7 Buonaguro.. [1] - 374:21 burned [1] - 360:16 burning [1] - 482:8 business [1] - 402:25 busy [2] - 396:20, 472:14 buy [1] - 402:21,	403:19, 431:9, 460:8 buying [2] - 354:6, 403:13 BY [4] - 349:8, 490:11, 491:2, 492:10 B's [1] - 447:16 C calculate [2] - 391:19, 432:2 calculated [3] - 352:16, 422:8, 486:15 calculation [2] - 420:9, 433:18 calculations [3] - 352:20, 386:22, 390:18 Canada [2] - 365:13, 481:1 cannot [1] - 381:9 capability [1] - 404:17 capable [1] - 410:4 capacities [1] - 369:16 capacity [4] - 394:7, 407:4, 407:19, 423:20 capital [3] - 340:16, 420:24, 425:23 capsulates [1] - 465:22 capture [2] - 486:7, 486:23 captured [1] - 482:23 care [6] - 380:20, 380:22, 384:1, 384:2, 430:21, 453:14 careful [6] - 354:19, 354:20, 382:12, 399:10, 443:23, 477:19 Carmacks [10] - 397:12, 398:5, 398:8, 471:20, 472:11, 472:18, 473:1, 474:10, 476:1, 477:9 Carmacks-Stewart [3] - 471:20, 472:18, 474:10 carried [1] - 444:9 carries [1] - 359:22 carry [3] - 371:23, 395:25, 396:2 carryover [1] - 405:11 carving [1] - 426:24 case [8] - 350:14, 359:4, 367:17, 377:21, 396:4, 398:25, 408:9, 451:12 cases [1] - 435:17 catch [3] - 375:21, 388:8, 487:2 catching [1] - 390:17 CATEGORIES [1] - 491:20 categories [1] - 432:11 category [1] - 377:23 caught [1] - 404:15 causality [5] - 483:15, 483:17, 483:23, 484:7, 484:17 causes [2] - 345:22, 354:4 causing [2] - 391:4, 451:4 caution [1] - 443:23 caveats [1] - 374:5	cent [1] - 484:13 cents [27] - 351:22, 352:5, 352:8, 355:8, 357:21, 357:22, 365:19, 365:23, 365:24, 386:22, 387:7, 387:8, 427:6, 427:7, 431:4, 433:7, 434:6, 435:5, 435:18, 437:22, 441:11, 469:16, 480:19, 480:20 certain [15] - 342:20, 358:8, 373:22, 378:20, 382:5, 383:18, 394:3, 394:4, 413:13, 429:13, 436:15, 444:4, 455:13, 462:9, 479:24 certainly [19] - 340:14, 346:8, 348:17, 348:20, 364:5, 371:10, 372:25, 381:24, 382:3, 384:17, 397:7, 401:10, 409:22, 426:12, 438:20, 452:11, 467:11, 471:18, 472:9 cetera [5] - 366:16, 447:2, 471:25, 481:2, 485:18 CHAIR [22] - 337:18, 337:21, 338:2, 338:10, 338:12, 349:5, 374:20, 374:25, 406:12, 410:18, 410:22, 411:2, 411:6, 418:18, 439:4, 451:15, 481:3, 481:9, 481:12, 488:18, 489:2, 489:6 Chair [3] - 337:6, 349:3, 488:17 chair [7] - 337:20, 337:24, 338:13, 374:19, 375:3, 419:6, 481:10 chairman [1] - 439:3 challenge [8] - 366:3, 366:12, 367:9, 382:17, 410:1, 463:24, 487:19 challenges [5] - 343:14, 346:13, 347:6, 366:20, 366:22 chance [1] - 366:22 change [34] - 342:11, 343:16, 345:17, 346:23, 352:12, 365:17, 365:18, 370:2, 385:2, 385:3, 388:2, 390:19, 390:25, 391:10, 393:13, 408:10, 409:11, 409:12, 412:11, 416:16, 421:25, 428:20, 446:17, 447:19, 448:8, 450:25, 451:4, 453:10, 467:24, 468:23, 474:17, 477:4, 487:14 changed [1] - 367:12 changes [22] - 343:11, 364:2, 364:7, 367:11, 369:23, 374:10, 382:9, 384:6, 385:6, 390:6, 400:5, 448:11, 450:7,	467:22, 467:23, 468:1, 468:3, 468:8, 468:16, 471:6, 480:21, 482:13 CHANGES [1] - 492:10 changing [6] - 354:18, 367:25, 433:7, 434:25, 467:14, 467:18 characteristic [1] - 436:8 characteristics [3] - 357:6, 463:9, 478:21 characterize [1] - 380:19 charge [9] - 373:6, 425:3, 431:3, 457:4, 463:5, 475:7, 475:9, 476:13, 484:13 charged [7] - 342:23, 363:17, 403:11, 413:21, 441:19, 453:21, 484:11 charges [3] - 366:18, 414:23, 414:24 charging [5] - 356:18, 437:24, 462:14, 480:2, 480:18 chart [4] - 347:24, 351:4, 412:6, 412:9 CHART [2] - 349:7, 490:10 charts [1] - 347:10 cheap [4] - 371:16, 401:10, 405:1, 477:24 check [2] - 386:17, 440:1 CHECK [1] - 491:26 checking [1] - 449:1 cherry [2] - 416:5, 416:12 cherry-picking [2] - 416:5, 416:12 Chief [2] - 490:18, 492:3 choice [3] - 404:20, 434:5, 488:6 choices [1] - 488:14 choose [3] - 382:6, 394:17, 394:18 chunk [1] - 430:6 circulated [1] - 375:10 circumstance [1] - 381:12 circumstances [1] - 385:2 City [3] - 337:14, 423:9, 488:22 clarification [1] - 431:15 clarify [3] - 339:6, 339:19, 400:9 clarity [1] - 453:21 Clarke [1] - 337:9 class [36] - 342:3, 349:22, 351:8, 351:10, 358:8, 358:14, 358:24, 361:7, 364:21, 369:3, 409:16, 461:23, 462:3, 462:5, 462:6, 462:17, 462:25, 463:3, 463:13, 464:18, 464:19, 464:21, 467:13, 467:19, 473:22, 474:4, 474:18, 474:20, 475:18,	476:23, 477:2, 479:3, 487:22, 487:23 CLASS [1] - 492:8 classes [6] - 358:19, 373:20, 387:23, 463:19, 464:23, 482:22 clean [3] - 442:15, 443:22, 443:25 clear [8] - 349:3, 368:21, 370:23, 418:3, 441:2, 455:9, 469:23, 478:7 clearly [2] - 445:4, 453:13 lobbered [1] - 399:20 close [3] - 398:20, 436:6, 478:2 closely [1] - 425:11 closer [5] - 353:14, 361:6, 428:25, 464:7, 465:24 closest [1] - 488:5 clue [1] - 398:15 coal [1] - 405:1 cognizant [1] - 467:2 COINCIDENCE [1] - 491:26 COINCIDENT [1] - 491:3 colleague [1] - 432:4 colleagues [2] - 355:22, 404:6 collect [2] - 388:3, 440:12 collectively [1] - 356:4 College [1] - 337:2 Columbia [1] - 463:12 column [5] - 347:11, 375:18, 375:22, 390:20 columns [1] - 389:8 combined [2] - 472:21, 476:5 coming [15] - 341:25, 356:1, 361:3, 365:11, 367:3, 368:7, 390:19, 408:5, 429:20, 445:21, 468:9, 472:5, 472:6, 477:8 comment [11] - 366:19, 367:22, 375:10, 388:23, 399:17, 429:8, 431:5, 433:1, 458:17, 467:20, 468:17 commented [1] - 446:6 comments [7] - 360:22, 367:1, 370:3, 454:5, 454:7, 461:8, 461:16 commercially [1] - 472:7 commitment [1] - 419:1 common [4] - 345:9, 351:20, 379:5, 483:25 commonly [1] - 412:1 communities [14] - 351:21, 352:19, 353:23, 354:18, 362:17, 362:24, 363:2, 387:16, 393:20, 411:25,
---	---	--	---	---

420:2, 441:22, 480:4, 480:6 community [6] - 353:11, 365:13, 386:24, 387:1, 481:19, 481:22 companies [19] - 340:17, 340:19, 357:24, 370:6, 371:2, 385:17, 385:21, 385:23, 416:24, 417:19, 417:25, 419:12, 419:19, 440:5, 443:9, 443:13, 443:15, 483:22, 485:13 COMPANIES [1] - 491:4 companies' [2] - 386:12, 446:9 COMPANIES' [1] - 491:13 company [5] - 384:8, 385:11, 385:18, 406:25, 409:14 Company [2] - 336:7, 337:11 comparable [1] - 463:7 comparative [2] - 391:2, 446:15 compare [2] - 361:17, 389:24 compared [6] - 365:4, 413:23, 416:16, 422:4, 435:20, 479:9 compares [2] - 349:16, 388:16 comparing [2] - 390:23, 434:14 comparison [4] - 375:15, 391:2, 446:9, 469:6 complement [1] - 372:12 complementary [1] - 373:17 completed [1] - 442:10 completely [5] - 339:25, 342:11, 355:3, 411:7, 431:6 complex [1] - 405:25 complexities [1] - 347:5 compliance [5] - 339:10, 442:20, 443:3, 444:4 compliant [1] - 341:14 complicated [4] - 398:19, 428:12, 441:16 complies [1] - 445:4 comply [1] - 341:24 complying [1] - 420:5 component [4] - 373:2, 389:19, 464:12, 475:9 comprehensive [2] - 416:2, 486:19 concede [2] - 429:8, 429:24 conceive [1] - 396:25 conceived [1] - 397:1 concept [12] - 341:6,	344:22, 346:5, 355:22, 394:20, 396:10, 396:16, 403:11, 438:20, 454:12, 466:10, 480:2 concepts [1] - 399:7 concern [14] - 353:5, 354:4, 373:18, 373:24, 374:1, 406:23, 406:24, 415:25, 425:18, 437:6, 438:9, 438:11, 446:14, 446:15 concerned [2] - 429:10, 454:2 concerns [9] - 354:21, 363:21, 373:25, 374:9, 416:15, 429:2, 434:15, 437:18, 475:2 conclude [2] - 395:15, 439:2 conclusion [4] - 356:6, 356:22, 419:15, 470:1 concordant [1] - 487:8 concurrent [1] - 412:22 concurrently [2] - 473:25, 478:25 condition [3] - 346:25, 399:13, 448:20 conditioner [1] - 407:11 conditioners [1] - 407:10 conditioning [1] - 402:2 conditions [5] - 371:4, 398:2, 430:21, 431:1, 445:2 confirm [2] - 433:21, 451:16 confirmation [1] - 472:6 confirmatory [1] - 387:20 confirmed [1] - 391:12 conformance [2] - 339:8, 339:19 confusing [3] - 396:14, 396:15, 420:24 confusion [1] - 417:3 connection [1] - 483:21 consensus [3] - 365:9, 369:12, 434:18 conservation [3] - 370:13, 371:7, 438:22 conserve [2] - 372:3, 372:4 consider [1] - 382:23 considerably [1] - 352:20 consideration [5] - 394:22, 436:2, 438:16, 481:23, 482:12 considerations [2] - 338:24, 340:24 considered [3] - 405:19, 425:25, 438:24 considering [1] - 438:17 consistent [4] -	338:25, 416:17, 442:11, 478:19 consistently [3] - 338:15, 458:8, 464:23 consolidated [1] - 458:8 constrain [2] - 364:5 constrained [3] - 369:1, 369:5, 396:1 constraining [1] - 368:19 constraint [2] - 474:17, 485:5 constraints [4] - 356:12, 359:25, 364:9, 476:5 consultants [1] - 403:9 consultation [1] - 341:20 consume [7] - 361:25, 373:21, 403:25, 458:20, 459:5, 468:24, 484:24 consumed [1] - 465:9 consumer [1] - 408:10 consumers [2] - 370:13, 373:20 Consumers' [1] - 337:13 consuming [4] - 347:17, 373:21, 435:25, 479:15 CONSUMPTION [2] - 349:8, 490:11 consumption [22] - 347:16, 349:24, 352:6, 353:13, 354:1, 357:23, 370:2, 374:10, 381:11, 381:23, 395:10, 408:11, 422:25, 431:19, 440:8, 456:19, 458:19, 459:1, 469:5, 473:22, 473:24, 474:3 contemplated [2] - 364:1, 406:20 context [16] - 340:15, 344:4, 413:6, 416:13, 416:21, 417:15, 418:14, 425:1, 426:12, 448:17, 449:3, 449:5, 461:8, 467:17, 475:17, 486:4 contingency [1] - 397:21 continue [2] - 411:3, 479:11 continuing [1] - 445:12 continuous [1] - 421:11 contrast [2] - 344:25, 446:14 control [3] - 365:4, 365:5, 381:13 conundrum [1] - 452:5 conventional [1] - 417:8 conversation [2] - 380:12, 392:17 convicted [1] - 416:17 Copper [4] - 398:5, 398:8, 472:11, 473:1 COPY [1] - 491:15	core [2] - 415:23, 460:15 corner [1] - 464:11 cornerstone [1] - 372:6 Corporation [1] - 337:12 correct [22] - 339:2, 339:14, 342:4, 347:13, 347:14, 349:19, 351:7, 351:11, 358:7, 376:20, 376:21, 378:19, 392:15, 392:16, 395:13, 400:21, 410:13, 412:21, 423:14, 423:24, 431:21, 443:1 correctly [3] - 365:16, 425:22, 474:14 corresponding [1] - 456:18 cost [63] - 345:3, 351:13, 352:23, 357:11, 357:19, 359:9, 359:10, 359:22, 360:1, 364:6, 368:19, 368:21, 369:2, 369:5, 386:21, 386:23, 386:24, 387:5, 387:22, 394:11, 401:3, 401:8, 404:23, 404:24, 405:2, 405:21, 407:3, 407:25, 415:8, 420:9, 421:2, 421:25, 423:11, 424:5, 424:8, 424:12, 424:18, 424:19, 424:20, 424:22, 425:19, 425:23, 426:6, 426:8, 426:9, 426:11, 428:7, 429:4, 429:18, 431:10, 463:18, 464:12, 466:18, 468:4, 474:4, 478:2, 480:8, 483:15, 483:16, 483:23, 484:7, 484:16 COST [1] - 492:10 cost-based [1] - 405:21 cost-effective [1] - 431:10 cost-of-service [5] - 364:6, 368:21, 369:5, 426:6, 428:7 costing [1] - 483:8 costly [1] - 428:15 costs [56] - 338:22, 340:16, 341:11, 345:16, 356:19, 357:1, 359:12, 359:20, 360:12, 366:12, 366:18, 372:17, 372:18, 382:14, 385:25, 386:3, 386:6, 386:11, 387:9, 387:24, 400:16, 403:12, 405:23, 415:14, 415:24, 424:17, 425:3, 426:2, 426:11, 426:24, 427:9, 428:10, 429:10, 447:25, 448:4, 448:24, 449:4, 449:12, 449:15, 449:17, 449:18,	449:20, 449:24, 450:11, 450:16, 450:25, 454:20, 460:8, 460:21, 475:19, 475:23, 478:25, 480:6, 480:19, 483:14, 484:10 Council [20] - 340:11, 358:17, 359:6, 366:5, 366:14, 367:3, 374:14, 407:15, 419:9, 419:11, 420:7, 445:4, 445:7, 474:16, 475:11, 476:5, 480:10, 480:25, 481:14, 482:21 Council's [2] - 358:16, 449:2 Councils [1] - 366:6 counsel [4] - 369:9, 413:2, 418:20, 439:6 Counsel [1] - 337:8 couple [9] - 338:7, 342:13, 366:6, 380:12, 388:10, 406:16, 411:16, 419:7, 430:7 course [11] - 375:25, 376:2, 377:9, 377:16, 385:18, 392:14, 421:15, 455:3, 471:22, 472:15, 484:5 court [1] - 418:25 Court [1] - 337:15 courtesy [1] - 365:15 covered [3] - 432:9, 449:4, 450:21 create [5] - 351:24, 352:2, 448:10, 487:22, 487:23 created [1] - 462:3 creating [2] - 486:5, 487:21 creation [1] - 437:17 credit [1] - 415:8 credited [2] - 413:24, 414:18 credits [1] - 414:24 criteria [4] - 344:1, 440:5, 466:4, 466:7 CROSS [3] - 338:3, 375:2, 419:5 Cross [8] - 490:5, 490:6, 490:7, 490:22, 491:9, 491:10, 492:4, 492:5 cross [1] - 462:17 Cross-Examination [8] - 490:5, 490:6, 490:7, 490:22, 491:9, 491:10, 492:4, 492:5 CROSS-EXAMINES [3] - 338:3, 375:2, 419:5 Crow [16] - 349:22, 351:8, 351:10, 351:22, 352:5, 352:11, 352:14, 353:10, 362:19, 362:24, 377:10, 387:16, 387:17, 419:14, 421:21, 480:4 CSR(A) [2] - 337:15, 337:16 cumulative [3] - 350:10, 350:11, 350:21 cumulatively [2] -
---	--	--	---	---

423:4, 437:25 curb [1] - 463:22 current [9] - 339:9, 341:14, 363:25, 390:25, 445:2, 448:1, 448:4, 476:15, 483:8 customer [40] - 343:20, 357:6, 369:2, 373:4, 376:19, 377:21, 378:7, 378:12, 378:14, 380:24, 408:21, 408:24, 409:8, 409:15, 409:25, 410:11, 411:23, 413:25, 415:3, 415:4, 432:17, 436:14, 447:20, 450:6, 450:14, 462:7, 462:9, 462:21, 463:4, 463:9, 463:19, 464:16, 464:18, 464:20, 468:4, 475:7, 475:9, 476:13, 477:22, 487:7 customer's [2] - 450:7, 465:18 CUSTOMERS [5] - 491:18, 491:21, 491:23, 491:24, 491:26 customers [147] - 342:15, 343:6, 344:18, 347:12, 347:17, 349:22, 350:12, 350:20, 350:24, 350:25, 351:9, 352:11, 352:14, 353:1, 361:18, 361:25, 370:15, 372:15, 372:16, 375:19, 375:23, 375:25, 376:15, 377:10, 377:12, 377:14, 378:1, 378:13, 378:15, 378:17, 379:5, 379:16, 379:21, 380:1, 380:4, 380:17, 380:19, 380:22, 381:9, 383:3, 383:20, 385:20, 388:23, 389:1, 400:15, 409:15, 409:16, 411:20, 414:20, 414:24, 415:6, 415:10, 415:20, 419:17, 419:18, 422:10, 422:11, 422:19, 432:10, 432:12, 432:15, 433:25, 434:20, 435:23, 435:25, 436:23, 437:7, 438:17, 438:19, 446:11, 450:1, 455:14, 455:16, 455:21, 455:25, 457:3, 457:9, 457:11, 457:15, 457:17, 457:20, 457:23, 458:4, 458:7, 458:8, 458:11, 458:13, 458:15, 458:20, 459:2, 459:3, 459:4, 459:5, 459:16, 459:19, 459:25, 460:2, 460:5, 460:6, 460:17, 461:1, 462:1, 462:6, 462:19, 462:22, 462:23,	463:14, 463:15, 463:21, 464:5, 464:22, 465:7, 465:14, 466:6, 466:15, 467:18, 468:15, 474:4, 474:22, 475:22, 477:18, 479:7, 479:11, 479:15, 481:15, 481:18, 481:19, 481:22, 481:24, 484:14, 484:16, 486:8, 486:10, 486:23, 487:2, 487:5, 487:8 customers' [1] - 349:17 cut [1] - 380:7 cutoff [7] - 361:4, 361:5, 379:2, 466:14, 467:1, 486:9, 486:16 CW [1] - 338:12 CW-14 [2] - 392:10, 392:24 CW-16(h) [1] - 408:19 CW-19 [3] - 447:14, 448:21, 455:4 CW-19(a) [1] - 444:17 CW-25 [1] - 344:13 CW-25(c) [1] - 399:25 CW-29(B) [1] - 491:17 CW-YEC/YECL-19 [1] - 338:8 cycle [1] - 431:12 D D-14 [2] - 375:12, 388:12 D.J [1] - 337:16 daily [11] - 343:7, 345:1, 345:6, 345:9, 400:3, 401:15, 401:17, 402:9, 402:15, 403:2 darn [1] - 405:7 data [9] - 377:7, 378:2, 378:9, 379:22, 379:24, 383:15, 383:22, 423:3 DATA [2] - 491:13, 491:14 date [4] - 367:4, 404:7, 468:12, 471:21 dates [6] - 364:23, 367:6, 374:13, 470:12, 470:15 Dawson [6] - 363:6, 420:12, 450:1, 450:3, 471:4, 472:21 days [6] - 342:15, 343:4, 346:19, 398:22, 404:8, 412:8 DCF [1] - 449:19 deal [28] - 339:22, 343:7, 351:21, 362:23, 365:9, 366:22, 384:18, 385:22, 413:6, 415:16, 416:2, 417:12, 426:13, 428:3, 428:4, 431:8, 436:11, 438:14, 442:7, 443:15, 449:22, 463:13, 464:8, 474:7, 486:8, 488:11 dealing [15] - 343:21, 384:21, 385:19, 448:6, 448:19,	461:20, 461:22, 462:18, 466:14, 467:10, 468:15, 469:19, 476:10, 481:1, 487:20 deal [14] - 344:12, 347:11, 373:2, 381:19, 386:12, 386:24, 387:1, 387:9, 409:22, 416:7, 435:23, 443:9, 462:23, 482:10 debate [3] - 414:12, 428:6, 453:12 debated [2] - 342:9, 464:2 debates [1] - 355:5 debating [1] - 342:21 decade [2] - 367:14, 368:9 decided [2] - 339:24, 344:9 decides [1] - 364:19 decision [7] - 339:23, 350:3, 350:22, 364:17, 443:3, 443:17, 443:21 decisions [5] - 343:24, 364:13, 458:19, 460:25, 484:6 decline [1] - 456:3 decrease [24] - 351:10, 352:6, 358:6, 373:19, 374:15, 390:1, 390:3, 432:24, 436:1, 436:13, 436:15, 436:25, 456:18, 473:21, 474:3, 474:8, 474:23, 475:4, 475:15, 475:16, 476:4, 476:7, 476:9 decreased [2] - 432:22, 476:13 decreases [6] - 352:17, 360:4, 382:2, 456:17, 473:14, 479:1 defer [4] - 364:17, 414:19, 414:24, 415:9 deferral [2] - 417:23, 452:10 deferred [1] - 472:11 deferring [3] - 412:19, 414:23, 470:4 defers [1] - 448:19 define [1] - 348:25 defined [1] - 419:18 definite [2] - 453:18, 461:5 definitely [2] - 418:22, 426:20 definitions [1] - 342:6 degree [4] - 341:3, 344:6, 352:20, 374:8 delay [1] - 366:22 delays [1] - 365:15 deliver [1] - 426:16 demand [1] - 406:24 denominator [1] - 391:2 depreciated [1] - 359:14 depth [1] - 452:22 describe [1] - 445:15 described [1] - 437:20 describing [2] - 375:21, 402:6 design [27] - 339:1,	343:25, 359:21, 364:5, 383:25, 384:2, 397:3, 408:15, 413:5, 430:2, 444:21, 444:23, 445:6, 445:15, 445:18, 446:1, 455:4, 457:5, 458:3, 458:18, 459:1, 460:24, 465:3, 465:15, 473:18, 478:20, 483:5 designed [2] - 361:10, 483:13 designing [1] - 401:9 designs [3] - 338:16, 373:5, 459:2 DESJARLAIS [3] - 490:17, 491:8, 492:2 despite [1] - 397:1 detail [4] - 345:10, 377:5, 379:20, 458:1 detailed [2] - 358:2, 457:25 determinants [2] - 377:3, 457:25 determine [3] - 439:11, 439:22, 441:4 determined [3] - 485:11, 485:21, 485:23 determining [2] - 440:6, 466:4 develop [2] - 451:12, 486:18 DEVELOP [1] - 491:17 developed [2] - 478:17, 486:1 developing [3] - 338:20, 432:21, 475:25 development [7] - 360:11, 361:15, 361:23, 365:1, 369:13, 370:1, 371:1 devices [1] - 407:10 diesel [179] - 338:19, 338:22, 341:11, 342:2, 342:6, 342:16, 342:20, 343:5, 345:19, 345:21, 345:24, 346:2, 346:21, 347:1, 347:24, 348:6, 351:13, 351:19, 351:22, 351:25, 352:19, 353:10, 353:11, 353:23, 354:17, 357:19, 360:3, 360:14, 360:15, 362:18, 362:20, 362:24, 363:1, 363:7, 363:9, 365:13, 365:25, 366:9, 367:12, 370:2, 376:20, 377:9, 377:10, 386:21, 386:25, 387:12, 387:15, 387:16, 387:17, 393:19, 393:21, 393:23, 393:24, 394:6, 394:8, 394:11, 394:13, 394:14, 394:19, 394:20, 394:21, 394:25, 395:3, 395:7, 395:11, 395:12, 395:14, 395:16, 395:18, 396:1, 396:3, 396:6, 396:10,	396:13, 396:18, 397:8, 397:10, 397:18, 397:21, 397:25, 398:6, 398:10, 398:15, 399:2, 399:9, 399:10, 399:11, 399:20, 399:21, 403:3, 403:4, 403:17, 403:21, 403:22, 404:1, 406:23, 407:6, 412:9, 412:12, 413:10, 413:18, 413:20, 413:22, 413:24, 414:8, 415:2, 415:3, 417:2, 419:14, 420:2, 420:9, 420:10, 420:11, 420:15, 420:16, 420:19, 420:24, 420:25, 421:1, 421:16, 421:21, 421:23, 421:24, 422:1, 422:8, 425:15, 427:3, 427:4, 427:6, 427:19, 427:22, 428:17, 429:21, 430:6, 430:10, 430:14, 431:6, 431:11, 441:8, 443:8, 445:10, 445:13, 446:22, 447:21, 448:24, 449:5, 449:7, 449:13, 449:16, 449:17, 449:19, 450:2, 450:3, 450:15, 450:17, 450:21, 450:23, 451:2, 453:5, 454:24, 455:9, 456:6, 456:19, 464:7, 466:18, 471:15, 471:19, 472:21, 473:3, 480:4, 480:21, 484:15, 485:1 diesel's [2] - 395:15, 395:17 diesel/small [1] - 362:20 diesels [2] - 348:11, 473:7 differ [2] - 347:18, 392:6 difference [15] - 350:4, 374:11, 378:13, 388:12, 390:2, 391:4, 393:10, 396:9, 401:13, 403:1, 406:22, 434:9, 435:18, 454:21, 486:20 differences [2] - 446:3, 446:12 different [58] - 340:2, 344:24, 345:16, 345:19, 348:15, 351:6, 356:7, 357:1, 357:6, 367:22, 372:24, 377:8, 378:15, 381:5, 384:19, 384:20, 388:7, 390:7, 390:8, 390:10, 390:13, 390:15, 393:25, 394:1, 394:10, 395:4, 395:8, 401:4, 402:3, 402:7, 402:21, 410:1, 413:14, 414:16, 420:25, 421:1, 421:3, 423:11, 424:12, 424:21, 424:25, 426:1, 427:17,
---	---	---	--	--

<p>432:14, 432:18, 435:17, 437:18, 446:9, 462:21, 462:23, 464:2, 471:8, 471:10, 472:3, 477:16, 484:9, 488:1 <u>differently</u> [1] - 488:2 <u>difficulties</u> [2] - 409:24, 411:21 <u>difficulty</u> [3] - 343:18, 461:22, 488:4 <u>dig</u> [1] - 457:14 <u>dimension</u> [1] - 364:15 <u>directing</u> [1] - 443:12 <u>direction</u> [11] - 340:12, 340:23, 340:25, 341:1, 341:23, 358:17, 358:18, 364:14, 416:10, 459:24, 466:16 <u>directions</u> [1] - 480:25 <u>directive</u> [1] - 340:5 <u>directives</u> [1] - 445:5 <u>directly</u> [1] - 414:24 <u>disagree</u> [1] - 340:21 <u>disappearing</u> [1] - 371:16 <u>discomforted</u> [1] - 429:19 <u>discordant</u> [1] - 487:9 <u>discourage</u> [1] - 374:2 <u>discrepancy</u> [3] - 376:17, 376:18, 376:22 <u>discretion</u> [1] - 481:5 <u>discretionary</u> [1] - 486:14 <u>discrimination</u> [4] - 479:17, 479:20, 480:23, 480:24 <u>discuss</u> [4] - 357:7, 416:20, 417:15, 422:19 DISCUSSED [1] - 491:3 <u>discussed</u> [6] - 356:11, 418:5, 438:13, 446:4, 452:8, 452:22 <u>discussing</u> [8] - 369:9, 369:16, 369:19, 369:20, 378:25, 408:2, 437:12, 469:11 <u>discussion</u> [17] - 350:15, 355:6, 356:2, 360:19, 370:20, 379:10, 389:11, 406:22, 417:23, 429:9, 435:22, 435:23, 437:6, 447:3, 454:3, 471:13, 482:12 DISCUSSION [2] - 374:24, 491:18 <u>discussions</u> [13] - 369:14, 384:11, 406:16, 407:22, 426:15, 433:3, 433:12, 434:14, 465:22, 469:25, 470:23, 471:9, 482:4 <u>dismiss</u> [1] - 488:19 <u>dismissed</u> [2] - 489:5, 489:6</p>	<p><u>dispatch</u> [1] - 394:5 <u>disputes</u> [1] - 417:19 <u>distant</u> [1] - 357:18 <u>distinct</u> [3] - 383:11, 433:18, 487:9 <u>distinguish</u> [1] - 350:1 <u>distract</u> [1] - 482:14 <u>distracted</u> [1] - 399:4 <u>distribution</u> [2] - 432:10, 460:7 <u>distributor</u> [1] - 433:16 <u>divide</u> [1] - 377:23 <u>divided</u> [1] - 376:2 DOCUMENT [2] - 490:24, 490:26 <u>document</u> [2] - 375:10, 453:13 <u>documents</u> [1] - 363:1 <u>dollar</u> [7] - 389:7, 389:8, 389:21, 390:12, 391:12, 391:18 <u>dollars</u> [1] - 475:15 <u>domestic</u> [2] - 472:15, 472:17 <u>done</u> [20] - 343:12, 369:2, 378:24, 384:5, 404:24, 405:3, 410:20, 416:22, 417:4, 433:8, 435:3, 441:5, 442:14, 443:21, 443:22, 444:9, 456:12, 461:25, 478:11, 485:6 <u>door</u> [1] - 417:10 <u>Dormer</u> [1] - 337:15 <u>double</u> [1] - 339:14 DOWN [1] - 489:8 <u>down</u> [31] - 358:20, 359:13, 360:9, 361:3, 363:6, 363:8, 364:14, 370:8, 370:10, 378:18, 380:8, 415:22, 418:6, 428:3, 432:5, 436:4, 438:25, 440:11, 440:13, 441:11, 442:10, 445:22, 458:2, 460:6, 461:14, 466:25, 476:20, 484:15, 485:7, 487:1, 488:10 <u>dramatic</u> [1] - 360:4 <u>dramatically</u> [1] - 434:11 <u>draught</u> [5] - 397:19, 399:1, 399:19, 450:24, 473:5 <u>draughts</u> [3] - 398:2, 399:14, 399:17 <u>draw</u> [1] - 440:13 <u>drew</u> [1] - 446:10 <u>drive</u> [5] - 340:12, 345:16, 382:9, 450:21, 473:8 <u>driver</u> [2] - 394:11, 427:1 <u>drivers</u> [2] - 407:25, 426:8 <u>drives</u> [5] - 372:20, 425:15, 434:13, 450:2, 468:4 <u>driving</u> [3] - 382:12, 415:21, 427:3 <u>drought</u> [5] - 430:20, 430:21, 431:1, 431:8, 431:9 <u>drove</u> [1] - 434:20</p>	<p>DSM [22] - 369:8, 369:9, 369:13, 369:16, 369:25, 370:1, 370:5, 370:8, 370:9, 370:16, 371:1, 371:9, 371:18, 371:25, 372:9, 372:24, 372:25, 406:16, 407:21, 438:16, 438:22, 491:18 <u>due</u> [5] - 361:22, 449:15, 467:22, 468:8, 477:9 DUNCAN [3] - 490:17, 491:7, 492:2 <u>duplicated</u> [1] - 387:14 <u>during</u> [21] - 345:15, 399:14, 404:21, 405:6, 407:6, 411:10, 423:13, 424:8, 427:24, 428:15, 428:19, 446:7, 448:9, 453:5, 456:6, 456:19, 456:20, 465:21, 470:16, 470:17, 471:19 <u>dwellings</u> [1] - 381:21</p>	<p>414:17, 425:2, 425:15, 435:1, 441:25, 442:5, 442:7, 484:9 <u>effects</u> [2] - 460:19, 470:5 EFFECTS [1] - 492:10 <u>efficiencies</u> [8] - 381:13, 421:1, 421:13, 421:14, 421:17, 421:18, 421:24, 421:25 <u>efficiency</u> [18] - 340:15, 343:22, 356:19, 363:14, 363:19, 372:19, 372:22, 386:25, 409:9, 421:3, 421:13, 445:8, 463:15, 463:17, 476:17, 476:24, 484:3, 484:4 <u>efficient</u> [6] - 373:11, 415:25, 432:6, 465:4, 473:19, 474:2 <u>effort</u> [4] - 346:22, 426:21, 430:2, 447:25 <u>efforts</u> [1] - 448:4 <u>either</u> [15] - 342:7, 342:9, 347:1, 382:6, 387:21, 389:2, 397:5, 398:24, 399:5, 403:13, 403:20, 404:1, 428:17, 452:10, 465:17 <u>either/or</u> [1] - 372:11 <u>elaborate</u> [2] - 402:9, 479:22 <u>elasticities</u> [3] - 380:11, 381:1, 467:21 <u>elasticity</u> [5] - 408:12, 422:25, 423:6, 467:15, 468:5 ELECTRIC [1] - 491:24 <u>electric</u> [8] - 385:1, 409:25, 410:2, 410:4, 422:14, 432:14, 459:1 <u>electrical</u> [8] - 370:15, 388:5, 388:6, 389:4, 389:20, 422:20, 458:18, 460:25 <u>Electrical</u> [4] - 336:7, 337:11, 380:5, 442:1 <u>Electrical's</u> [1] - 379:22 <u>electricity</u> [4] - 370:22, 409:17, 464:9, 464:11 <u>electronic</u> [1] - 375:11 <u>element</u> [2] - 353:25, 407:16 <u>elsewhere</u> [2] - 342:24, 483:24 <u>emerge</u> [1] - 397:2 <u>emerged</u> [2] - 357:9, 452:4 <u>emerging</u> [1] - 370:17 <u>en</u> [1] - 453:1 <u>enamoured</u> [1] - 355:4 <u>encourage</u> [1] - 374:4 <u>end</u> [14] - 352:7, 362:11, 373:6, 381:23, 410:16, 429:2, 433:6, 437:21,</p>	<p>438:13, 459:22, 466:25, 468:10, 470:16 <u>energized</u> [1] - 471:2 Energy [16] - 336:8, 337:12, 365:21, 371:15, 411:19, 412:12, 423:10, 426:14, 455:5, 461:22, 462:24, 470:9, 473:12, 473:17, 474:7, 474:24 <u>energy</u> [32] - 363:8, 371:19, 372:4, 395:10, 407:4, 407:23, 407:25, 409:8, 415:16, 420:25, 423:10, 424:6, 424:8, 424:10, 424:13, 424:21, 424:22, 425:17, 425:18, 425:24, 426:3, 426:14, 426:22, 427:21, 448:22, 458:19, 459:1, 460:3, 460:4, 460:25, 462:9 <u>Energy's</u> [7] - 365:2, 379:21, 393:9, 413:2, 415:13, 432:20, 441:23 <u>Energy's</u> [1] - 455:19 <u>engaging</u> [1] - 472:13 <u>engine</u> [1] - 394:6 <u>engineers</u> [1] - 470:23 <u>engines</u> [2] - 395:16, 396:7 <u>ensure</u> [7] - 415:5, 425:6, 426:16, 448:24, 449:12, 449:23, 450:10 <u>ensures</u> [4] - 449:4, 449:14, 449:16, 449:20 <u>ensuring</u> [2] - 372:17, 382:14 <u>entire</u> [4] - 376:19, 378:17, 432:18, 458:3 <u>entirely</u> [4] - 348:14, 393:25, 394:10 <u>environment</u> [1] - 407:4 <u>environmental</u> [1] - 483:8 <u>equal</u> [1] - 373:14 <u>equalizing</u> [1] - 481:23 <u>equates</u> [1] - 475:14 <u>equation</u> [1] - 362:19 <u>equity</u> [1] - 415:22 <u>equivalent</u> [1] - 391:9 <u>era</u> [1] - 448:18 ERA [21] - 414:1, 414:18, 414:19, 414:23, 415:5, 417:20, 418:2, 448:22, 448:23, 449:2, 449:22, 451:9, 451:20, 451:22, 452:1, 452:4, 452:7, 452:8, 452:9, 452:11, 490:15 <u>ERA's</u> [1] - 414:22 <u>Esq</u> [6] - 337:9, 337:10, 337:13, 337:14</p>
---	---	---	--	---

<p>essence [3] - 370:20, 404:4, 487:3</p> <p>essential [3] - 447:3, 453:15, 462:6</p> <p>essentially [12] - 350:2, 350:18, 350:19, 361:13, 388:13, 388:17, 389:23, 412:17, 412:19, 424:12, 453:7, 476:16</p> <p>established [1] - 356:8</p> <p>establishes [1] - 466:12</p> <p>estimate [1] - 363:17</p> <p>estimated [1] - 387:7</p> <p>et [5] - 366:16, 447:2, 471:25, 481:2, 485:18</p> <p>Etlan [1] - 427:20</p> <p>event [5] - 397:4, 400:2, 401:9, 437:10, 448:16</p> <p>events [2] - 350:10, 350:11</p> <p>eventually [2] - 354:25, 355:15</p> <p>everywhere [1] - 419:23</p> <p>evidence [15] - 351:1, 364:16, 386:7, 386:9, 386:19, 397:11, 398:14, 401:22, 408:9, 408:13, 435:15, 436:22, 471:5, 475:7, 475:20</p> <p>evolve [4] - 346:16, 360:8, 361:12, 415:19</p> <p>evolved [1] - 371:5</p> <p>evolving [1] - 448:20</p> <p>exact [1] - 341:9</p> <p>exactly [3] - 386:12, 413:25, 430:4</p> <p>Examination [10] - 490:5, 490:6, 490:7, 490:18, 490:22, 491:9, 491:10, 492:3, 492:4, 492:5</p> <p>examine [1] - 427:18</p> <p>EXAMINES [3] - 338:3, 375:2, 419:5</p> <p>example [2] - 347:17, 354:23, 377:25, 380:19, 381:15, 383:2, 383:12, 393:19, 403:4, 407:8, 407:9, 407:20, 408:20, 408:22, 409:16, 422:18, 425:12, 442:6, 450:22, 451:3, 451:7, 467:2</p> <p>EXAMPLE [2] - 451:20, 490:14</p> <p>exceed [2] - 378:17, 471:3</p> <p>exceeded [1] - 379:18</p> <p>exceeds [1] - 378:16</p> <p>except [1] - 419:25</p> <p>exception [2] - 419:19, 462:16</p> <p>excess [2] - 378:3, 405:22</p> <p>exchanges [1] - 404:2</p> <p>exciting [1] - 358:13</p> <p>Executive [1] - 337:9</p> <p>exercise [1] - 428:20</p>	<p>exercised [1] - 407:16</p> <p>Exhibit [4] - 349:14, 388:12, 431:16, 432:8</p> <p>EXHIBIT [3] - 490:24, 490:26, 492:10</p> <p>exhibit [1] - 375:12</p> <p>EXHIBITS [1] - 490:23</p> <p>exist [6] - 345:3, 345:8, 352:21, 396:25, 400:14, 456:15</p> <p>existence [1] - 452:11</p> <p>existing [6] - 339:23, 339:24, 349:17, 363:25, 387:25, 414:21</p> <p>exists [2] - 346:25, 365:11</p> <p>expand [1] - 386:6</p> <p>expect [4] - 441:11, 467:7, 467:13, 467:24</p> <p>expectation [1] - 456:17</p> <p>expected [5] - 440:13, 456:6, 456:9, 457:4, 471:2</p> <p>expenditures [1] - 370:9</p> <p>expense [1] - 344:6</p> <p>expensive [4] - 404:22, 415:21, 416:20, 421:10</p> <p>experience [3] - 341:4, 378:16, 466:23</p> <p>experienced [1] - 378:1</p> <p>expire [4] - 364:4, 366:8, 366:10, 367:7</p> <p>expiry [3] - 364:23, 367:4, 367:6</p> <p>explain [4] - 432:23, 458:25, 474:2, 479:17</p> <p>explained [1] - 359:7</p> <p>explains [1] - 376:8</p> <p>EXPLANATION [1] - 491:2</p> <p>exposed [3] - 363:4, 384:17, 384:25</p> <p>expound [1] - 339:15</p> <p>extended [1] - 364:24</p> <p>extent [8] - 346:8, 413:1, 413:20, 433:4, 467:14, 469:5, 477:25, 479:5</p> <p>extra [5] - 379:20, 403:12, 409:25, 450:3, 460:7</p> <p>extrapolated [1] - 383:19</p> <p>extreme [1] - 385:6</p> <p>extremely [1] - 352:10</p> <p>extremes [1] - 399:7</p>	<p>fact [16] - 342:10, 350:23, 353:19, 382:16, 385:5, 394:2, 394:17, 424:3, 425:4, 427:8, 447:10, 448:7, 460:16, 468:9, 476:6, 486:3</p> <p>factor [8] - 359:5, 380:25, 425:19, 430:12, 448:6, 450:20, 451:5, 460:1</p> <p>FACTOR [1] - 491:26</p> <p>factors [7] - 364:4, 381:3, 381:4, 402:5, 422:6, 486:9</p> <p>facts [1] - 364:15</p> <p>factually [1] - 362:24</p> <p>fair [5] - 404:17, 415:11, 429:6, 429:7, 461:9</p> <p>fairer [1] - 357:24</p> <p>fairly [3] - 435:4, 436:10, 440:21</p> <p>fairness [2] - 412:18, 446:22</p> <p>fall [3] - 343:17, 459:20, 470:24</p> <p>fallen [1] - 383:17</p> <p>family [1] - 381:21</p> <p>fancy [1] - 403:8</p> <p>far [2] - 344:5, 355:16, 384:7, 398:25, 399:3, 419:3, 444:20, 448:5, 458:13, 461:23, 468:8, 468:13</p> <p>Faro [6] - 370:7, 396:4, 398:24, 414:6, 425:12, 485:1</p> <p>faster [1] - 471:11</p> <p>features [1] - 436:21</p> <p>felt [1] - 468:20</p> <p>few [7] - 352:11, 352:13, 370:3, 371:14, 399:6, 399:24, 408:5, 432:7, 433:24, 433:25, 443:1, 462:18, 465:8, 465:16, 477:16, 481:6, 481:7</p> <p>figure [5] - 379:17, 428:9, 441:10, 457:22, 468:7</p> <p>figured [2] - 463:21, 463:23</p> <p>figuring [3] - 409:24, 415:16, 426:15</p> <p>file [1] - 473:13</p> <p>files [1] - 472:13</p> <p>filing [5] - 367:9, 386:1, 442:20, 444:4, 464:1</p> <p>filings [1] - 443:4</p> <p>fill [1] - 433:3</p> <p>final [1] - 487:5</p> <p>finally [1] - 418:7</p> <p>financial [2] - 411:20, 450:5</p> <p>fine [8] - 346:2, 346:5, 377:4, 406:14, 420:20, 439:15, 470:5</p> <p>firm [3] - 472:17, 472:21, 483:6</p> <p>first [44] - 338:4, 339:22, 342:13, 343:10, 351:17, 352:6, 354:13, 357:12, 357:15, 358:6, 359:18, 359:22, 360:4,</p>	<p>360:18, 361:11, 364:10, 366:1, 375:15, 375:18, 375:20, 376:13, 376:18, 383:23, 413:13, 419:9, 436:13, 438:7, 438:21, 439:10, 459:4, 463:19, 471:12, 474:3, 475:10, 476:13, 476:19, 477:8, 479:2, 479:24, 480:3, 480:7, 480:13, 483:1, 486:25</p> <p>First [1] - 412:1</p> <p>fit [3] - 343:20, 346:14, 364:12</p> <p>fits [2] - 367:19, 441:1</p> <p>FIVE [2] - 441:1, 490:13</p> <p>five [4] - 354:8, 368:9, 440:19, 441:3</p> <p>fix [2] - 374:22, 481:17</p> <p>fixated [1] - 485:4</p> <p>fixed [2] - 436:10, 467:11</p> <p>flagged [2] - 381:20, 461:22</p> <p>flat [7] - 345:17, 389:10, 389:13, 391:12, 446:25, 476:12</p> <p>flexibility [2] - 404:3, 404:18</p> <p>flood [1] - 399:1</p> <p>flow [2] - 415:10, 415:20</p> <p>flow-throughs [1] - 415:20</p> <p>flows [8] - 399:12, 399:16, 399:21, 424:1, 456:16, 473:5, 473:6, 473:8</p> <p>fluctuates [1] - 432:17</p> <p>fluctuation [3] - 347:2, 443:8, 443:17</p> <p>focus [8] - 373:16, 407:21, 426:21, 427:8, 433:4, 457:18, 473:20, 487:15</p> <p>focused [3] - 355:17, 407:23, 448:12</p> <p>focusing [3] - 418:15, 460:13, 468:2</p> <p>focussed [5] - 353:16, 407:19, 415:12, 466:10, 466:23</p> <p>focussing [1] - 479:14</p> <p>follow [7] - 383:18, 384:12, 393:16, 412:15, 419:7, 421:22, 482:6</p> <p>follow-up [2] - 421:22, 482:6</p> <p>followed [1] - 435:11</p> <p>following [2] - 395:12, 465:1</p> <p>FOR [4] - 491:14, 491:18, 491:26, 492:8</p> <p>force [2] - 395:11, 397:10</p> <p>forced [1] - 398:3</p> <p>forecast [24] - 377:6, 386:23, 388:1, 397:8, 398:7, 413:14, 413:20, 413:23,</p>	<p>416:19, 440:7, 449:16, 454:25, 456:5, 456:16, 467:8, 467:11, 467:12, 469:8, 469:9, 470:12, 471:6, 471:7, 472:25</p> <p>forecasting [1] - 387:2</p> <p>forecasts [6] - 342:10, 377:3, 412:9, 413:17, 470:8, 470:11</p> <p>forget [3] - 414:14, 437:12, 475:14</p> <p>forgive [1] - 380:9</p> <p>forgot [1] - 411:7</p> <p>forgotten [1] - 431:16</p> <p>form [4] - 363:19, 405:21, 477:21, 479:16</p> <p>forth [2] - 381:14, 406:20</p> <p>forward [19] - 355:15, 355:20, 367:17, 368:3, 368:5, 368:8, 370:5, 371:23, 383:16, 427:2, 444:2, 444:9, 448:18, 463:1, 467:13, 474:8, 474:12, 477:3, 485:25</p> <p>fossil [4] - 384:16, 384:24, 385:13, 385:14</p> <p>four [3] - 350:6, 350:7</p> <p>framework [3] - 385:20, 415:24, 449:4</p> <p>frankly [6] - 355:20, 371:6, 379:9, 385:7, 438:13, 462:19</p> <p>frenetic [1] - 343:25</p> <p>fridge [1] - 373:11</p> <p>friend [4] - 359:1, 359:3, 376:8, 388:4</p> <p>FROM [1] - 491:14</p> <p>front [5] - 362:15, 365:5, 366:3, 386:10, 458:22</p> <p>fruitful [2] - 424:25, 426:5</p> <p>fuel [6] - 384:15, 385:3, 385:14, 386:24, 387:3, 387:12, 405:14, 421:12, 422:4, 441:17, 441:18, 441:22, 441:23, 442:2, 442:12, 442:14</p> <p>fuels [3] - 384:16, 384:24, 385:13</p> <p>full [5] - 353:12, 357:19, 389:17, 470:4, 480:19</p> <p>fully [1] - 434:22</p> <p>function [4] - 345:25, 352:21, 423:25, 436:4</p> <p>fund [1] - 397:21</p> <p>fundamental [2] - 365:21, 463:16</p> <p>fundamentally [3] - 366:14, 405:5, 425:6</p> <p>funded [1] - 480:11</p> <p>future [18] - 357:18, 361:15, 361:22, 362:3, 388:24, 407:25, 425:4, 429:20, 455:11, 462:25, 469:8, 469:13, 477:5, 477:6, 477:12, 478:21,</p>
--	---	---	---	--

487:20	482:9, 482:14, 482:15	hearing [23] - 356:3, 368:6, 370:7, 371:13, 394:14, 397:13, 397:14, 397:25, 398:4, 401:25, 403:8, 409:23, 412:19, 412:23, 456:12, 456:25, 470:16, 441:19, 442:2, 474:24, 475:24, 476:11, 487:14 Hearing [1] - 337:1 hearings [2] - 358:12, 416:20 hears [1] - 457:11 heat [11] - 384:16, 384:20, 385:1, 386:25, 409:25, 410:2, 410:4, 410:7, 422:14, 422:15 heaters [1] - 410:6 heating [5] - 381:15, 384:24, 409:17, 422:10, 432:14 heck [1] - 463:20 held [1] - 337:1 help [13] - 343:23, 371:23, 372:5, 384:6, 385:11, 407:18, 412:4, 412:13, 422:6, 442:22, 450:11, 458:23 helped [1] - 443:1 helpful [2] - 347:8, 348:5 helping [2] - 359:17, 447:11 helps [3] - 372:21, 398:24, 417:14 heritage [5] - 357:12, 359:8, 359:13, 359:22, 371:16 high [8] - 384:17, 386:14, 425:13, 425:21, 431:2, 433:1, 466:18, 468:22 high-cost [1] - 466:18 high-level [1] - 433:1 higher [26] - 338:19, 354:12, 356:23, 372:3, 373:7, 373:8, 374:2, 379:14, 381:11, 381:23, 401:20, 403:5, 413:19, 418:6, 428:5, 435:7, 438:21, 449:15, 454:23, 460:10, 460:11, 462:13, 463:5, 469:22, 479:14 highest [3] - 351:14, 357:17, 468:20 historic [6] - 424:18, 424:22, 425:5, 426:11, 426:24, 427:5 historical [4] - 357:11, 417:1, 417:16, 444:13 historically [2] - 363:9, 467:1 history [6] - 340:11, 385:14, 428:16, 431:13, 443:6, 453:15 hit [1] - 395:22 hmm [3] - 377:1, 433:11 homeowner [1] - 382:4 homes [1] - 422:11	government's [1] - 370:21 GRA [23] - 342:10, 355:8, 355:21, 397:18, 397:24, 413:14, 415:23, 417:4, 422:5, 441:8, 441:19, 442:2, 442:13, 442:20, 454:9, 456:6, 456:16, 461:23, 467:24, 467:25, 473:17, 474:7, 488:9 gradual [1] - 357:20 graph [1] - 361:25 grapple [1] - 477:13 GRAs [3] - 415:21, 441:20, 442:9 great [2] - 442:22, 452:22 greater [6] - 347:17, 377:17, 460:4, 460:12, 474:11, 479:15 greatly [1] - 347:18 grew [1] - 413:21 grid [7] - 398:16, 402:20, 402:22, 422:10, 455:10, 472:1, 473:3 grids [2] - 346:17, 471:23 grounds [1] - 419:16 Group [1] - 337:13 group [1] - 488:1 GROUPS [1] - 491:18 grows [2] - 428:25, 450:2 growth [6] - 360:10, 361:3, 361:15, 361:23, 430:7, 472:15 GS [1] - 355:24 guarantee [2] - 449:8, 453:25 guaranteed [1] - 395:7 guess [13] - 353:18, 369:11, 376:1, 376:8, 380:16, 387:11, 391:17, 395:3, 408:9, 443:18, 452:3, 452:8, 454:20 guide [1] - 367:2 guiding [1] - 443:14 guys [1] - 464:6	honestly [1] - 458:3 hooked [1] - 472:6 hospital [1] - 463:6 hour [12] - 352:7, 389:11, 404:22, 408:20, 408:24, 436:14, 460:6, 460:8, 460:11, 460:18, 467:1, 467:3 hours [61] - 347:18, 351:17, 352:1, 352:2, 352:12, 352:14, 353:3, 354:11, 356:20, 356:21, 362:1, 362:5, 373:13, 373:21, 377:13, 377:17, 380:13, 388:18, 389:12, 389:17, 390:1, 390:22, 391:6, 391:13, 397:17, 408:18, 409:1, 425:7, 425:8, 426:16, 426:18, 431:3, 431:19, 432:15, 432:16, 435:25, 436:18, 436:24, 455:15, 455:17, 455:22, 456:1, 457:21, 458:21, 459:5, 459:16, 460:5, 460:10, 461:3, 462:10, 462:11, 462:12, 465:9, 465:16, 477:20, 477:23, 479:15, 480:13, 485:10, 485:14 house [11] - 377:21, 377:22, 378:8, 378:23, 400:10, 408:17, 410:7, 410:8, 422:15, 464:19 houses [2] - 400:15, 464:20 HOW [2] - 451:20, 490:15 huge [1] - 359:14 human [1] - 478:3 humans [1] - 478:10 hundred [2] - 362:5, 462:19 hurdles [1] - 345:10 hurt [1] - 458:5 hydration [1] - 439:14 hydro [40] - 342:3, 342:7, 345:10, 346:4, 346:7, 347:24, 348:1, 348:5, 351:18, 359:19, 367:15, 371:16, 376:19, 377:9, 385:9, 394:2, 395:24, 397:16, 398:21, 399:4, 401:3, 403:17, 404:15, 405:5, 405:11, 413:22, 419:13, 420:3, 423:13, 423:19, 425:11, 427:11, 431:7, 445:12, 450:22, 453:24, 470:7, 471:4, 474:11 Hydro [2] - 403:9, 409:23 hydro-based [3] - 345:10, 346:4, 401:3 hypothetical [1] - 451:12	hypothetically [1] - 396:24
G	H	I			
gaining [1] - 401:6 game [4] - 341:23, 402:20, 403:20, 470:1 gap [1] - 357:10 gas [2] - 384:22, 404:22 gee [1] - 394:24 General [2] - 455:15, 473:12 general [36] - 347:22, 356:21, 357:5, 358:21, 377:4, 377:6, 381:20, 392:18, 402:12, 455:24, 458:14, 458:20, 459:3, 459:4, 460:21, 461:17, 461:19, 461:20, 461:23, 462:3, 462:5, 462:16, 463:4, 463:13, 463:20, 463:24, 464:18, 464:21, 480:13, 487:4, 487:6, 487:19, 488:7, 488:12 generally [5] - 361:1, 383:13, 385:15, 401:22, 484:1 generating [1] - 423:19 generation [19] - 338:22, 342:16, 351:14, 359:15, 360:3, 360:11, 385:25, 386:3, 386:6, 386:21, 401:19, 403:4, 403:10, 413:18, 445:10, 453:6, 455:9, 470:10, 472:21 gigawatt [2] - 397:17, 431:3 given [24] - 347:6, 353:14, 355:5, 358:8, 373:4, 388:1, 398:7, 398:13, 411:13, 419:20, 419:23, 425:2, 425:3, 448:3, 453:14, 475:14, 475:15, 476:19, 480:24, 481:23 GIVEN [4] - 490:9, 491:1, 491:12, 492:7 Gladstone [1] - 427:19 goal [2] - 360:2, 362:12 goals [2] - 356:11, 367:20 governed [1] - 368:22 government [33] - 349:16, 351:9, 364:19, 364:20, 366:15, 366:17, 370:23, 371:2, 375:16, 379:1, 379:2, 379:3, 385:22, 419:17, 453:23, 462:20, 463:17, 475:22, 476:2, 477:13, 479:11, 480:12, 480:14, 481:15, 481:18, 481:19, 481:21, 481:23, 481:24,	habits [1] - 408:11 half [1] - 367:12 Hancock [1] - 337:6 hand [2] - 347:11, 354:14 hands [1] - 443:13 hangover [3] - 404:23, 405:2, 405:10 hank [1] - 448:21 hard [3] - 423:2, 426:18, 428:21 Harmata [1] - 337:16 hat [1] - 365:22 head [2] - 386:8, 432:2 hear [1] - 338:4 heard [8] - 339:8, 339:17, 369:9, 369:14, 369:15, 369:22, 407:22, 408:1	hearing [23] - 356:3, 368:6, 370:7, 371:13, 394:14, 397:13, 397:14, 397:25, 398:4, 401:25, 403:8, 409:23, 412:19, 412:23, 456:12, 456:25, 470:16, 441:19, 442:2, 474:24, 475:24, 476:11, 487:14 Hearing [1] - 337:1 hearings [2] - 358:12, 416:20 hears [1] - 457:11 heat [11] - 384:16, 384:20, 385:1, 386:25, 409:25, 410:2, 410:4, 410:7, 422:14, 422:15 heaters [1] - 410:6 heating [5] - 381:15, 384:24, 409:17, 422:10, 432:14 heck [1] - 463:20 held [1] - 337:1 help [13] - 343:23, 371:23, 372:5, 384:6, 385:11, 407:18, 412:4, 412:13, 422:6, 442:22, 450:11, 458:23 helped [1] - 443:1 helpful [2] - 347:8, 348:5 helping [2] - 359:17, 447:11 helps [3] - 372:21, 398:24, 417:14 heritage [5] - 357:12, 359:8, 359:13, 359:22, 371:16 high [8] - 384:17, 386:14, 425:13, 425:21, 431:2, 433:1, 466:18, 468:22 high-cost [1] - 466:18 high-level [1] - 433:1 higher [26] - 338:19, 354:12, 356:23, 372:3, 373:7, 373:8, 374:2, 379:14, 381:11, 381:23, 401:20, 403:5, 413:19, 418:6, 428:5, 435:7, 438:21, 449:15, 454:23, 460:10, 460:11, 462:13, 463:5, 469:22, 479:14 highest [3] - 351:14, 357:17, 468:20 historic [6] - 424:18, 424:22, 425:5, 426:11, 426:24, 427:5 historical [4] - 357:11, 417:1, 417:16, 444:13 historically [2] - 363:9, 467:1 history [6] - 340:11, 385:14, 428:16, 431:13, 443:6, 453:15 hit [1] - 395:22 hmm [3] - 377:1, 433:11 homeowner [1] - 382:4 homes [1] - 422:11	hypothetically [1] - 396:24 I i.e [2] - 381:12, 388:6 idea [7] - 365:3, 367:15, 404:6, 422:9, 428:23, 430:4, 452:3 identified [1] - 457:6 identify [2] - 383:3, 385:11 IER [20] - 349:10, 349:18, 349:24, 350:2, 350:5, 350:22, 374:17, 388:14, 388:19, 436:25, 437:2, 437:4, 437:7, 437:10, 437:16, 468:9, 468:19, 477:7, 477:11, 479:12 IER" [1] - 375:16 IERs [1] - 374:14 IF [2] - 491:20, 491:21 ignore [3] - 380:21, 385:4, 399:7 ignoring [2] - 341:1, 447:5 II [3] - 336:8, 412:22, 447:18 illustration [1] - 392:2 illustrative [1] - 351:5 immediate [1] - 369:21 immediately [2] - 380:22, 450:18 impact [21] - 350:23, 350:24, 388:5, 388:25, 389:7, 427:22, 434:20, 435:23, 437:4, 437:7, 437:10, 455:13, 458:18, 459:2, 461:10, 464:20, 467:7, 468:22, 468:23, 469:7, 469:24 impacted [2] - 350:22, 457:4 IMPACTS [1] - 492:8 impacts [10] - 384:6, 388:7, 388:9, 434:17, 456:2, 456:3, 459:1, 461:6, 468:20, 479:10 implement [1] - 340:25 implementation [1] - 405:18 implemented [3] - 410:3, 467:3, 480:20 implementing [2] - 405:24, 408:10 implications [1] - 350:5 important [8] - 365:21, 372:19, 372:20, 372:21, 426:7, 434:12, 468:3, 483:5 imports [1] - 401:19 impose [1] - 448:11 imposed [1] - 409:7 improved [1] - 421:25 improves [1] - 357:23 IN [5] - 336:3, 491:15, 491:16,		

<p>491:20, 491:22 incentive [1] - 372:4 inch [1] - 355:18 inclining [1] - 462:8 included [3] - 381:2, 407:17, 456:5 including [2] - 397:19, 409:3 income [3] - 381:11, 383:9, 450:4 inconsistent [1] - 339:17 incorporate [1] - 478:18 incorporated [5] - 442:14, 461:16, 461:17, 468:1, 473:16 increase [18] - 349:23, 350:8, 350:9, 350:13, 358:5, 361:22, 366:18, 370:16, 374:16, 388:18, 432:25, 436:25, 437:2, 437:4, 456:18, 469:18, 473:23 increased [4] - 409:5, 432:23, 456:17, 478:22 increases [6] - 361:14, 382:3, 388:24, 438:4, 457:20, 461:2 increasing [2] - 391:5, 460:21 incremental [33] - 338:18, 340:15, 341:11, 351:13, 352:23, 356:18, 357:1, 359:9, 359:10, 360:3, 360:12, 360:21, 366:4, 385:25, 386:3, 386:5, 386:11, 386:21, 386:23, 426:10, 448:24, 449:12, 449:14, 450:15, 463:18, 471:3, 472:19, 478:24, 480:6, 480:8, 480:19, 483:14 incurred [4] - 424:6, 424:9, 425:23 incurs [2] - 449:15, 450:11 indeed [4] - 413:9, 450:20, 455:10, 472:6 independent [1] - 366:20 indicate [2] - 405:20, 412:9 indicated [3] - 455:8, 461:23, 470:9 indicates [1] - 455:20 indifferent [1] - 345:13 indirect [1] - 443:3 individual [3] - 378:7, 378:8, 463:9 individually [1] - 459:10 individuals [2] - 423:1, 423:4 INDUSTRIAL [2] - 491:3, 491:26 industrial [13] - 359:17, 366:9, 407:14, 413:9, 413:25, 415:3, 450:6,</p>	<p>450:7, 450:9, 450:16, 463:3, 463:22, 464:5 industrials [1] - 366:11 inevitably [1] - 446:10 infinite [1] - 405:13 inflow [1] - 423:23 inflows [3] - 423:12, 423:15, 423:16 influence [2] - 412:4, 426:1 information [14] - 347:21, 347:24, 364:13, 378:4, 379:25, 386:13, 388:13, 397:23, 399:23, 409:14, 410:12, 411:10, 411:11, 411:12 INFORMATION [1] - 491:23 infrastructure [2] - 400:6, 400:18 inherently [1] - 438:24 initial [1] - 487:3 INITIATIVES [1] - 491:18 initiatives [1] - 409:9 insert [1] - 453:5 inserted [1] - 454:8 insignificant [2] - 465:17, 465:18 installed [3] - 394:7, 400:15, 423:20 instance [3] - 416:23, 435:24, 442:23 instantaneous [1] - 394:15 instead [2] - 431:20, 463:7 institute [2] - 369:21, 369:23 instituting [2] - 353:19, 419:12 institution [1] - 356:10 integrated [6] - 398:16, 408:14, 453:14, 471:23, 472:1, 473:3 integration [1] - 472:19 intended [7] - 359:18, 400:2, 449:2, 449:5, 465:4, 474:9, 486:9 intentions [2] - 476:3, 476:4 interconnect [1] - 404:15 interconnection [2] - 402:22, 404:16 interest [1] - 401:7 interested [6] - 371:22, 393:20, 406:24, 417:11, 470:3, 482:16 interesting [4] - 393:17, 395:1, 483:19, 483:21 interim [7] - 388:5, 388:6, 389:4, 389:20, 468:11, 486:3, 486:5 intermediate [2] - 403:10, 403:18 internal [1] - 411:22 interpretation [2] -</p>	<p>478:9, 483:23 interpretation's [1] - 419:21 interpreted [1] - 338:16 interrogatory [5] - 392:12, 392:15, 392:20, 392:22, 412:19 interruption [1] - 451:3 intervener [1] - 410:24 intervening [1] - 448:9 intervenor [1] - 419:8 interveners [1] - 418:21 intricate [1] - 405:24 intriguing [1] - 373:9 invent [1] - 453:12 inventory [1] - 410:24 inverted [1] - 446:24 invest [1] - 409:8 investment [10] - 359:15, 359:16, 361:2, 401:7, 401:10, 424:18, 424:23, 425:5, 425:6 investments [1] - 382:5 involved [8] - 370:21, 389:25, 413:2, 417:22, 417:24, 461:21 INVOLVED [1] - 491:23 IR [5] - 392:23, 397:13, 446:7, 446:8, 465:21 irony [1] - 488:3 IRs [2] - 344:13, 368:20 IS [3] - 491:16, 491:23, 491:24 isolate [1] - 389:3 issue [28] - 340:4, 348:10, 348:14, 366:13, 367:10, 368:13, 379:1, 394:23, 400:25, 402:13, 416:5, 416:13, 416:25, 417:13, 426:22, 433:17, 452:19, 452:21, 454:13, 471:24, 472:1, 482:9, 482:14, 482:15, 484:7, 485:2, 488:10 issued [3] - 377:16, 443:18, 443:21 issues [20] - 344:18, 344:19, 347:3, 362:10, 365:1, 384:15, 404:16, 405:23, 406:1, 412:2, 417:22, 434:16, 449:20, 464:9, 472:12, 473:18, 479:25, 488:13 IT [2] - 491:23, 491:24 item [6] - 342:8, 414:16, 415:13, 415:14, 449:22, 477:16 items [2] - 370:20, 450:21</p>	<p>itself [3] - 341:16, 385:18, 391:5</p> <p style="text-align: center;">J</p> <p>January [2] - 347:19, 377:19 job [2] - 356:1, 461:25 jobs [1] - 385:21 Joint [1] - 336:8 jointly [3] - 344:9, 441:25, 478:17 joke [1] - 375:7 Js [1] - 359:19 judgment [2] - 340:23, 467:5 judgmental [1] - 440:12 July [2] - 396:5, 396:7 jump [1] - 433:14 June [1] - 347:18 jurisdiction [1] - 428:8 jurisdictions [4] - 345:7, 346:11, 351:20, 464:14 justify [2] - 419:22, 422:6</p> <p style="text-align: center;">K</p> <p>keep [8] - 389:4, 402:13, 403:16, 421:4, 440:2, 483:18, 483:20, 487:15 keeping [1] - 353:16 Kellgren [9] - 337:18, 372:7, 374:21, 380:10, 392:18, 467:10, 490:5, 490:22, 492:4 kellgren [1] - 337:14 KELLGREN [8] - 337:20, 338:3, 338:4, 338:11, 338:13, 349:6, 349:9, 374:18 Keough [1] - 337:11 kept [1] - 484:24 key [9] - 340:4, 355:7, 355:17, 367:24, 437:13, 446:3, 446:12, 470:3, 486:21 keys [1] - 456:22 kick [1] - 352:1 kiln [1] - 410:8 kilowatt [7] - 347:18, 351:17, 352:1, 352:2, 352:7, 352:12, 352:14, 353:3, 354:11, 356:20, 356:21, 362:1, 362:5, 373:13, 373:21, 377:13, 377:17, 388:18, 389:11, 389:12, 389:17, 389:25, 390:22, 391:6, 391:13, 404:22, 408:17, 408:20, 408:24, 408:25, 409:15, 425:7, 425:8, 426:16, 426:17, 431:19, 432:15, 432:16, 435:25, 436:14, 436:18, 436:24, 455:15, 455:17, 455:22,</p>	<p>456:1, 457:21, 458:21, 459:5, 459:16, 460:5, 460:6, 460:8, 460:10, 460:11, 460:18, 461:3, 462:10, 462:11, 462:12, 465:9, 465:16, 467:1, 467:3, 477:20, 477:23, 479:15, 480:13, 485:10, 485:14 kilowatts [2] - 391:10, 469:18 kind [4] - 356:12, 406:4, 408:13, 430:11 knowledge [2] - 349:11, 470:18</p> <p style="text-align: center;">L</p> <p>L.G [1] - 337:11 lack [1] - 371:3 Lake [11] - 353:10, 362:9, 363:8, 363:12, 363:16, 363:23, 365:12, 420:11, 441:22, 454:22, 454:24 Lake's [1] - 363:9 Laking [1] - 337:7 LANDRY [3] - 337:23, 488:25, 489:4 Landry [4] - 337:12, 488:23, 490:18, 492:3 language [8] - 387:3, 399:10, 416:11, 449:2, 454:10, 462:25, 482:23, 484:12 large [31] - 347:24, 348:5, 352:21, 353:12, 353:25, 358:24, 362:19, 376:19, 377:9, 380:2, 382:2, 387:15, 396:19, 410:7, 419:14, 421:20, 429:21, 433:14, 437:2, 441:23, 450:17, 457:20, 463:20, 464:6, 464:9, 464:18, 464:19, 464:20, 469:16, 469:19, 487:20 largely [1] - 366:15 larger [5] - 359:17, 427:12, 437:4, 463:24, 479:14 largest [2] - 456:2, 468:20 last [23] - 365:15, 369:6, 373:18, 378:25, 380:12, 384:16, 401:24, 412:5, 414:7, 429:1, 441:3, 441:19, 441:20, 442:2, 442:20, 444:11, 453:9, 462:12, 472:10, 480:21, 485:7, 488:8 late [2] - 418:22, 418:25 launch [1] - 428:22 laundry [4] - 404:20, 404:21, 404:25, 405:6 layman [1] - 416:15 layman's [1] - 416:4 LE [4] - 388:21,</p>
---	---	---	--	--

435:9, 491:20, 491:25 LE-10 [1] - 344:14 LE-YEC/YECL [2] - 491:20, 491:25 Lea [1] - 337:15 lead [10] - 368:14, 368:15, 370:24, 370:25, 374:9, 415:20, 450:17, 456:18, 479:16 Leading [3] - 337:14, 459:14, 460:20 leads [2] - 394:8, 447:18 leaping [1] - 345:10 learn [3] - 346:3, 357:22, 464:13 learning [1] - 398:19 least [19] - 340:15, 340:20, 342:3, 355:10, 365:9, 365:17, 378:1, 379:14, 383:15, 385:12, 393:19, 395:5, 401:15, 422:25, 434:18, 436:5, 468:19, 471:22, 472:9 leave [3] - 368:4, 382:7, 481:4 leaving [1] - 362:18 led [3] - 373:1, 437:17 left [7] - 337:19, 347:11, 366:13, 374:7, 385:22, 390:21, 475:9 left-hand [1] - 347:11 leftover [1] - 408:7 length [1] - 446:4 less [17] - 339:7, 339:16, 341:10, 358:22, 361:25, 388:23, 389:1, 389:13, 389:16, 415:3, 416:1, 422:21, 438:11, 455:20, 459:25, 474:5, 486:23 letter [1] - 370:24 letting [1] - 421:11 level [32] - 349:23, 353:13, 356:23, 357:23, 358:2, 361:21, 373:22, 377:4, 377:6, 378:21, 381:12, 386:14, 386:17, 388:22, 389:13, 389:25, 396:13, 398:10, 402:12, 403:6, 416:15, 429:13, 433:1, 436:13, 436:15, 456:4, 459:17, 468:19, 469:22, 478:2, 480:18, 487:2 levelized [1] - 352:3 levels [14] - 352:25, 379:15, 384:11, 385:6, 398:22, 398:25, 399:20, 403:9, 436:12, 440:8, 456:15, 467:7, 468:25, 479:9 life [1] - 374:9 lifetime [1] - 364:23 light [4] - 340:24, 382:6, 405:19, 424:22 lights [2] - 373:10, 382:8	likely [2] - 430:10, 465:17 limit [3] - 379:6, 433:17, 433:18 limited [6] - 352:10, 367:5, 367:6, 405:12, 416:22, 486:12 Limited [1] - 336:7 limiting [1] - 404:5 line [4] - 342:1, 445:19, 475:25, 477:9 linkage [1] - 426:21 linked [3] - 351:25, 413:5, 414:17 list [3] - 344:23, 371:19, 436:4 listened [1] - 469:25 lived [1] - 359:16 living [1] - 354:16 load [57] - 347:2, 359:17, 361:3, 394:4, 394:18, 394:23, 395:23, 399:20, 407:1, 407:2, 408:25, 413:19, 413:21, 413:23, 414:25, 415:1, 415:4, 415:6, 415:9, 415:13, 415:14, 415:17, 415:19, 415:21, 416:6, 416:18, 417:12, 420:10, 420:11, 420:15, 421:16, 425:10, 425:13, 425:21, 428:25, 429:12, 430:7, 449:15, 449:25, 450:7, 450:12, 450:23, 454:25, 456:15, 456:17, 456:18, 467:22, 468:8, 470:8, 471:3, 471:11, 471:14, 472:17, 472:19 loads [12] - 343:7, 368:7, 388:1, 397:15, 398:7, 427:2, 427:12, 430:25, 440:13, 471:7, 472:7, 483:6 locking [1] - 368:13 logical [2] - 403:14, 452:5 logistical [3] - 343:18, 344:15, 344:19 long-lived [1] - 359:16 long-term [16] - 343:24, 355:5, 356:5, 362:9, 397:16, 398:1, 398:21, 398:25, 428:23, 445:8, 456:13, 456:15, 461:13, 465:23, 473:8, 487:16 longer-term [1] - 469:4 look [29] - 340:17, 343:23, 348:18, 356:7, 367:19, 368:7, 368:8, 377:11, 379:1, 386:8, 389:4, 389:7, 389:18, 397:14, 398:1, 403:16, 424:14, 427:17, 432:5, 433:5, 440:7, 457:23, 463:8, 468:17, 477:7, 479:23, 487:11,	487:13 looked [7] - 344:23, 347:23, 379:4, 433:7, 435:17, 458:6, 461:2 looking [34] - 346:13, 352:4, 357:14, 364:15, 368:3, 368:4, 368:5, 368:8, 371:17, 375:14, 375:17, 377:18, 377:20, 382:9, 383:12, 386:23, 388:9, 388:11, 388:14, 389:19, 412:10, 424:20, 426:24, 427:2, 427:11, 433:3, 436:11, 438:25, 448:18, 457:1, 470:19, 476:6, 487:11 looming [1] - 445:23 loosely [1] - 452:22 lose [1] - 410:17 losses [1] - 387:3 love [1] - 358:11 low [6] - 357:16, 383:9, 395:22, 398:2, 433:6, 475:4 low-income [1] - 383:9 lower [32] - 338:18, 353:23, 356:19, 359:23, 363:9, 373:8, 373:13, 374:3, 381:23, 386:17, 405:2, 410:5, 418:7, 422:1, 422:3, 422:5, 427:6, 438:6, 439:11, 439:21, 439:24, 446:11, 454:1, 460:9, 473:25, 474:12, 476:6, 476:8, 477:22, 481:20, 484:23 lowers [1] - 482:22 lowest [4] - 350:23, 357:11, 357:13, 357:15 Ltd [2] - 337:11, 337:15 lunch [2] - 338:6, 342:2	361:24, 370:15, 384:23, 388:23, 388:25, 438:17, 468:15, 479:7 manage [1] - 470:4 manageable [1] - 437:1 managed [2] - 441:25, 442:5 Manitoba [12] - 346:8, 401:5, 402:13, 402:17, 404:6, 404:9, 404:10, 404:13, 404:15, 409:23, 430:17, 480:16 manner [9] - 341:1, 354:10, 400:8, 410:3, 416:7, 449:25, 450:11, 462:24 March [2] - 349:12, 468:12 margin [37] - 342:3, 342:6, 342:9, 342:21, 343:5, 345:19, 346:2, 346:19, 394:21, 395:14, 395:16, 395:17, 396:2, 396:3, 396:10, 397:9, 397:25, 399:9, 399:11, 399:16, 403:25, 414:9, 418:4, 420:10, 420:15, 421:23, 428:18, 429:21, 430:6, 431:12, 445:11, 449:6, 449:7, 449:16, 453:6, 485:1 marginal [3] - 373:7, 373:8, 460:2 margins [2] - 398:20, 406:23 mark [2] - 378:3, 379:18 matched [1] - 425:11 material [18] - 341:22, 374:10, 381:9, 382:9, 396:13, 398:6, 398:10, 398:15, 415:14, 416:15, 427:14, 435:4, 438:5, 438:7, 467:24, 470:9, 471:6, 475:15 materially [3] - 423:10, 431:14, 471:10 math [4] - 359:1, 359:4, 391:3, 391:20 mathematical [1] - 436:10 mathematically [1] - 486:15 mathematics [2] - 359:2, 466:10 matter [29] - 345:21, 349:23, 361:21, 362:2, 366:5, 374:16, 379:10, 382:18, 382:23, 383:25, 385:1, 385:5, 385:18, 388:24, 399:1, 400:13, 403:25, 405:9, 413:1, 414:9, 414:15, 428:18, 433:22, 436:15, 436:19, 447:4, 447:5, 464:10 MATTER [2] - 336:3, 491:3 matter" [1] - 384:9	matters [6] - 337:22, 343:18, 379:24, 387:12, 394:21, 399:14 Mayo [24] - 363:16, 368:5, 397:12, 397:25, 398:4, 398:8, 420:12, 423:20, 427:12, 456:12, 456:25, 470:8, 470:13, 470:15, 471:1, 471:4, 471:9, 471:13, 471:15, 471:23, 472:1, 472:21, 472:23, 473:2 Mayo-Dawson [3] - 420:12, 471:4, 472:21 McLennan [1] - 337:6 mean [42] - 340:8, 342:16, 345:23, 346:10, 347:25, 348:10, 349:24, 360:10, 360:17, 364:12, 364:24, 365:10, 369:8, 374:12, 378:6, 382:7, 382:25, 383:9, 384:1, 386:14, 395:18, 399:10, 399:11, 400:13, 404:9, 404:10, 411:12, 417:9, 426:10, 432:13, 441:10, 451:9, 454:23, 461:1, 468:19, 471:23, 476:21, 477:6, 477:12, 479:23, 485:16, 487:22 meaning [6] - 373:21, 377:21, 394:24, 460:12, 483:11, 487:6 meaningful [7] - 365:23, 374:14, 429:10, 468:18, 470:2, 486:6, 487:2 means [13] - 353:9, 360:11, 360:12, 373:9, 377:22, 394:19, 395:21, 413:16, 416:2, 468:11, 469:16, 476:22, 484:17 meant [4] - 369:4, 396:5, 400:12, 418:8 measure [7] - 371:8, 423:2, 446:19, 446:21, 449:7, 465:23, 476:17 measures [5] - 369:9, 369:13, 370:1, 370:13, 409:10 mechanic [1] - 463:6 mechanism [1] - 452:1 median [1] - 466:23 meet [3] - 419:1, 420:6, 427:12 meeting [1] - 408:2 megawatts [1] - 394:16 Member [3] - 337:6, 337:7, 337:7 memory [1] - 398:12 mention [2] - 381:6, 412:3 mentioned [7] - 371:21, 375:20, 380:18, 380:25,
---	---	---	--	---

M

MADE [2] - 440:25,

490:13

magical [1] - 464:17

magically [1] -

396:23

magnitude [2] -

366:2, 447:4

main [1] - 344:14

maintain [1] - 373:22

maintained [1] -

363:25

Maissan [10] -

337:14, 372:15,

418:19, 419:4,

436:10, 439:5,

457:19, 459:15,

490:7, 491:10

MAISSAN [3] -

419:5, 419:6, 439:2

major [6] - 361:10,

400:5, 433:16,

450:13, 462:15,

487:14

majority [12] -

350:20, 350:23,

350:25, 361:18,

AMICUS REPORTING GROUP

418:19, 452:10, 458:14 merely [1] - 486:24 merging [1] - 482:21 merit [2] - 344:22, 416:21 merited [1] - 416:17 merits [2] - 412:16, 412:18 message [4] - 354:5, 469:23, 470:2 met [1] - 419:2 METER [1] - 491:5 meter [4] - 400:7, 400:10, 400:13, 401:10 metering [3] - 345:2, 345:7, 400:5 meters [3] - 400:15, 400:20, 401:8 method [1] - 407:17 middle [5] - 399:6, 407:6, 407:18, 425:17, 442:24 might [29] - 340:6, 340:10, 340:16, 346:9, 346:14, 346:16, 347:9, 348:5, 349:24, 364:22, 374:2, 374:4, 380:21, 396:16, 397:1, 406:21, 422:14, 428:7, 432:13, 433:17, 434:18, 437:16, 447:11, 468:2, 468:8, 479:22, 487:17, 487:22 mind [10] - 343:13, 353:16, 417:3, 424:15, 424:19, 430:8, 438:14, 454:21, 474:25, 475:2 minds [4] - 356:9, 416:25, 483:18, 483:21 mindset [1] - 393:25 Mine [6] - 370:7, 396:4, 398:24, 414:6, 425:12, 485:1 mine [11] - 370:10, 398:5, 398:8, 450:14, 471:1, 471:3, 472:11, 472:19, 474:10 minimize [1] - 360:13 minimizes [1] - 374:8 minimum [1] - 472:7 minority [1] - 458:13 Minto [5] - 407:16, 472:8, 474:10, 477:9 minus [1] - 440:4 minute [2] - 353:3, 457:7 minutes [2] - 410:25, 489:3 missed [1] - 485:12 mitigate [1] - 384:6 mix [5] - 430:10, 430:14, 451:1, 455:10, 463:6 mixture [1] - 466:19 model [1] - 403:7 models [3] - 397:15, 430:18, 456:11 moderate [2] - 385:7, 434:21 MOLLARD [38] - 337:17, 349:11, 371:14, 376:6, 376:12, 384:10, 400:17, 400:21, 406:6, 406:8, 409:18, 410:13, 411:15, 411:18, 420:16, 422:12, 422:16, 422:22, 423:1, 423:7, 439:13, 439:16, 440:1, 440:7, 440:15, 440:20, 441:2, 441:5, 441:7, 441:12, 444:11, 444:16, 470:22, 490:4, 490:17, 490:20, 491:7, 492:2 Mollard [6] - 370:4, 370:17, 373:2, 408:2, 411:9, 482:11 moment [6] - 363:18, 394:22, 417:14, 460:21, 472:4, 482:17 moments [1] - 394:4 money [8] - 358:14, 358:19, 358:22, 373:11, 397:20, 399:18, 426:15, 454:14 month [44] - 347:16, 352:12, 352:15, 353:3, 354:11, 356:21, 362:1, 376:5, 376:7, 377:14, 377:18, 378:14, 378:17, 378:22, 379:6, 379:19, 388:18, 390:22, 395:6, 395:10, 395:12, 395:17, 397:9, 409:1, 409:15, 432:15, 432:16, 435:25, 436:24, 455:17, 455:22, 456:2, 458:21, 459:6, 459:17, 460:18, 461:4, 462:2, 462:4, 462:10, 467:3, 469:18, 479:16 MONTH [2] - 349:8, 490:11 monthly [13] - 343:8, 343:13, 376:1, 376:9, 379:4, 379:11, 390:20, 431:19, 452:24, 453:1, 453:3, 465:19 months [11] - 342:20, 342:23, 346:21, 378:14, 396:19, 408:5, 412:6, 430:11, 443:1, 453:5, 471:19 morning [2] - 392:17, 469:25 most [21] - 350:24, 367:1, 371:15, 378:21, 379:21, 381:14, 382:1, 385:6, 385:8, 385:12, 385:19, 393:20, 394:11, 400:7, 400:13, 433:23, 434:9, 441:21, 441:25, 465:18, 488:4 mostly [1] - 488:14 move [15] - 340:12, 354:9, 361:3, 362:3, 363:11, 391:11, 405:8, 412:13, 454:19, 469:3, 469:12, 469:14, 485:4, 485:24 moved [2] - 461:10, 461:14 movement [3] - 341:22, 369:13, 445:22 moves [1] - 487:1 moving [10] - 356:23, 360:2, 362:12, 364:18, 367:18, 372:13, 444:2, 469:22, 477:3, 484:15 MR [274] - 337:23, 339:3, 339:20, 339:22, 340:4, 340:10, 341:15, 341:19, 342:5, 342:18, 343:1, 343:3, 343:9, 344:12, 345:6, 346:6, 347:14, 347:20, 347:22, 348:7, 348:13, 348:16, 348:18, 348:20, 348:23, 349:11, 349:15, 349:20, 349:25, 350:6, 350:7, 350:14, 350:18, 351:3, 351:12, 351:15, 352:18, 353:21, 353:25, 354:4, 355:2, 355:16, 356:16, 358:9, 358:11, 358:16, 359:3, 360:5, 360:7, 360:22, 361:13, 361:21, 362:8, 362:23, 364:10, 365:18, 366:23, 368:18, 370:3, 371:14, 372:7, 373:23, 373:25, 375:2, 375:3, 375:13, 375:24, 376:5, 376:6, 376:11, 376:12, 376:21, 376:24, 377:2, 377:15, 378:6, 378:19, 378:24, 379:20, 380:2, 380:14, 380:25, 381:18, 382:11, 382:25, 383:8, 384:10, 384:21, 385:16, 386:4, 386:9, 386:16, 386:19, 387:14, 388:1, 388:11, 388:16, 389:6, 389:10, 389:16, 389:23, 390:11, 390:16, 391:14, 391:21, 392:5, 392:9, 392:16, 392:24, 393:3, 393:5, 393:22, 395:13, 396:11, 397:11, 398:18, 399:22, 400:17, 400:21, 400:22, 400:24, 401:23, 402:11, 403:7, 404:10, 404:13, 406:6, 406:8, 406:10, 406:14, 407:2, 407:14, 408:16, 409:12, 409:18, 409:20, 410:13, 410:15, 410:20, 411:4, 411:7, 411:8, 411:15, 411:16, 411:18, 412:21, 414:5, 416:8, 416:14, 419:5, 419:6, 419:15, 420:4, 420:14, 420:16, 420:17, 420:20, 420:22, 421:6, 421:8, 421:19, 421:20, 422:3, 422:12, 422:16, 422:22, 423:1, 423:7, 423:16, 423:25, 424:14, 424:17, 426:4, 427:16, 429:7, 430:16, 430:24, 431:22, 431:24, 432:1, 432:4, 433:1, 433:12, 434:2, 434:4, 434:8, 435:13, 435:16, 436:3, 436:8, 437:8, 438:20, 439:2, 439:13, 439:16, 439:19, 439:23, 440:1, 440:7, 440:15, 440:20, 441:2, 441:5, 441:7, 441:12, 441:15, 442:19, 443:20, 444:1, 444:2, 444:3, 444:11, 444:16, 445:17, 445:25, 448:5, 449:1, 449:14, 449:22, 450:13, 450:20, 451:9, 451:11, 451:18, 451:24, 452:3, 452:15, 452:18, 452:21, 456:8, 456:10, 456:24, 457:7, 457:9, 457:13, 458:16, 458:22, 459:7, 459:9, 459:12, 460:22, 461:19, 465:20, 466:8, 467:9, 468:17, 469:10, 470:14, 470:22, 471:5, 472:23, 472:25, 474:6, 476:16, 477:15, 478:12, 479:19, 481:25, 482:2, 482:5, 482:8, 482:19, 483:20, 485:12, 485:16, 485:18, 485:22, 486:2, 487:3, 488:9, 488:25, 489:4, 491:2, 492:10 MS [13] - 337:20, 338:3, 338:4, 338:11, 338:13, 349:6, 374:18, 439:8, 451:17, 481:6, 481:10, 481:13, 488:16 multi [1] - 381:21 MULTI [1] - 491:5 multi-family [1] - 381:21 MULTI- RESIDENTIAL [1] - 491:5 MULTIPLE [1] - 491:23 must [3] - 340:24, 374:23, 481:17 N namely [1] - 390:20 Nations [1] - 412:1 natural [1] - 384:22 nature [7] - 357:10, 358:18, 380:12, 410:9, 424:3, 462:21, 486:7 near [9] - 398:21, 427:1, 427:3, 427:4, 429:20, 445:2, 455:11, 471:1, 477:6 near-term [1] - 445:2 nearly [2] - 358:12, 426:18 necessarily [15] - 339:7, 340:8, 343:19, 345:25, 347:4, 357:2, 360:5, 377:20, 382:8, 384:1, 387:11, 460:15, 478:4, 483:25, 487:22 necessary [2] - 356:10, 444:7 necessitates [1] - 358:6 need [44] - 338:23, 340:12, 353:8, 355:19, 355:24, 356:6, 368:2, 368:9, 368:15, 371:18, 385:11, 391:17, 391:19, 396:6, 397:17, 397:19, 402:24, 407:12, 415:21, 423:23, 424:2, 425:3, 425:4, 427:8, 427:10, 442:17, 451:22, 452:2, 452:6, 454:15, 461:24, 462:23, 463:14, 466:16, 472:20, 479:20, 482:11, 483:2, 485:3, 486:2, 486:5, 486:21, 488:10 needed [6] - 361:7, 371:17, 394:8, 454:5, 467:4, 488:2 needling [2] - 394:23, 415:2 needle [1] - 464:17 needs [7] - 357:10, 368:11, 384:5, 418:13, 445:21, 463:1, 466:20 negative [1] - 436:3 negatives [1] - 339:14 negotiated [1] - 407:17 neighbourhood [1] - 440:2 neighbours [1] - 384:14 net [5] - 413:15, 444:4, 448:10, 450:4, 468:4 never [6] - 343:13, 355:21, 355:24, 364:22, 452:4, 458:4 NEW [1] - 491:20 new [19] - 351:25, 357:20, 361:3, 367:18, 372:18, 397:23, 398:16, 415:12, 415:21, 415:23, 442:2, 442:8, 442:11, 442:14, 442:24, 450:13, 450:14, 452:16, 463:13 Newfoundland [3] - 401:6, 404:14, 480:17 next [13] - 346:17, 354:8, 397:10,

<p>410:23, 427:9, 427:11, 429:20, 431:15, 432:7, 432:19, 465:21, 467:25, 471:21 <u>nice</u> [1] - 421:11 <u>night</u> [4] - 345:15 357:21, 404:25, 405:8 <u>NO</u> [6] - 490:24, 490:25, 490:26, 491:14, 491:16 <u>nobody</u> [4] - 366:7, 452:9, 480:5, 482:10 <u>non</u> [15] - 341:14, 349:16, 351:9, 359:17, 375:16, 401:18, 404:15, 419:17, 449:23, 453:23, 462:20, 471:25, 479:11, 481:21, 481:24 <u>non-baseload</u> [1] - 401:18 <u>non-compliant</u> [1] - 341:14 <u>non-government</u> [9] - 349:16, 351:9, 375:16, 419:17, 453:23, 462:20, 479:11, 481:21, 481:24 <u>non-industrial</u> [1] - 359:17 <u>non-interconnect</u> [1] - 404:15 <u>non-surplus</u> [1] - 471:25 <u>non-wholesale</u> [1] - 449:23 <u>none</u> [4] - 377:18, 392:7, 417:22, 426:25 <u>normal</u> [6] - 338:25, 456:15, 473:5, 478:20, 480:25, 487:7 <u>north</u> [2] - 385:9, 402:3 <u>northern</u> [3] - 365:13, 480:16, 480:17 <u>Northwest</u> [1] - 480:16 <u>not-too-distant</u> [1] - 357:18 <u>notable</u> [3] - 445:20, 466:20, 479:1 <u>notably</u> [2] - 409:7, 455:13 <u>note</u> [14] - 366:23, 414:20, 432:11, 432:22, 435:24, 444:18, 447:15, 452:16, 455:4, 455:18, 461:21, 463:25, 465:1, 470:7 <u>noted</u> [8] - 343:15, 344:15, 344:18, 368:18, 422:4, 437:9, 437:18, 460:14 <u>notes</u> [2] - 391:22, 410:15 <u>nothing</u> [6] - 346:20, 368:21, 391:7, 394:6, 417:4, 473:5 <u>noting</u> [1] - 445:17 <u>notwithstanding</u> [2] - 383:5, 424:3 <u>November</u> [2] - 345:22 <u>number</u> [42] - 347:11, 347:17,</p>	<p>353:1, 356:8, 375:12, 375:23, 375:24, 376:1, 376:5, 376:6, 376:15, 377:5, 378:7, 381:5, 390:24, 414:14, 419:10, 427:7, 431:20, 431:21, 433:6, 433:19, 434:10, 434:11, 434:17, 435:7, 437:2, 445:22, 446:11, 447:10, 454:8, 461:2, 462:18, 466:19, 484:23, 484:25, 485:23, 486:7, 486:24, 487:1, 487:2, 487:7 <u>NUMBER</u> [2] - 491:21, 491:24 <u>numbers</u> [22] - 351:6, 352:16, 360:23, 375:19, 376:14, 376:22, 379:4, 379:11, 383:14, 390:20, 398:10, 409:11, 409:12, 430:19, 431:19, 436:4, 436:17, 458:6, 467:12, 472:2, 472:4, 478:6 <u>NUMBERS</u> [2] - 491:22, 491:24 <u>numerical</u> [1] - 451:7 <u>NUMERICAL</u> [3] - 451:19, 490:14, 491:2</p> <p style="text-align:center">O</p> <p><u>O&M</u> [1] - 387:5 <u>o'clock</u> [2] - 401:18, 418:22 <u>objections</u> [1] - 455:6 <u>objective</u> [2] - 343:22, 463:16 <u>objectives</u> [3] - 357:25, 367:23, 416:10 <u>observe</u> [1] - 429:12 <u>obviously</u> [8] - 339:9, 386:1, 400:10, 402:8, 409:11, 420:11, 437:19, 479:20 <u>occasionally</u> [1] - 400:23 <u>occur</u> [7] - 364:22, 397:4, 414:25, 423:13, 423:16, 456:6 <u>occurring</u> [1] - 447:23 <u>occurs</u> [1] - 430:7 <u>October</u> [7] - 336:21, 337:5, 385:25, 431:17, 431:18, 471:2, 472:7 <u>OF</u> [11] - 336:3, 451:20, 490:14, 491:15, 491:17, 491:21, 491:21, 491:24, 491:24, 492:10 <u>OFF</u> [1] - 374:24 <u>OFFERED</u> [1] - 491:2 <u>offhand</u> [1] - 441:13 <u>offset</u> [1] - 450:3 <u>often</u> [1] - 432:13 <u>OIC</u> [8] - 338:15, 339:19, 356:17,</p>	<p>356:18, 359:25, 368:24, 449:3, 458:9 <u>OICs</u> [16] - 339:8, 339:10, 339:13, 339:17, 341:14, 356:12, 356:24, 358:5, 364:3, 364:4, 364:11, 367:2, 367:5, 368:19, 368:22, 369:1 <u>oil</u> [2] - 385:3, 385:7 <u>old</u> [6] - 373:12, 398:22, 403:7, 442:6, 442:23, 460:9 <u>Old</u> [16] - 349:22, 351:8, 351:10, 351:22, 352:5, 352:11, 352:14, 353:19, 362:19, 362:24, 377:10, 387:16, 387:17, 419:14, 421:21, 480:3 <u>ON</u> [1] - 491:23 <u>once</u> [10] - 347:1, 408:22, 429:12, 433:8, 433:20, 442:13, 443:16, 443:20, 445:10, 474:21 <u>one</u> [102] - 338:7, 343:14, 344:1, 344:13, 346:6, 346:12, 347:15, 350:1, 352:17, 352:22, 354:21, 355:15, 358:24, 361:13, 364:6, 365:6, 366:9, 367:23, 370:20, 372:16, 373:1, 373:5, 373:6, 373:7, 373:8, 373:16, 373:18, 375:15, 378:1, 378:13, 378:14, 378:16, 379:6, 379:9, 380:15, 380:16, 381:6, 382:8, 385:19, 389:13, 390:4, 390:12, 392:11, 397:9, 397:13, 400:24, 401:16, 406:3, 407:20, 408:7, 411:10, 412:8, 412:12, 412:14, 413:12, 414:12, 415:12, 415:17, 416:5, 416:13, 416:23, 419:21, 421:2, 422:10, 426:23, 431:15, 432:5, 432:17, 433:5, 435:2, 436:4, 436:21, 450:21, 452:24, 453:21, 456:10, 456:13, 457:16, 458:6, 458:24, 463:19, 466:20, 467:25, 468:17, 472:19, 474:5, 474:18, 475:9, 476:10, 476:25, 477:15, 478:9, 482:22, 487:17, 488:5, 488:6 <u>ONE</u> [1] - 491:21 <u>one's</u> [1] - 424:18 <u>one-block</u> [1] - 413:12 <u>one-tenth</u> [1] - 387:6 <u>ones</u> [5] - 344:15, 346:14, 398:9,</p>	<p>435:20, 463:20 <u>ongoing</u> [3] - 360:25, 446:2, 450:5 <u>online</u> [1] - 361:3 <u>Ontario</u> [8] - 401:2, 401:14, 401:25, 403:5, 403:9, 403:24, 404:20, 407:8 <u>open</u> [1] - 469:12 <u>opening</u> [8] - 342:12, 344:10, 347:10, 350:19, 374:12, 375:9, 477:22, 488:21 <u>Opening</u> [1] - 490:21 <u>operated</u> [2] - 345:21, 415:7 <u>OPERATES</u> [2] - 451:20, 490:15 <u>operates</u> [4] - 393:24, 418:4, 421:10, 451:8 <u>operating</u> [2] - 425:13, 485:1 <u>operation</u> [2] - 356:12, 358:4 <u>opinion</u> [3] - 451:25, 452:11 <u>opportunity</u> [14] - 338:6, 340:1, 365:5, 372:2, 372:23, 373:10, 411:19, 418:17, 418:23, 430:3, 450:10, 464:4, 464:6, 466:22 <u>OPPOSED</u> [1] - 491:24 <u>opposed</u> [7] - 362:18, 381:23, 382:5, 415:20, 425:20, 426:11, 426:22 <u>Option</u> [138] - 338:20, 339:12, 349:14, 349:18, 349:21, 350:24, 350:25, 351:9, 354:23, 355:3, 355:10, 360:23, 361:9, 362:4, 362:5, 362:6, 362:13, 363:12, 363:21, 366:21, 367:24, 368:10, 368:11, 373:20, 386:1, 387:21, 388:19, 388:20, 389:1, 389:2, 389:25, 390:2, 391:9, 391:10, 392:3, 392:4, 392:6, 392:7, 392:15, 392:19, 392:22, 393:8, 393:11, 409:4, 409:11, 409:13, 432:7, 432:20, 432:21, 434:6, 435:11, 435:12, 435:14, 435:24, 436:9, 436:21, 437:3, 437:9, 437:13, 437:18, 438:2, 444:18, 444:20, 444:21, 445:3, 445:20, 446:7, 446:15, 447:7, 447:9, 447:15, 447:16, 448:3, 448:10, 448:16, 455:6, 455:11, 457:5, 457:15, 458:12, 459:13, 460:23, 461:1, 461:4, 461:9,</p>	<p>461:15, 465:1, 465:5, 465:12, 465:22, 466:1, 467:7, 468:19, 468:21, 469:6, 469:9, 469:10, 469:12, 469:14, 469:24, 470:4, 470:5, 478:6, 478:14, 478:16, 478:22, 479:3, 479:5, 484:14, 485:11, 485:13, 485:16, 485:19, 485:21, 485:22, 485:24, 485:25, 486:1, 486:19, 486:20, 486:21, 486:24, 487:1 <u>option</u> [19] - 341:17, 352:4, 371:18, 374:17, 387:22, 388:21, 390:13, 392:25, 393:4, 407:18, 412:10, 435:1, 435:2, 435:9, 435:20, 436:9, 454:5, 458:12, 486:19 <u>optional</u> [2] - 392:22, 392:23 <u>Options</u> [2] - 436:9, 446:3 <u>options</u> [27] - 341:16, 341:19, 344:23, 344:24, 350:15, 353:2, 356:1, 361:16, 371:18, 372:9, 373:5, 375:15, 382:1, 382:20, 385:21, 387:23, 388:7, 388:16, 390:8, 392:13, 417:13, 438:24, 446:10, 460:19, 465:16, 487:12, 487:24 <u>OR</u> [4] - 440:25, 490:13, 491:21, 491:24 <u>Order</u> [21] - 340:11, 358:16, 358:17, 359:6, 366:5, 366:6, 366:14, 367:3, 407:15, 419:9, 419:11, 420:7, 445:4, 449:2, 474:16, 475:11, 476:5, 480:10, 480:25, 481:14, 482:21 <u>order</u> [16] - 351:23, 355:19, 366:17, 401:17, 414:10, 414:14, 414:15, 417:9, 417:18, 425:24, 443:12, 453:7, 453:9, 465:25, 484:23 <u>Order-in-Council</u> [18] - 340:11, 358:17, 359:6, 366:5, 366:14, 367:3, 407:15, 419:9, 419:11, 420:7, 445:4, 474:16, 475:11, 476:5, 480:10, 480:25, 481:14, 482:21 <u>Order-in-Council's</u> [2] - 358:16, 449:2 <u>Order-In-Councils</u> [1] - 366:6 <u>orderly</u> [2] - 341:23, 346:14 <u>Orders</u> [2] - 374:14, 445:7</p>
--	---	--	---	---

<p>Orders-in-Council [2] - 374:14, 445:7</p> <p>oriented [2] - 460:20, 463:14</p> <p>original [3] - 437:9, 480:10, 487:15</p> <p>originally [1] - 364:1</p> <p>OSLER [163] - 337:17, 339:3, 339:20, 339:22, 340:4, 340:10, 341:15, 341:19, 342:18, 343:1, 346:6, 347:20, 347:22, 348:4, 348:7, 348:9, 348:13, 348:16, 348:20, 348:23, 348:25, 349:15, 349:25, 350:7, 350:14, 350:18, 351:3, 352:18, 353:21, 353:25, 354:4, 355:2, 355:16, 356:16, 358:9, 358:11, 358:16, 360:7, 361:13, 361:21, 362:8, 362:23, 364:10, 365:18, 370:3, 373:23, 373:25, 375:13, 376:5, 376:11, 376:21, 378:24, 380:2, 380:14, 383:8, 384:21, 385:16, 386:4, 386:9, 386:16, 387:14, 388:1, 388:11, 388:16, 389:6, 389:10, 389:16, 389:23, 390:11, 390:16, 391:14, 391:21, 391:24, 392:5, 392:9, 392:16, 392:24, 393:3, 396:11, 397:11, 398:18, 399:22, 400:22, 401:23, 402:11, 403:7, 404:10, 407:2, 407:14, 411:8, 411:16, 416:8, 416:14, 419:15, 420:4, 420:22, 421:6, 421:19, 427:16, 429:7, 430:16, 430:24, 431:22, 431:24, 432:1, 432:4, 433:1, 433:12, 434:2, 434:4, 434:8, 435:13, 435:16, 437:8, 438:20, 439:19, 439:23, 442:19, 444:1, 444:3, 445:25, 449:1, 449:14, 450:13, 451:18, 451:24, 452:3, 452:15, 452:18, 452:21, 456:8, 456:10, 456:24, 457:7, 457:9, 459:7, 460:22, 465:20, 468:17, 469:10, 470:14, 471:5, 472:23, 472:25, 476:16, 478:12, 479:19, 481:25, 482:2, 482:5, 482:8, 483:20, 485:12, 485:16, 485:18, 485:22, 487:3, 488:9,</p>	<p>490:4, 490:17, 490:20, 491:7, 492:2</p> <p>Osler [5] - 339:5, 371:21, 413:8, 425:9, 430:23</p> <p>Osler's [3] - 367:1, 399:17, 467:20</p> <p>otherwise [1] - 407:24</p> <p>OUT [1] - 492:9</p> <p>OUTAGE [1] - 491:14</p> <p>outage [1] - 450:22</p> <p>outcome [3] - 447:24, 448:3, 460:16</p> <p>outlet [1] - 410:6</p> <p>OUTLINES [2] - 349:8, 490:10</p> <p>outlines [1] - 347:15</p> <p>outside [9] - 349:22, 372:25, 403:13, 403:19, 404:2, 427:7, 431:10, 448:9, 479:23</p> <p>outstanding [2] - 440:18, 441:3</p> <p>OUTSTANDING [2] - 440:24, 490:12</p> <p>OVER [2] - 441:1, 490:13</p> <p>overall [26] - 346:1, 358:17, 360:9, 360:17, 367:20, 425:11, 426:21, 430:10, 433:23, 448:17, 450:4, 460:13, 460:20, 464:12, 465:3, 466:12, 467:13, 467:17, 467:25, 473:14, 474:8, 474:19, 476:12, 477:10, 479:10</p> <p>overriding [1] - 463:14</p> <p>overtones [1] - 483:25</p> <p>own [4] - 416:10, 419:9, 450:1, 453:24</p>	<p>paragraph [2] - 341:7, 341:9</p> <p>parallel [1] - 464:23</p> <p>parameters [1] - 483:4</p> <p>parlance [1] - 483:25</p> <p>part [32] - 343:19, 344:17, 346:24, 371:25, 384:3, 395:1, 399:9, 399:25, 400:1, 402:8, 403:1, 405:17, 415:11, 415:12, 417:8, 418:9, 436:1, 437:5, 444:12, 450:4, 450:9, 450:25, 455:10, 461:24, 465:1, 465:3, 465:17, 465:18, 471:2, 473:16, 476:14</p> <p>PART [1] - 491:21</p> <p>Part [2] - 470:8, 471:9</p> <p>particular [18] - 340:6, 351:4, 352:25, 372:14, 375:14, 375:17, 375:22, 380:18, 393:18, 396:7, 406:17, 407:1, 408:14, 412:25, 415:17, 417:1, 423:21, 454:9</p> <p>particularly [4] - 342:8, 408:4, 432:14, 471:19</p> <p>parties [2] - 371:22, 486:17</p> <p>parts [3] - 375:17, 393:6, 442:5</p> <p>party [1] - 412:24</p> <p>passage [1] - 445:16</p> <p>passes [1] - 368:12</p> <p>PAST [2] - 441:1, 490:13</p> <p>past [10] - 367:8, 398:25, 407:22, 414:22, 440:19, 445:5, 478:19, 480:4, 480:6, 480:25</p> <p>path [2] - 368:1, 445:22</p> <p>pattern [1] - 443:7</p> <p>pay [20] - 354:15, 362:5, 397:21, 401:20, 403:12, 405:1, 414:18, 417:24, 418:13, 431:4, 438:10, 443:15, 454:25, 459:21, 459:25, 460:3, 464:10, 467:18, 476:23, 477:25</p> <p>paving [9] - 340:22, 353:24, 372:2, 416:23, 458:11, 475:18, 475:22, 479:24, 482:9</p> <p>pays [1] - 364:21</p> <p>peace [1] - 485:24</p> <p>PEAK [1] - 491:3</p> <p>peak [20] - 394:15, 394:22, 400:4, 401:15, 401:17, 402:1, 403:2, 403:3, 403:12, 406:21, 406:23, 406:25, 407:2, 407:9, 407:11, 407:16, 407:18, 412:4, 412:13</p> <p>peaker [1] - 431:8</p>	<p>peakers [1] - 403:10</p> <p>peaking [14] - 393:23, 393:24, 394:9, 395:3, 395:8, 396:9, 407:12, 420:16, 420:19, 421:2, 421:9, 421:17, 430:15, 431:7</p> <p>peaks [6] - 393:21, 402:10, 402:15, 402:18, 412:7</p> <p>people [99] - 341:4, 343:14, 344:2, 344:25, 352:5, 355:25, 356:7, 356:18, 357:22, 358:1, 358:11, 362:2, 362:4, 363:4, 363:12, 363:13, 365:6, 366:24, 367:17, 370:21, 371:11, 372:1, 372:22, 374:8, 374:13, 374:15, 378:21, 378:24, 381:2, 382:16, 383:22, 384:4, 384:14, 384:23, 385:9, 385:11, 385:13, 385:14, 388:22, 398:9, 403:11, 405:7, 407:9, 408:1, 410:7, 417:3, 418:23, 426:19, 431:5, 434:10, 434:16, 435:5, 435:6, 435:19, 437:2, 437:11, 437:16, 437:18, 437:24, 438:10, 438:11, 442:6, 443:5, 446:16, 447:10, 459:21, 460:25, 461:15, 461:20, 462:3, 462:6, 463:21, 463:22, 464:1, 464:9, 466:14, 466:23, 467:15, 467:21, 468:3, 468:13, 468:22, 468:24, 469:3, 469:21, 469:22, 477:8, 479:24, 480:2, 480:10, 480:18, 484:1, 484:23, 485:4, 487:10, 487:24, 488:2</p> <p>people's [4] - 356:9, 378:20, 408:12, 434:9</p> <p>per [15] - 376:5, 376:7, 377:14, 379:19, 389:7, 389:11, 409:1, 409:15, 452:6, 455:17, 455:22, 456:1, 458:21, 459:5, 479:16</p> <p>percent [82] - 338:18, 338:21, 339:7, 339:16, 340:13, 341:11, 341:21, 349:22, 352:22, 352:23, 353:11, 354:17, 360:2, 360:21, 361:6, 362:3, 365:22, 366:12, 386:2, 387:20, 387:23, 388:19, 388:20, 388:21, 389:18, 389:19, 390:1, 390:3, 391:6, 391:7, 391:11, 391:16, 391:25,</p>	<p>409:6, 413:13, 418:6, 422:7, 431:22, 431:23, 433:5, 433:22, 433:23, 436:24, 437:1, 437:15, 437:20, 453:25, 454:10, 454:24, 455:20, 458:19, 459:2, 459:17, 459:19, 459:20, 459:23, 460:17, 461:1, 461:3, 461:6, 461:11, 461:12, 462:1, 462:19, 462:22, 465:7, 465:14, 466:6, 466:15, 469:18, 474:14, 474:19, 474:20, 474:23, 475:14, 478:24, 486:10, 486:23</p> <p>percentage [16] - 358:8, 365:24, 390:6, 390:13, 390:19, 391:15, 422:9, 430:9, 430:14, 431:20, 431:21, 432:12, 432:13, 438:4, 438:18</p> <p>percentages [1] - 392:6</p> <p>perfect [1] - 430:18</p> <p>perhaps [13] - 339:15, 354:22, 364:1, 364:5, 382:17, 414:14, 422:6, 424:20, 425:18, 457:13, 458:23, 459:9</p> <p>period [27] - 346:21, 354:6, 354:9, 367:14, 379:7, 397:5, 401:16, 423:23, 428:16, 428:19, 429:9, 429:11, 429:25, 442:24, 442:25, 443:8, 443:24, 444:24, 446:2, 446:3, 448:11, 456:5, 456:7, 470:11, 472:14</p> <p>periodically [2] - 452:23, 453:1</p> <p>periods [2] - 403:12, 414:6</p> <p>permanent [1] - 367:3</p> <p>permit [1] - 424:1</p> <p>permits [1] - 338:16</p> <p>person [3] - 410:2, 480:11, 484:11</p> <p>perspective [3] - 366:24, 384:2, 424:17</p> <p>Phase [9] - 336:8, 386:24, 387:1, 387:4, 387:25, 412:22, 441:8, 447:18, 456:6</p> <p>philosophy [1] - 428:14</p> <p>phonetic [1] - 427:20</p> <p>phrase [2] - 445:17, 483:23</p> <p>picked [3] - 361:17, 395:6, 437:9</p> <p>picking [2] - 416:5, 416:12</p> <p>piece [2] - 397:23, 443:5</p> <p>place [6] - 383:23, 419:21, 444:25, 452:1, 464:7, 466:11</p> <p>places [5] - 357:14, 363:10, 388:10,</p>
--	--	--	--	---

<p>430:17, 466:23 <u>plan</u> [10] - 341:23, 353:14, 355:12, 368:9, 368:10, 368:11, 370:5, 394:14, 397:20, 476:14 <u>planning</u> [7] - 337:25, 346:23, 368:7, 418:19, 426:13, 447:2, 448:17 <u>plans</u> [2] - 362:16, 406:7 <u>PLANS</u> [1] - 491:17 <u>plant</u> [5] - 404:22, 405:1, 423:13, 424:18, 431:8 <u>PLANT</u> [1] - 491:14 <u>plants</u> [6] - 423:19, 423:20, 424:6, 424:9, 424:10, 427:14 <u>play</u> [1] - 419:3 <u>playing</u> [2] - 370:24, 370:25 <u>plug</u> [2] - 374:22, 410:6 <u>plus</u> [2] - 435:20, 440:3 <u>point</u> [47] - 341:21, 341:22, 345:20, 352:13, 353:15, 354:25, 355:3, 358:13, 359:23, 360:20, 364:24, 364:25, 365:1, 369:6, 373:3, 396:25, 404:19, 408:17, 412:3, 414:12, 415:1, 424:23, 425:10, 425:12, 425:17, 429:12, 433:15, 433:20, 436:5, 436:19, 438:5, 442:25, 445:25, 450:2, 451:5, 457:16, 459:15, 460:7, 463:17, 464:17, 468:11, 471:17, 475:20, 486:10, 486:14, 487:1, 487:17 <u>pointed</u> [1] - 468:6 <u>pointing</u> [1] - 409:23 <u>points</u> [2] - 371:14, 446:7 <u>policy</u> [14] - 354:8, 362:25, 367:4, 367:19, 372:20, 385:20, 411:23, 440:14, 458:18, 459:1, 460:24, 463:16, 477:13, 480:3 <u>poor</u> [2] - 447:24, 448:3 <u>population</u> [3] - 465:11, 466:5, 466:7 <u>portion</u> [5] - 424:5, 424:11, 429:22, 449:3, 454:4 <u>position</u> [8] - 340:11, 341:10, 341:13, 365:2, 383:5, 412:17, 448:2, 460:23 <u>positive</u> [1] - 370:1 <u>possibility</u> [4] - 381:8, 381:17, 381:18, 427:3 <u>possible</u> [9] - 375:7, 375:8, 378:10, 400:7, 400:13, 400:19, 400:24, 415:18, 437:6</p>	<p><u>possibly</u> [3] - 367:15, 396:6, 416:5 <u>potential</u> [2] - 343:15, 409:7 <u>potentially</u> [2] - 338:19, 364:8 <u>pottery</u> [1] - 410:8 <u>power</u> [16] - 345:22, 359:7, 382:16, 397:14, 402:21, 403:5, 403:13, 403:19, 404:3, 413:13, 426:19, 430:17, 431:9, 456:11, 457:23, 484:24 <u>PPA</u> [2] - 470:25, 471:8 <u>practical</u> [8] - 343:9, 343:11, 352:10, 374:9, 429:5, 430:9, 462:2, 478:3 <u>practicality</u> [2] - 429:2, 452:25 <u>practically</u> [2] - 352:15, 413:15 <u>practice</u> [4] - 407:5, 429:25, 445:6, 478:19 <u>pragmatic</u> [2] - 453:3, 479:23 <u>preamble</u> [1] - 368:18 <u>precedents</u> [2] - 480:15, 480:25 <u>precise</u> [4] - 347:23, 387:11, 459:19, 466:9 <u>precisely</u> [5] - 342:15, 383:17, 456:1, 458:20, 459:5 <u>preclude</u> [1] - 451:22 <u>precludes</u> [1] - 452:2 <u>predict</u> [1] - 423:5 <u>predictability</u> [2] - 344:19, 368:1 <u>predictable</u> [2] - 344:16, 449:10 <u>preferable</u> [1] - 465:6 <u>preferred</u> [3] - 344:10, 386:1, 388:21 <u>preferring</u> [1] - 432:21 <u>prejudice</u> [1] - 363:13 <u>prejudicial</u> [1] - 363:19 <u>preliminary</u> [1] - 337:22 <u>premise</u> [10] - 361:9, 382:13, 395:14, 421:8, 425:2, 448:13, 475:24, 477:19, 486:24 <u>premised</u> [1] - 445:20 <u>prepared</u> [2] - 368:24, 435:15 <u>present</u> [5] - 390:20, 409:1, 434:24, 444:12, 479:9 <u>presently</u> [2] - 400:6, 400:12 <u>presume</u> [1] - 399:14 <u>presumably</u> [5] - 376:9, 395:2, 402:8, 422:1, 422:19 <u>presume</u> [3] - 403:1, 406:5, 410:11 <u>pretty</u> [7] - 351:20, 395:6, 398:10,</p>	<p>398:14, 423:2, 471:16, 478:1 <u>prevent</u> [1] - 419:12 <u>previous</u> [2] - 350:1, 379:23 <u>previously</u> [4] - 337:17, 352:8, 387:7, 387:12 <u>price</u> [89] - 342:14, 342:17, 342:24, 343:23, 344:3, 344:5, 345:8, 351:22, 353:12, 353:22, 353:23, 354:3, 354:18, 354:24, 354:25, 363:3, 363:9, 363:14, 363:15, 363:16, 363:23, 364:18, 364:25, 365:14, 365:20, 365:25, 372:1, 372:3, 372:14, 372:16, 372:22, 373:7, 373:8, 373:12, 373:15, 374:2, 374:3, 380:10, 380:17, 380:20, 380:23, 381:10, 381:16, 381:25, 382:10, 382:12, 382:14, 383:4, 383:6, 385:2, 385:3, 413:13, 413:18, 413:22, 417:5, 421:13, 422:8, 422:20, 426:10, 427:1, 427:4, 441:8, 441:18, 442:14, 443:8, 445:8, 449:17, 460:3, 460:13, 460:16, 461:5, 462:10, 462:12, 462:13, 463:15, 463:17, 465:5, 467:22, 469:3, 469:5, 473:23, 475:3, 480:21, 483:7, 484:3, 484:20, 485:3 <u>priced</u> [2] - 460:10, 460:11 <u>prices</u> [11] - 367:12, 385:14, 401:19, 401:20, 422:4, 427:6, 442:3, 442:12, 442:24, 447:21 <u>pricing</u> [8] - 345:1, 366:4, 401:4, 417:3, 464:7, 467:6, 469:4, 473:19 <u>primarily</u> [1] - 423:17 <u>primary</u> [2] - 363:8, 455:6 <u>principals</u> [1] - 484:1 <u>principle</u> [3] - 421:7, 428:19, 443:14 <u>principled</u> [1] - 384:12 <u>principles</u> [7] - 339:1, 355:6, 357:13, 416:17, 478:20, 481:1, 484:4 <u>priorities</u> [2] - 361:7, 370:11 <u>priority</u> [5] - 360:25, 370:8, 370:16, 371:3, 486:25 <u>probability</u> [1] - 381:8 <u>problem</u> [13] - 368:16, 374:22, 374:23, 403:15, 416:2, 418:11,</p>	<p>430:19, 431:5, 449:8, 449:10, 453:16, 464:3, 488:4 <u>problems</u> [1] - 383:4 <u>proceed</u> [2] - 374:25, 481:12 <u>proceeding</u> [7] - 382:24, 383:16, 401:11, 424:19, 448:1, 448:4, 454:9 <u>proceedings</u> [1] - 379:23 <u>Proceedings</u> [1] - 337:1 <u>process</u> [16] - 341:23, 346:14, 360:19, 407:19, 401:1, 424:19, 442:16, 442:17, 444:22, 446:7, 447:19, 461:25, 465:21, 465:25, 486:21, 487:16 <u>PRODUCE</u> [1] - 491:15 <u>production</u> [1] - 357:1 <u>profile</u> [2] - 423:11, 424:22 <u>profound</u> [1] - 469:24 <u>program</u> [4] - 372:6, 407:13, 408:5, 412:5 <u>programming</u> [2] - 373:1 <u>programs</u> [5] - 371:11, 379:1, 406:19, 407:9, 412:4 <u>progress</u> [1] - 486:22 <u>prohibitive</u> [1] - 400:16 <u>project</u> [9] - 371:22, 427:11, 470:13, 470:23, 471:20, 471:22, 474:10, 475:25, 476:4 <u>Project</u> [2] - 428:1 <u>PROJECT</u> [1] - 491:21 <u>Projects</u> [1] - 337:14 <u>projects</u> [2] - 369:15, 427:18 <u>PROJECTS</u> [2] - 491:20, 491:24 <u>promise</u> [1] - 369:7 <u>proper</u> [2] - 382:19, 454:16 <u>properties</u> [1] - 381:13 <u>proportion</u> [3] - 465:10, 466:5, 466:6 <u>proposal</u> [7] - 360:24, 412:18, 416:1, 459:13, 459:14, 460:15 <u>proposals</u> [3] - 389:25, 459:21, 464:1 <u>propose</u> [2] - 351:23, 474:2 <u>proposed</u> [10] - 349:18, 354:23, 358:5, 362:14, 452:16, 452:20, 462:24, 467:7, 473:20, 485:10 <u>proposing</u> [7] - 372:9, 384:19, 412:25, 414:17, 469:4, 469:15, 475:4</p>	<p><u>protect</u> [1] - 399:17 <u>proves</u> [1] - 432:5 <u>provide</u> [12] - 343:17, 347:15, 347:21, 348:5, 382:21, 404:22, 421:9, 431:21, 440:17, 451:7, 465:4, 470:11 <u>PROVIDE</u> [9] - 349:7, 451:19, 490:10, 490:14, 491:2, 491:5, 491:14, 492:8, 492:9 <u>provided</u> [4] - 347:10, 405:22, 477:18, 479:8 <u>provides</u> [2] - 408:6, 415:25, 408:20, 465:12 <u>providing</u> [1] - 455:12 <u>provision</u> [7] - 413:10, 414:13, 414:21, 415:7, 450:8, 450:10, 465:12 <u>proxy</u> [2] - 379:5, 379:9 <u>prud</u> [2] - 353:13, 475:5 <u>Public</u> [1] - 336:3 <u>pulled</u> [1] - 393:2 <u>punitive</u> [1] - 372:1 <u>purchase</u> [1] - 403:5 <u>pure</u> [1] - 407:19 <u>purpose</u> [2] - 349:25, 351:6 <u>purposes</u> [11] - 349:4, 351:5, 387:2, 392:2, 393:14, 394:9, 395:8, 421:2, 421:3, 425:25, 462:2 <u>pursue</u> [2] - 424:25, 443:6 <u>push</u> [1] - 471:15 <u>put</u> [27] - 345:3, 347:6, 359:25, 365:5, 366:25, 370:9, 373:10, 379:3, 383:16, 384:13, 390:18, 397:20, 399:18, 412:6, 414:19, 416:4, 437:13, 444:8, 447:25, 448:4, 457:15, 458:24, 461:8, 464:7, 474:23, 482:16, 484:11 <u>puts</u> [1] - 365:4 <u>putting</u> [6] - 357:19, 368:13, 378:15, 426:14, 453:12, 486:12</p>
Q				
<p><u>quantity</u> [6] - 359:7, 394:8, 405:12, 462:9, 462:11, 474:11 <u>questioning</u> [3] - 342:1, 369:6, 396:16 <u>QUESTIONS</u> [1] - 439:8 <u>Questions</u> [3] - 490:8, 490:19, 491:11 <u>questions</u> [29] - 342:13, 348:2, 364:11, 374:19, 375:5, 380:6, 392:11, 396:13, 399:24, 408:8, 410:10, 410:21, 411:10,</p>				

411:16, 419:7, 419:8, 423:8, 432:7, 433:2, 439:3, 439:10, 443:9, 457:18, 467:10, 477:17, 481:7, 481:11, 485:8, 488:17 <u>quick</u> [2] - 385:24, 481:8 <u>quickly</u> [5] - 346:9, 348:16, 393:12, 440:10, 482:11 <u>quite</u> [11] - 345:13, 367:5, 395:21, 399:8, 426:4, 432:13, 432:14, 437:4, 451:2, 458:1, 475:1 <u>quo</u> [1] - 445:1 <u>quote</u> [3] - 346:4, 466:4, 471:24 <u>quoted</u> [1] - 445:16 <u>quoting</u> [1] - 455:23 <u>Québec</u> [1] - 480:16	361:2, 361:6, 361:16, 362:3, 362:21, 363:17, 363:25, 364:5, 367:4, 367:11, 367:19, 367:20, 367:23, 367:24, 369:3, 373:5, 374:6, 377:4, 377:6, 383:25, 384:2, 386:2, 386:11, 386:25, 389:24, 395:4, 395:8, 397:3, 405:25, 407:14, 407:17, 408:14, 410:1, 410:5, 413:5, 413:6, 413:7, 413:9, 413:11, 413:12, 413:14, 413:25, 414:2, 417:15, 419:12, 419:13, 419:20, 419:24, 420:1, 420:5, 422:7, 424:25, 425:1, 425:25, 426:6, 426:9, 427:15, 428:5, 428:20, 433:4, 433:9, 433:10, 433:15, 433:22, 434:6, 434:12, 435:9, 435:22, 436:12, 436:24, 437:1, 438:21, 440:8, 444:18, 444:21, 444:22, 444:24, 445:6, 445:12, 445:14, 445:15, 445:18, 445:25, 446:4, 446:11, 446:12, 446:17, 446:19, 446:21, 446:23, 446:25, 447:4, 447:9, 447:22, 449:3, 449:9, 450:8, 450:9, 450:16, 453:17, 454:1, 454:10, 454:13, 454:15, 454:17, 454:19, 454:23, 455:3, 455:13, 456:3, 457:5, 458:3, 458:18, 458:25, 460:2, 460:7, 460:24, 462:3, 462:5, 462:7, 462:8, 462:15, 462:25, 463:5, 463:13, 465:3, 465:10, 465:15, 465:24, 466:1, 466:11, 466:12, 467:15, 468:5, 468:16, 468:18, 473:14, 473:18, 473:20, 473:21, 473:22, 474:3, 474:4, 474:8, 475:4, 475:10, 475:15, 476:4, 476:7, 476:9, 476:18, 476:19, 476:24, 477:3, 478:18, 478:20, 479:1, 479:8, 479:9, 479:16, 480:11, 481:18, 481:20, 482:14, 482:15, 484:10, 484:11, 484:13, 484:22, 484:25 <u>rate-change</u> [1] - 428:20 <u>rate-making</u> [1] - 417:15 <u>rate-related</u> [1] - 426:9	<u>ratemaking</u> [1] - 367:23 <u>ratepayers</u> [7] - 366:16, 366:18, 371:20, 384:12, 412:10, 445:9, 473:15 <u>rates</u> [126] - 338:17, 338:21, 339:9, 339:11, 339:18, 339:23, 339:24, 341:5, 342:13, 342:16, 343:11, 343:15, 344:10, 344:13, 344:15, 344:22, 345:1, 346:8, 349:17, 351:16, 351:24, 356:19, 358:24, 358:25, 360:8, 360:20, 361:12, 362:17, 363:1, 366:11, 367:2, 367:25, 368:12, 368:13, 368:14, 370:9, 372:10, 372:18, 373:19, 382:15, 382:19, 384:3, 384:13, 387:25, 393:15, 393:16, 393:18, 399:25, 400:2, 400:3, 400:11, 401:5, 401:9, 401:14, 405:16, 405:18, 408:10, 409:1, 409:4, 413:10, 419:18, 425:3, 426:1, 426:23, 428:3, 428:4, 428:13, 429:5, 430:3, 430:13, 432:22, 432:24, 432:25, 434:3, 436:2, 436:12, 438:17, 438:18, 444:5, 446:5, 446:24, 447:19, 448:8, 448:12, 448:14, 448:16, 450:19, 463:18, 468:23, 474:1, 474:12, 474:13, 474:18, 475:3, 475:5, 475:10, 475:12, 475:13, 476:1, 476:6, 476:12, 476:15, 476:22, 477:9, 477:14, 477:25, 478:7, 478:19, 478:23, 479:2, 479:25, 480:18, 481:15, 481:17, 481:24, 483:5, 483:12, 483:14, 483:16, 484:2, 484:6, 485:10, 485:15 <u>rather</u> [7] - 365:19, 384:1, 413:12, 423:14, 438:2, 444:25, 486:11 <u>ratio</u> [1] - 474:4 <u>rationale</u> [9] - 360:1, 401:3, 401:9, 402:3, 405:21, 417:1, 420:22, 432:20, 485:25 <u>rationales</u> [1] - 401:13 <u>ratios</u> [1] - 388:2 <u>ratios</u> [1] - 387:22 <u>re</u> [2] - 453:12, 466:12 <u>RE</u> [2] - 490:24, 490:26	<u>re-establishes</u> [1] - 466:12 <u>re-invent</u> [1] - 453:12 <u>react</u> [9] - 380:17, 381:2, 381:10, 381:16, 381:25, 383:7, 383:11, 478:10, 484:16 <u>reacting</u> [1] - 383:4 <u>reaction</u> [1] - 383:9 <u>reactions</u> [1] - 380:24 <u>read</u> [1] - 408:21 <u>reading</u> [1] - 482:20 <u>ready</u> [1] - 371:11 <u>real</u> [3] - 345:25, 391:9, 429:13 <u>real-time</u> [1] - 345:25 <u>realities</u> [2] - 474:6, 476:10 <u>reality</u> [4] - 367:18, 384:24, 385:5, 453:8 <u>really</u> [29] - 347:25, 353:11, 363:22, 374:8, 383:16, 391:17, 394:12, 408:21, 443:22, 397:25, 399:20, 399:21, 405:9, 416:18, 417:11, 418:12, 427:8, 428:22, 429:16, 433:22, 440:10, 440:12, 443:6, 447:4, 447:11, 452:23, 468:2, 476:8, 484:14 <u>reams</u> [1] - 378:11 <u>reason</u> [17] - 344:14, 356:14, 357:4, 357:8, 377:8, 382:19, 389:5, 390:6, 392:5, 395:14, 412:22, 450:9, 456:14, 482:1, 482:3, 487:13 <u>reasonable</u> [13] - 349:1, 353:13, 359:7, 364:16, 366:1, 379:9, 383:20, 436:17, 465:10, 466:5, 466:6, 482:20, 486:7 <u>reasonably</u> [2] - 348:21, 487:8 <u>reasons</u> [14] - 343:10, 344:8, 346:10, 353:16, 355:13, 356:4, 361:15, 383:11, 401:1, 404:7, 428:24, 442:21, 455:7, 456:10 <u>rebalance</u> [2] - 368:22, 475:13 <u>rebalancing</u> [7] - 360:19, 361:10, 364:20, 366:14, 476:22, 477:4, 482:21 <u>rebate</u> [5] - 388:6, 389:4, 389:10, 389:21 <u>recedes</u> [1] - 370:15 <u>receive</u> [5] - 351:10, 436:1, 460:4, 462:10, 462:12 <u>receiving</u> [1] - 349:23 <u>recent</u> [1] - 470:22 <u>recently</u> [1] - 371:15 <u>recognition</u> [1] - 370:14 <u>recognize</u> [3] - 344:21, 426:7, 468:3 <u>recognized</u> [3] -	341:16, 371:15, 371:17 <u>recognizing</u> [1] - 365:10 <u>recollection</u> [1] - 401:24 <u>recommend</u> [5] - 356:7, 364:17, 428:21, 461:13, 461:14 <u>recommendations</u> [1] - 365:2 <u>recommended</u> [2] - 340:14, 479:21 <u>recommending</u> [3] - 419:22, 428:1, 444:5 <u>reconcile</u> [3] - 376:14, 413:16, 441:17 <u>reconciled</u> [2] - 442:8, 442:11 <u>reconciliation</u> [2] - 444:9, 448:23 <u>reconciling</u> [2] - 442:16, 443:21 <u>record</u> [5] - 398:11, 408:21, 443:22, 443:25, 487:21 <u>RECORD</u> [1] - 374:24 <u>recover</u> [3] - 358:7, 387:23, 450:11 <u>recovered</u> [6] - 372:17, 448:25, 449:13, 449:21, 449:24, 467:14 <u>recovering</u> [1] - 341:10 <u>recovers</u> [2] - 449:17, 450:15 <u>recovery</u> [1] - 360:3 <u>redesign</u> [1] - 447:23 <u>redirect</u> [2] - 488:25, 489:2 <u>reduce</u> [8] - 366:17, 408:17, 475:7, 475:8, 475:12, 476:1, 476:18, 484:22 <u>reduced</u> [7] - 345:23, 370:9, 408:25, 409:2, 425:8, 434:10, 474:14 <u>reducing</u> [4] - 358:25, 406:21, 407:1, 407:5 <u>reduction</u> [6] - 392:7, 409:4, 437:15, 437:24, 474:19, 477:8 <u>reductions</u> [4] - 361:10, 438:6, 457:19, 479:8 <u>refer</u> [5] - 338:8, 411:23, 412:1, 464:25, 470:6 <u>reference</u> [11] - 341:8, 375:6, 388:8, 389:5, 398:23, 408:19, 448:23, 472:18, 481:13, 483:3 <u>referenced</u> [3] - 376:25, 417:7, 431:2 <u>referred</u> [5] - 342:12, 384:8, 394:13, 408:22, 445:16 <u>REFERRED</u> [4] - 451:21, 490:15, 491:16, 492:10 <u>referring</u> [9] - 386:1, 393:6, 423:9, 425:9, 434:1, 434:4, 445:19, 448:21, 478:13
---	--	---	--	--

R

raise [9] - 358:14,
358:19, 358:20,
358:21, 358:23,
358:24, 360:17,
381:7, 438:1
raised [3] - 476:18,
482:9, 482:10
raises [1] - 482:22
ramp [2] - 405:1,
471:11
ramps [1] - 345:15
ran [2] - 435:16,
456:11
range [24] - 339:25,
352:9, 355:9, 355:18,
376:2, 382:2, 383:23,
399:3, 403:18,
427:10, 432:18,
433:7, 434:15, 435:5,
436:17, 455:16,
458:11, 459:16,
459:21, 467:4,
477:21, 478:3, 478:8,
487:24
ranges [4] - 379:2,
381:11, 383:18,
383:19
rarely [1] - 342:2
Rate [1] - 492:8
Rate [4] - 336:8,
452:13, 452:17,
473:12
rate [227] - 338:16,
338:25, 339:7,
341:12, 342:3,
342:14, 342:22,
342:23, 342:24,
343:4, 343:25, 344:4,
344:6, 346:23,
349:23, 350:8,
351:10, 352:24,
353:7, 353:8, 353:9,
354:12, 354:23,
355:4, 355:7, 355:9,
355:11, 355:17,
355:22, 355:23,
356:9, 356:24,
356:25, 357:10,
357:11, 357:12,
357:13, 357:15,
357:16, 357:17,
357:18, 358:6, 358:7,
358:8, 358:20,
359:22, 360:18,
360:21, 360:25,

<p>refine [1] - 383:8 refined [1] - 475:1 refining [2] - 424:20, 427:7 reflect [17] - 356:25, 359:9, 382:14, 418:3, 425:4, 426:23, 429:5, 448:8, 474:9, 478:23, 480:21, 483:13, 483:15, 483:16, 483:25, 484:3, 486:21 reflected [9] - 341:5, 343:5, 372:18, 447:7, 456:13, 476:3, 476:5, 480:3, 486:17 reflecting [2] - 363:15, 463:18 reflection [1] - 447:8 reflects [7] - 360:1, 369:1, 389:20, 445:1, 453:7, 480:5, 480:8 REGARD [1] - 491:2 regard [11] - 342:17, 383:6, 412:4, 445:3, 445:19, 446:18, 446:19, 460:5, 464:22, 470:7, 483:6 regarding [2] - 439:21, 444:18 regardless [2] - 372:19, 425:16 regards [8] - 338:17, 419:9, 432:9, 432:20, 447:14, 448:3, 455:3, 482:24 regime [4] - 373:12, 373:15, 466:13, 469:20 regular [1] - 410:6 regulation [3] - 415:15, 463:16, 479:19 regulatory [2] - 415:24 reiterate [1] - 370:17 relate [2] - 439:10, 477:16 related [19] - 337:25, 376:22, 376:23, 381:3, 381:4, 407:25, 408:8, 409:9, 426:9, 426:10, 449:24, 450:23, 450:24, 451:2, 455:7, 460:1 relates [6] - 394:1, 420:8, 444:17, 465:1, 470:25, 485:8 relating [1] - 449:18 RELATION [1] - 491:20 relation [4] - 448:22, 452:13, 466:8, 474:18 relationship [3] - 417:2, 436:11, 484:19 relative [5] - 385:7, 385:13, 423:21, 444:21, 469:10 relatively [4] - 345:18, 394:8, 427:4, 464:11 relevant [8] - 346:11, 348:11, 379:1, 385:17, 398:16, 399:8, 445:11, 445:13 relieved [1] - 414:4 rely [1] - 351:7 relying [3] - 351:4, 363:7, 384:24 remain [1] - 344:20 remainder [1] -</p>	<p>390:9 remaining [1] - 337:24 remember [4] - 354:17, 389:5, 397:7, 474:14 remind [1] - 397:7 remote [1] - 351:21 remotely [2] - 365:3, 365:14 removal [6] - 350:5, 389:3, 389:20, 437:16, 468:19, 477:10 removed [1] - 350:23 rental [1] - 381:12 renter [1] - 382:5 repeat [1] - 439:16 repeated [1] - 397:14 replace [1] - 373:17 report [3] - 337:24, 340:13, 398:13 reporter [1] - 418:25 Reporter [1] - 337:15 representative [2] - 421:17, 462:13 representing [1] - 376:16 represents [1] - 390:13 require [1] - 452:12 REQUIRED [2] - 441:1, 490:13 required [17] - 342:16, 356:14, 361:14, 365:22, 388:24, 400:5, 400:18, 401:19, 407:24, 425:5, 439:12, 439:22, 440:6, 440:19, 470:10, 484:6, 486:3 requirement [7] - 360:17, 362:2, 369:21, 407:18, 407:25, 421:15, 476:8 requirements [2] - 361:22, 450:17 requires [3] - 428:20, 440:10, 449:3 reread [1] - 393:12 reservoir [1] - 395:22 reservoirs [2] - 395:22, 423:13 reset [1] - 441:8 residential [46] - 342:15, 343:5, 349:17, 351:8, 355:25, 356:14, 356:20, 357:8, 358:23, 364:21, 366:16, 375:15, 422:11, 453:23, 455:14, 455:21, 457:17, 458:14, 458:19, 459:2, 459:4, 459:12, 460:22, 461:1, 462:7, 462:8, 462:14, 463:23, 464:19, 465:14, 467:15, 467:18, 473:24, 474:1, 474:3, 474:21, 474:22, 475:18, 479:10, 479:16, 481:24, 485:10, 485:15, 487:4, 488:7, 488:14 RESIDENTIAL [2] - 491:5, 492:8 residual [2] - 405:10,</p>	<p>433:9 resolving [1] - 384:8 resource [6] - 345:11, 368:6, 370:5, 394:14, 426:13, 466:18 resources [2] - 368:8, 407:12 RESPECT [2] - 491:17, 491:19 respect [21] - 342:3, 342:7, 343:20, 347:10, 348:14, 349:14, 367:20, 370:2, 384:18, 406:20, 406:25, 411:20, 413:1, 415:6, 416:6, 433:14, 446:21, 450:1, 455:24, 461:19, 473:10 respond [4] - 371:12, 380:23, 382:16, 382:17 responding [1] - 393:5 RESPONSE [1] - 491:19 response [26] - 338:8, 338:9, 339:16, 340:6, 341:9, 343:19, 392:20, 393:9, 395:9, 408:12, 408:13, 444:19, 446:1, 455:23, 465:2, 470:7, 478:3, 478:4, 482:25, 483:1, 483:9, 483:24, 484:8, 484:18 responses [1] - 446:8 responsibility [1] - 384:12 rest [1] - 418:12 restate [1] - 361:20 restatement [3] - 442:7, 443:22, 443:24 restores [1] - 444:22 restoring [1] - 473:19 result [9] - 373:19, 373:20, 381:11, 408:14, 415:9, 447:18, 468:2, 476:19, 479:3 resulted [1] - 479:1 resulting [2] - 358:5, 473:25 results [1] - 349:21 resurfaced. [1] - 411:9 retail [13] - 380:4, 413:10, 415:4, 419:17, 419:18, 438:9, 473:15, 473:17, 473:21, 478:23, 479:2, 481:15, 481:22 retaining [1] - 444:25 retains [2] - 449:25, 450:8 return [5] - 410:25, 415:22, 417:9, 488:19, 488:20 returns [1] - 409:10 revelation [1] - 357:2 revenue [15] - 357:23, 360:17, 361:7, 361:22, 362:2, 387:22, 387:24, 388:3, 388:24,</p>	<p>421:15, 433:13, 438:9, 451:6, 474:4, 476:7 revenue-to-cost [1] - 387:22 revenue/cost [1] - 388:2 revenues [2] - 450:3, 451:4 review [2] - 338:6, 466:22 REVIEW [1] - 491:13 reviewed [3] - 370:6, 387:4, 387:11 reviews [1] - 340:5 revised [2] - 470:11, 470:12 Revised [1] - 336:4 revision [1] - 470:14 revisit [1] - 406:17 reword [1] - 354:22 rid [1] - 431:6 RIDER [2] - 440:25, 490:13 rider [2] - 442:25, 444:6 Rider [40] - 359:19, 359:20, 411:5, 412:14, 412:16, 412:23, 412:25, 413:4, 414:16, 414:21, 415:5, 416:1, 418:10, 439:10, 439:12, 439:21, 439:22, 439:24, 440:6, 440:18, 441:9, 441:17, 441:21, 441:24, 442:5, 448:22, 449:19, 451:23, 452:2, 452:3, 452:6, 452:7, 452:11, 452:12, 452:13, 452:14, 454:16, 454:18, 455:1 riders [2] - 409:3, 417:23 risk [9] - 415:2, 415:5, 415:14, 416:6, 417:8, 417:12, 449:25, 450:5, 450:8 road [1] - 487:14 roadmap [3] - 360:24, 361:12 robust [2] - 471:18, 472:9 role [4] - 370:19, 370:24, 370:25, 413:3 rolled [1] - 451:5 room [7] - 382:7, 420:23, 430:25, 448:14, 448:16, 454:3, 477:24 roots [2] - 417:1, 417:16 roughly [1] - 366:11 round [3] - 347:1, 428:18, 465:22 routine [1] - 343:13 row [2] - 431:18, 432:5 Rs [1] - 359:20 rule [1] - 358:21 rules [3] - 419:23, 476:19, 476:25 run [37] - 343:14, 352:24, 353:6, 353:7, 353:9, 354:7, 363:11, 363:22, 374:3, 374:4, 374:10, 387:5, 394:3, 394:19, 395:7,</p>	<p>395:19, 396:17, 407:6, 421:11, 433:4, 443:7, 446:13, 447:12, 450:23, 454:1, 454:10, 454:13, 454:14, 454:16, 454:19, 454:23, 456:11, 458:6, 462:14, 464:8, 467:21, 483:13 run-out [12] - 352:24, 353:7, 387:5, 433:4, 454:1, 454:10, 454:13, 454:14, 454:16, 454:19, 454:23, 462:14 running [9] - 346:3, 354:6, 395:16, 396:7, 405:5, 421:24, 448:24, 449:12 runoff [48] - 338:17, 338:21, 339:7, 341:12, 353:20, 354:12, 355:7, 355:17, 356:9, 356:13, 356:24, 357:10, 357:18, 358:6, 361:6, 362:3, 362:17, 362:21, 363:1, 363:17, 386:2, 419:20, 419:25, 435:8, 446:5, 446:11, 446:12, 446:17, 446:21, 446:23, 447:4, 465:5, 465:9, 465:15, 465:25, 468:18, 473:19, 475:3, 475:4, 476:18, 476:24, 477:3, 478:23, 483:12, 484:13, 484:22, 484:25</p>
S				
<p>S.J [1] - 337:15 sake [1] - 429:8 sales [15] - 371:6, 371:8, 371:11, 398:3, 399:15, 449:23, 451:3, 467:8, 467:11, 467:12, 467:25, 468:2, 469:8, 469:9, 472:16 SAME [1] - 491:23 Saskatchewan [1] - 480:17 sat [3] - 379:23, 409:23, 442:10 satisfied [5] - 343:21, 348:22, 392:19, 393:7, 393:8 satisfies [1] - 442:17 save [8] - 371:19, 373:11, 407:18, 407:23, 427:19, 457:13, 460:4, 460:11 saved [1] - 413:24 saving [4] - 360:14, 373:13, 407:9, 427:22 savings [3] - 372:5, 409:5, 460:12 saw [1] - 376:14 scary [1] - 428:11 scenario [1] - 473:1 scenarios [11] - 472:3 schedule [5] - 407:14, 450:8, 450:9, 454:6, 470:16 Schedule [2] -</p>				

452:14, 452:17 scheduled [3] - 349:10, 349:12, 406:12 se [1] - 452:6 season [1] - 348:14 seasonal [2] - 342:12, 342:16, 342:22, 343:4, 343:15, 344:10, 344:13, 344:15, 344:22, 346:7, 346:15, 393:15, 393:18, 402:17, 405:16, 405:18, 428:5, 429:4, 429:10, 429:18, 430:13 seasonality [3] - 348:10, 395:5, 402:3 seasonally [3] - 343:13, 345:19, 426:8 sec [1] - 452:15 second [30] - 352:2, 352:3, 352:7, 352:24, 353:19, 354:12, 357:19, 357:20, 361:4, 374:6, 374:11, 384:3, 390:20, 420:5, 420:8, 434:12, 434:25, 436:16, 436:20, 438:1, 438:8, 438:21, 438:23, 439:1, 445:18, 456:14, 462:11, 475:3, 476:9 secondary [7] - 371:6, 371:8, 371:11, 398:3, 399:15, 451:3, 472:16 secondly [6] - 346:12, 398:4, 428:13, 433:7, 437:23, 447:8 seconds [1] - 374:22 secret [1] - 437:8 Secretary [1] - 337:9 section [1] - 405:15 Section [1] - 481:16 sector [4] - 356:20, 357:8, 370:15, 488:15 sectors [2] - 370:22, 371:3 SEE [4] - 491:14, 491:21, 491:24, 492:10 see [40] - 350:12, 353:12, 360:3, 362:8, 365:3, 366:2, 373:19, 380:3, 387:16, 387:18, 389:24, 390:5, 390:18, 390:23, 391:20, 397:15, 402:13, 409:10, 416:4, 416:21, 417:2, 417:14, 419:3, 429:20, 429:21, 430:22, 434:25, 436:3, 444:14, 456:2, 460:19, 465:7, 469:18, 476:8, 477:8, 477:10, 479:24, 480:22, 482:10 seeing [6] - 351:7, 354:11, 354:12, 370:17, 414:15, 477:23 seek [2] - 411:24, 450:18 seeking [1] - 395:4	seem [9] - 380:6, 381:22, 397:2, 403:20, 417:3, 430:12, 446:18, 475:5, 487:18 sees [3] - 460:2, 464:19, 464:21 seized [1] - 364:12 seizing [1] - 365:4 sell [3] - 402:21, 403:19, 457:23 selling [1] - 398:3 send [5] - 342:14, 342:17, 353:22, 354:15, 483:6 sending [3] - 371:25, 372:14, 372:16 sends [1] - 372:22 sense [18] - 362:25, 363:7, 374:1, 379:5, 379:7, 397:9, 402:18, 403:14, 430:13, 430:14, 449:8, 453:1, 453:2, 453:11, 453:15, 454:16, 479:19, 479:23 sensitive [1] - 471:16 sensitivity [1] - 433:14 sent [2] - 370:24, 459:18 sentence [1] - 483:11 separate [9] - 367:5, 382:18, 382:23, 412:23, 414:9, 414:15, 420:19, 449:20 separately [1] - 357:7 September [1] - 473:13 September/ October [1] - 470:24 series [2] - 396:19, 439:10 serious [2] - 383:4, 430:22 serve [2] - 369:2, 411:25 SERVED [1] - 491:5 serves [1] - 450:2 Service [1] - 455:15 service [49] - 356:21, 357:6, 364:6, 368:20, 368:21, 369:5, 407:3, 410:7, 411:23, 411:24, 424:20, 424:21, 426:6, 428:7, 453:23, 455:24, 457:3, 457:6, 458:15, 458:20, 459:3, 459:5, 460:21, 461:18, 461:20, 461:23, 462:3, 462:5, 462:16, 463:4, 463:13, 463:21, 463:24, 464:18, 464:21, 470:11, 470:12, 470:15, 471:21, 480:14, 481:21, 487:4, 487:6, 487:19, 488:7, 488:12 SERVICE [2] - 491:5, 492:10 Session [1] - 336:23 set [37] - 344:16, 351:16, 351:23, 352:16, 353:9,	356:13, 357:16, 359:8, 360:23, 362:17, 364:2, 364:3, 365:6, 367:5, 368:12, 378:9, 379:22, 382:19, 384:3, 393:19, 425:3, 428:13, 441:18, 441:20, 442:3, 442:4, 442:11, 442:25, 458:9, 459:21, 460:19, 466:12, 476:25, 478:16, 486:9, 486:22 SETS [1] - 492:9 sets [3] - 344:2, 363:2, 386:21 setting [15] - 352:24, 359:6, 361:11, 366:10, 382:15, 383:5, 384:13, 386:2, 413:8, 424:25, 425:1, 436:2, 463:25, 469:2, 483:3 settled [2] - 417:25, 440:9 settlement [6] - 417:18, 418:3, 418:8, 418:16, 453:7, 453:8 seven [2] - 418:24, 419:2 several [1] - 476:12 severe [2] - 350:24, 385:2 shading [1] - 107:16 shall [1] - 419:18 shape [2] - 343:24, 363:18 shaping [1] - 424:1 share [1] - 359:18 shared [1] - 351:18 shares [1] - 367:20 sharing [1] - 379:24 sharp [1] - 344:5 shifting [1] - 387:22 shop [1] - 463:6 short [7] - 338:22, 340:15, 358:18, 386:3, 386:5, 386:11, 393:10, 406:8, 422:25, 423:6, 448:5, 456:21, 458:10, 467:21, 469:1, 483:13, 484:24 short-run [2] - 467:21, 483:13 short-term [9] - 338:22, 340:15, 358:18, 386:3, 386:5, 386:11, 422:25, 423:6, 469:1 show [7] - 388:9, 408:9, 408:13, 435:2, 444:4, 444:13, 469:7 showing [1] - 461:2 shown [6] - 350:9, 350:18, 354:1, 376:15, 435:2, 436:12 shows [9] - 350:4, 350:20, 351:1, 361:25, 388:17, 435:8, 435:10, 443:7, 445:18 shrinking [1] - 352:25 shrinks [1] - 413:23 shut [2] - 370:10, 407:11 shutdown [1] - 472:16	shutting [1] - 370:8 sic [1] - 368:24 side [9] - 343:11, 359:15, 372:16, 426:13, 454:13, 457:17, 459:12, 462:14 signal [44] - 342:14, 342:17, 342:24, 343:23, 344:3, 344:5, 345:8, 346:18, 346:20, 353:12, 353:22, 354:3, 354:15, 354:24, 355:1, 355:10, 363:3, 363:16, 363:23, 365:14, 365:20, 372:1, 373:7, 373:9, 380:20, 381:10, 381:16, 382:10, 382:12, 383:4, 383:6, 426:10, 427:5, 438:22, 438:25, 445:9, 460:16, 461:6, 463:15, 465:13, 469:13, 470:2, 477:20, 483:7 signals [26] - 354:18, 363:14, 363:15, 364:18, 364:25, 367:21, 372:14, 372:16, 372:22, 380:11, 380:17, 380:23, 382:1, 382:14, 384:17, 438:16, 460:3, 460:14, 463:17, 465:5, 466:12, 473:23, 475:3, 476:24, 477:18, 484:3 significant [2] - 365:14, 446:23 significantly [1] - 474:5 similar [12] - 384:15, 402:18, 403:4, 410:12, 413:7, 451:4, 458:12, 459:13, 459:14, 479:5, 481:1, 481:21 simple [4] - 402:14, 403:16, 404:19, 487:15 simply [14] - 345:20, 356:18, 356:25, 366:10, 381:9, 394:1, 394:7, 395:21, 437:13, 437:24, 450:24, 457:15, 486:4, 486:21 SINGLE [1] - 491:5 sit [2] - 443:13, 488:10 site [1] - 471:3 SITES [1] - 491:5 sitting [3] - 405:5, 468:7, 469:11 situation [14] - 384:14, 395:24, 396:1, 396:2, 396:8, 396:12, 421:23, 425:9, 428:17, 446:12, 449:6, 450:5, 458:16, 487:21 situations [5] - 343:7, 383:9, 396:25, 397:1, 481:1 size [2] - 485:20, 487:7 slam [1] - 417:10	slightly [2] - 377:8, 422:5 slot [1] - 396:17 slow [2] - 412:7, 481:8 small [30] - 348:6, 353:10, 362:24, 377:10, 387:15, 387:17, 394:8, 410:6, 419:14, 421:21, 438:18, 440:11, 441:22, 446:16, 447:10, 457:20, 462:3, 462:5, 463:23, 464:12, 464:18, 464:20, 464:21, 465:17, 465:18, 467:21, 467:22, 480:4, 487:7 smaller [3] - 358:25, 427:12, 464:22 Smart [1] - 337:9 smart [3] - 400:10, 401:8, 401:10 social [1] - 411:24 socially [1] - 416:22 solution [3] - 355:5, 362:9, 449:11 solve [5] - 344:17, 347:5, 418:11, 449:7, 464:3 solving [1] - 488:5 someone [10] - 382:4, 391:20, 404:21, 408:16, 431:21, 432:23, 475:17, 478:9, 480:22, 486:1 somewhat [7] - 338:19, 344:19, 382:3, 422:3, 426:12, 471:8, 484:9 somewhere [8] - 358:21, 386:7, 386:19, 391:21, 399:6, 401:6, 401:17, 425:16 soon [3] - 398:15, 404:23, 405:2 Sorry [1] - 434:1 sorry [2] - 337:22, 350:7, 350:8, 361:20, 373:23, 373:24, 376:10, 387:25, 414:3, 421:4, 432:8, 439:13, 439:25, 459:8, 473:6, 475:13, 478:11, 482:2, 485:12, 485:13, 488:8 sort [32] - 344:20, 350:13, 359:16, 361:11, 368:23, 379:4, 379:8, 382:2, 398:13, 403:18, 403:19, 406:4, 407:3, 407:7, 408:18, 415:23, 420:17, 424:14, 424:24, 425:20, 429:22, 433:6, 433:16, 434:13, 437:14, 438:13, 443:14, 446:22, 446:24, 484:11 sorted [1] - 461:25 sorts [1] - 421:12 sought [1] - 464:23 sound [2] - 357:9, 379:15 sounds [3] - 358:13,
---	--	--	---	---

<p>416:4, 441:16 source [3] - 363:8, 384:20, 422:11 sources [3] - 361:8, 384:15, 422:15 space [1] - 409:17 speaking [5] - 383:13, 385:15, 401:22, 472:20, 484:1 SPECIFIC [1] - 491:18 specific [4] - 408:9, 409:14, 412:22, 483:24 specifically [2] - 381:7, 406:19 specifics [2] - 408:5, 410:11 speed [2] - 374:7, 470:21 speeds [1] - 342:11 spend [1] - 394:10 spending [1] - 415:18 spent [4] - 359:11, 394:13, 415:15, 415:16 spill [1] - 439:20 spilling [1] - 396:21 sporadic [1] - 380:7 spot [1] - 411:21 spring [2] - 343:17, 471:21 stability [10] - 344:4, 344:6, 344:19, 357:24, 367:23, 367:24, 367:25, 368:12, 438:10, 448:18 stable [3] - 368:14, 428:21, 448:14 Staff [1] - 337:9 staff [2] - 411:19, 411:23 Stage [2] - 471:21, 472:18 STAKEHOLDER [1] - 491:18 standard [2] - 391:1, 391:2 standing [1] - 413:3 STANDS [1] - 489:8 start [2] - 337:18, 345:11, 351:24, 355:13, 356:18, 356:24, 362:11, 364:2, 371:17, 375:4, 375:9, 377:12, 392:6, 393:4, 403:18, 410:23, 418:18, 452:9, 460:19, 463:8, 465:25, 466:17 started [5] - 355:11, 356:4, 412:5, 469:19, 470:1 starters [1] - 356:8 starting [6] - 356:3, 402:4, 435:7, 438:23, 473:3, 487:17 starts [8] - 353:6, 374:6, 435:9, 435:10, 438:23, 460:18, 466:11, 478:2 state [2] - 470:8, 478:14 Statement [1] - 490:21 statement [9] - 340:18, 342:12, 344:10, 347:11,</p>	<p>350:19, 374:12, 455:4, 483:22, 488:21 states [5] - 338:14, 423:10, 473:11, 481:16, 483:4 status [1] - 445:1 Statutes [1] - 336:4 stay [3] - 421:11, 448:17, 454:11 staying [1] - 468:9 step [6] - 355:15, 355:20, 366:1, 438:7, 445:20, 466:20 stepped [2] - 413:25, 438:8 stepping [1] - 355:18 steps [3] - 355:15, 368:11, 383:2 Stewart [5] - 471:20, 472:18, 474:10, 476:1, 477:9 stick [1] - 363:20 still [19] - 349:10, 374:7, 384:23, 399:13, 402:18, 405:9, 406:13, 429:15, 438:5, 447:14, 448:21, 455:3, 455:23, 468:19, 470:16, 472:3, 473:2, 473:4, 486:10 stop [6] - 355:12, 356:23, 368:10, 377:12, 398:3, 436:4 storage [9] - 396:2, 396:5, 404:1, 423:18, 423:22, 424:1, 425:15, 426:17, 427:20 store [6] - 377:21, 394:16, 396:22, 396:23, 425:24, 464:11 storing [1] - 403:23 stove [1] - 422:15 strain [1] - 345:11 stretch [1] - 418:23 strict [1] - 478:4 strikes [1] - 379:14 stronger [1] - 445:8 structure [20] - 354:23, 355:4, 355:11, 359:5, 363:25, 390:9, 395:5, 395:9, 405:25, 413:7, 413:8, 413:9, 435:11, 449:9, 464:12, 465:4, 467:8, 469:8, 469:9, 485:9 structures [4] - 383:21, 478:18, 485:14, 487:23 stuck [1] - 355:6 studies [3] - 405:20, 406:3, 426:15 STUDY [2] - 491:3, 491:15 study [6] - 364:6, 368:22, 369:5, 406:4, 408:16, 426:6 stuff [8] - 348:20, 354:6, 371:9, 379:3, 380:8, 402:2, 434:15, 477:24 sub [1] - 462:25 subject [2] - 440:1, 482:3 submission [3] - 418:2, 431:17, 431:18</p>	<p>submissions [1] - 453:24 submit [1] - 339:13 submitted [1] - 436:9 subsequently [1] - 361:5 subsidiaries [1] - 390:4 subsides [1] - 379:2 subsidy [6] - 391:1, 391:5, 391:9, 479:12, 480:12, 480:14 substance [1] - 406:18 substantial [1] - 466:17 substantially [1] - 425:7 substantive [1] - 432:19 suddenly [1] - 454:20 sufficient [1] - 393:14 suggest [3] - 381:8, 424:24, 483:12 suggested [2] - 395:2, 457:5 suggesting [5] - 351:5, 366:7, 475:6, 475:8, 485:6 suggestion [1] - 484:18 SUITE [1] - 491:17 sum [2] - 394:5, 468:5 summarized [1] - 386:10 summary [2] - 429:6, 429:7 summer [31] - 346:22, 396:19, 401:16, 401:17, 402:1, 423:11, 423:14, 423:15, 423:17, 424:4, 424:5, 424:7, 424:21, 425:8, 425:14, 425:16, 425:18, 426:2, 426:3, 426:18, 426:22, 427:13, 427:24, 428:6, 428:15, 429:14, 430:20, 430:22, 456:20, 470:17, 470:20 summers [1] - 432:17 summertime [1] - 471:22 superior [1] - 444:20 supplies [1] - 371:16 supply [19] - 359:9, 359:10, 359:13, 359:17, 371:17, 371:18, 372:18, 382:16, 394:23, 394:25, 405:13, 415:2, 421:9, 430:10, 430:15, 449:25, 451:1, 455:10, 478:24 support [3] - 418:9, 423:3, 454:5 surge [1] - 450:17 surged [1] - 472:16 surplus [18] - 346:18, 347:2, 370:10, 370:14, 371:9, 371:10, 395:24, 397:5, 399:3, 403:21, 428:17,</p>	<p>470:7, 471:4, 471:18, 471:25, 474:11, 484:22 suspect [1] - 488:21 sustained [2] - 343:23, 405:21 swallow [1] - 447:9 switch [3] - 403:19, 403:20, 422:20 sworn [1] - 337:17 system [63] - 342:7, 342:8, 345:11, 345:16, 346:4, 346:16, 350:21, 359:19, 361:2, 361:16, 361:23, 361:24, 363:16, 367:13, 370:14, 372:17, 379:17, 380:4, 382:15, 384:23, 387:15, 388:25, 393:24, 394:4, 394:12, 397:3, 398:7, 398:20, 400:18, 401:3, 401:14, 402:10, 404:3, 404:11, 404:14, 405:5, 407:24, 409:24, 416:23, 420:12, 426:8, 429:19, 431:6, 431:9, 431:11, 445:2, 445:21, 448:9, 448:20, 450:14, 453:6, 453:13, 453:14, 460:9, 466:17, 471:4, 471:15, 471:17, 474:11, 478:22, 484:22, 485:2 system's [2] - 343:15, 425:10 systems [16] - 342:7, 343:12, 346:7, 346:23, 360:13, 385:9, 393:22, 401:2, 401:4, 402:17, 405:11, 405:13, 416:24, 422:10, 462:15, 472:22</p>	<p>388:12, 432:8 tables [1] - 457:25 tackle [1] - 466:11 tackling [1] - 488:3 targeted [2] - 460:16, 460:17 tax [2] - 410:1, 410:5 taxes [1] - 409:3 team [1] - 355:25 technical [5] - 348:1, 371:7, 374:22, 376:3, 400:25 technically [1] - 379:7 technology [1] - 400:14 temporary [3] - 367:13, 367:14, 397:4 ten [10] - 346:17, 346:18, 384:16, 392:13, 393:7, 414:7, 427:5, 429:1, 429:20, 466:19 tenants [1] - 381:12 tend [12] - 345:16, 360:9, 360:18, 360:25, 361:8, 378:20, 399:4, 399:11, 424:19, 426:19, 431:11, 448:16 tendency [4] - 381:2, 381:3, 381:24, 382:17 tending [1] - 396:17 tends [6] - 424:2, 424:3, 436:18, 457:17, 457:20, 459:15 term [37] - 338:22, 340:15, 343:24, 355:5, 356:5, 358:18, 362:9, 386:3, 386:5, 386:11, 397:16, 398:1, 398:21, 398:25, 406:8, 422:25, 423:6, 427:4, 428:23, 430:8, 430:13, 430:15, 432:12, 445:2, 445:8, 456:13, 456:15, 461:13, 465:23, 469:1, 469:4, 473:8, 476:21, 477:6, 484:24, 487:5, 487:16 terminate [4] - 349:10, 349:12, 436:25, 437:2 terminates [3] - 349:18, 349:24, 437:5 termination [2] - 374:13, 437:7 terminations [1] - 477:7 terminology [3] - 473:7, 484:8, 484:17 terms [42] - 341:6, 344:18, 350:21, 352:17, 360:7, 366:4, 367:2, 374:10, 377:4, 379:13, 381:25, 383:5, 390:9, 391:15, 392:19, 393:11, 397:8, 402:22, 402:24, 408:4, 409:17, 416:4, 426:21, 428:11, 431:21, 433:23, 434:14, 434:16, 438:9, 442:22, 447:13, 453:15,</p>
--	---	---	---	---

466:9, 470:20, 476:21, 477:13, 477:14, 479:22, 485:10, 485:14, 488:6, 488:15 Territories [1] - 480:16 territory [7] - 360:10, 366:15, 366:16, 370:13, 371:1, 457:4, 457:6 test [8] - 368:13, 420:7, 442:3, 442:4, 442:12, 456:7, 456:24, 467:11 testified [1] - 355:21 testimony [3] - 339:4, 365:16, 369:14 TEXT [1] - 491:21 THAT [5] - 349:7, 490:10, 491:5, 491:16, 491:21 that's... [1] - 442:18 THE [53] - 336:3, 337:18, 337:21, 338:2, 338:3, 338:10, 338:12, 349:5, 374:20, 374:24, 374:25, 375:2, 406:12, 410:18, 410:22, 411:2, 411:6, 418:18, 419:5, 439:4, 439:8, 440:23, 440:24, 441:1, 451:15, 451:20, 481:3, 481:9, 481:12, 488:18, 489:2, 489:6, 490:12, 490:12, 490:13, 490:15, 491:2, 491:4, 491:13, 491:14, 491:15, 491:17, 491:19, 491:20, 491:22, 491:23, 491:26, 492:8, 492:8, 492:10 themselves [1] - 411:21 theoretically [2] - 423:5, 429:25 theory [2] - 395:5, 405:13 THERE [1] - 491:23 thereabouts [1] - 436:1 thereby [3] - 372:4, 407:12, 478:25 therefore [9] - 415:22, 417:7, 424:11, 428:18, 448:13, 454:15, 468:12, 471:24, 485:25 thermal [2] - 401:2, 405:13 thermal-based [1] - 401:2 THEY [2] - 491:20, 491:21 they've [4] - 371:5, 384:16, 384:25, 410:3 thinking [2] - 341:6, 347:3, 353:4, 353:17, 355:24, 356:5, 394:1, 396:12, 399:18, 407:4, 407:13, 415:19, 417:8, 430:17, 430:18, 432:24, 443:11, 449:6, 453:4, 454:6, 456:25	thinks [3] - 340:23, 418:13, 480:5 third [16] - 341:16, 351:25, 353:6, 353:20, 356:10, 356:15, 357:19, 361:4, 434:11, 447:1, 448:10, 470:13, 470:20, 486:11, 486:12 thoughts [4] - 346:12, 365:6, 437:17, 487:4 thousand [20] - 351:17, 351:18, 352:6, 352:11, 352:14, 353:3, 354:10, 361:25, 374:6, 432:16, 436:14, 436:23, 437:25, 438:4, 460:6, 464:1, 466:14, 467:1, 467:2, 468:24 thousand-kilowatt- hour [1] - 467:1 thousand-page [1] - 464:1 three [14] - 355:20, 355:22, 357:5, 365:9, 389:9, 389:22, 395:6, 403:9, 419:12, 419:21, 419:23, 462:6, 481:11 threshold [2] - 378:16, 462:18 THROUGH [1] - 491:5 throughout [7] - 352:3, 353:7, 400:11, 419:19, 419:24, 420:6, 427:23 throughs [1] - 415:20 tied [2] - 383:10, 387:9 tier [2] - 427:9, 462:11 TIME [2] - 440:24, 490:12 time-of-use [5] - 342:14, 345:1, 393:16, 399:25 timeframe [2] - 467:20, 467:23 timely [1] - 372:12 timing [3] - 447:4, 447:5, 471:16 TO [36] - 349:7, 440:23, 440:25, 451:19, 451:21, 490:10, 490:12, 490:13, 490:14, 490:15, 490:24, 491:2, 491:2, 491:4, 491:5, 491:13, 491:14, 491:15, 491:16, 491:17, 491:17, 491:19, 491:20, 491:22, 491:24, 491:26, 492:8, 492:9, 492:10, 492:10 today [32] - 341:22, 341:23, 360:9, 362:15, 368:16, 369:14, 369:19, 369:20, 380:8, 388:5, 393:22, 408:22, 414:16, 418:3, 422:7, 426:12, 430:5,	444:21, 445:20, 446:2, 446:17, 447:6, 447:9, 448:6, 471:8, 474:13, 474:25, 476:10, 476:14, 480:4, 486:22, 488:6 today's [2] - 368:13, 399:19 toe [1] - 482:16 together [8] - 340:19, 355:23, 366:25, 372:11, 416:11, 418:14, 486:18 tomorrow [1] - 469:24 tonight [1] - 418:20 took [6] - 338:23, 342:23, 391:8, 433:6, 438:2, 487:10 top [3] - 344:23, 386:7, 431:18 topic [2] - 381:19, 463:12 Toronto [4] - 400:9, 400:11, 400:22, 401:15 total [3] - 377:17, 390:14, 468:5 TOU [1] - 400:2 touched [1] - 388:5 toward [2] - 360:2, 487:1 towards [18] - 344:5, 345:7, 346:24, 362:3, 362:12, 363:12, 364:18, 368:1, 368:11, 369:2, 378:20, 445:21, 460:20, 461:14, 463:14, 466:20, 469:3, 485:4 tracking [1] - 378:11 traction [1] - 401:6 transfers [1] - 449:18 transition [2] - 344:17, 346:24, 353:14, 353:15, 354:5, 354:25, 355:12, 357:17, 357:20, 442:22, 446:2, 447:11 transitional [6] - 338:24, 340:22, 362:16, 425:20, 446:19, 446:20 translate [2] - 389:3, 389:21 transmission [3] - 359:15, 359:19, 471:20 treading [1] - 442:9 treat [1] - 464:4 treated [5] - 362:25, 363:13, 458:8, 463:1, 464:24 trend [1] - 378:20 trends [1] - 445:3 trigger [2] - 346:2, 450:10 triggered [1] - 414:8 triggering [1] - 450:7 triple [1] - 447:22 trouble [5] - 383:4, 389:6, 411:22, 428:19, 457:14 true [10] - 409:11, 409:12, 423:12, 425:10, 426:12, 428:16, 429:3, 429:17	trueing [1] - 442:17 trueing-up [1] - 442:17 try [19] - 376:14, 383:8, 398:11, 402:13, 406:17, 412:13, 413:6, 417:14, 426:5, 430:2, 440:2, 440:7, 440:9, 442:7, 449:5, 461:24, 463:9, 477:13, 486:8 trying [23] - 346:23, 353:5, 360:13, 366:25, 380:7, 384:7, 393:21, 397:2, 398:1, 416:9, 416:10, 427:4, 428:22, 430:2, 463:6, 463:13, 464:14, 468:7, 482:13, 482:16, 483:18, 483:20, 487:14 turbine [3] - 399:3, 470:13, 470:20 turbines [2] - 394:2, 394:5 turn [10] - 349:13, 373:10, 382:6, 386:20, 394:6, 404:21, 419:4, 457:18, 457:19, 483:2 turnaround [1] - 459:15 turning [3] - 421:10, 436:5, 436:19 turns [1] - 436:16 twice [1] - 480:5 two [48] - 341:16, 341:19, 343:10, 344:8, 346:17, 350:10, 350:11, 351:16, 352:22, 355:15, 361:16, 363:1, 367:12, 368:8, 373:5, 374:5, 374:22, 382:8, 395:6, 397:11, 402:15, 413:12, 413:16, 414:10, 416:9, 417:19, 417:25, 419:13, 424:15, 437:13, 438:3, 440:3, 446:9, 446:10, 455:7, 456:10, 456:21, 456:22, 464:23, 471:11, 471:23, 474:6, 480:17, 485:8, 486:4, 486:17, 487:23 two-block [1] - 413:12 type [54] - 341:5, 342:23, 343:20, 343:21, 345:2, 345:5, 352:20, 353:4, 355:11, 356:5, 358:12, 374:5, 381:22, 383:12, 385:16, 394:1, 396:4, 396:12, 397:6, 398:22, 399:4, 402:5, 403:20, 406:2, 407:13, 409:6, 410:11, 416:2, 416:25, 422:6, 424:19, 425:9, 425:18, 426:9, 427:1, 435:4, 436:12, 437:11, 453:3, 466:12, 466:16, 466:18, 466:19, 467:20, 467:23,	470:2, 480:1, 480:17, 482:23, 484:19, 485:3, 485:4 types [12] - 347:3, 353:15, 362:10, 382:5, 401:5, 420:25, 421:1, 435:17, 454:7, 468:1 typically [3] - 342:9, 380:3, 465:8 typo [1] - 435:9 <hr/> U UCG [2] - 374:25, 491:16 UCG-1-9 [1] - 483:24 UCG-9(a) [2] - 482:25, 483:9 ultimate [1] - 396:3 ultimately [8] - 367:7, 368:14, 368:15, 464:14, 474:13, 476:11, 483:15, 483:16 unable [2] - 383:3, 383:11 under [62] - 340:12, 349:17, 350:15, 356:24, 357:13, 360:19, 361:9, 361:18, 361:19, 362:4, 362:5, 362:6, 362:12, 373:12, 387:21, 387:24, 387:25, 388:7, 388:19, 388:20, 388:21, 389:1, 390:12, 391:10, 392:3, 392:6, 392:7, 397:15, 409:1, 409:4, 409:11, 409:12, 414:23, 417:7, 431:1, 431:19, 432:16, 434:6, 435:3, 435:24, 435:25, 436:21, 436:23, 437:3, 445:6, 456:15, 457:15, 458:11, 458:12, 459:21, 460:9, 468:24, 473:1, 479:3, 485:16, 485:23 underline [2] - 372:15, 373:3 underlying [17] - 343:25, 345:8, 359:25, 367:11, 382:14, 390:14, 396:11, 401:3, 401:8, 426:9, 447:17, 448:13, 448:19, 477:19, 478:21, 484:10, 485:5 understood [8] - 340:3, 343:3, 353:18, 357:4, 362:7, 369:4, 372:8, 433:13 undertaken [1] - 406:4 undertaking [9] - 347:9, 349:3, 375:5, 376:9, 392:21, 392:23, 414:4, 440:17, 451:15 UNDERTAKING [18] - 349:7, 440:23, 451:19, 490:10, 490:12, 490:14, 490:25, 490:26, 491:2, 491:4, 491:13,
---	--	--	---	--

<p>491:15, 491:17, 491:19, 491:22, 491:26, 492:8, 492:9 UNDERTAKINGS [4] - 490:9, 491:1, 491:12, 492:7 undertakings [3] - 337:24, 337:25, 490:19 undertook [1] - 451:18 underway [1] - 369:15 undue [3] - 366:22, 479:20, 480:23 unfair [1] - 362:22 unfold [1] - 477:13 unfortunately [2] - 426:19, 441:13 unique [1] - 378:11 unit [1] - 421:9 units [1] - 465:8 universal [2] - 381:24, 382:6 unless [4] - 337:21, 428:14, 428:22, 453:25 unlike [1] - 401:1 unlimited [1] - 418:5 unplugged [1] - 374:23 unworkable [1] - 344:21 up [68] - 338:1, 345:8, 345:15, 351:17, 355:10, 355:23, 356:1, 357:23, 359:11, 360:18, 360:20, 361:17, 362:3, 367:12, 377:23, 378:3, 382:17, 383:14, 386:23, 387:5, 387:6, 387:8, 389:11, 391:15, 393:16, 394:23, 397:10, 401:19, 402:3, 404:5, 404:7, 405:1, 405:6, 412:15, 419:7, 421:12, 421:22, 423:13, 426:25, 427:9, 435:20, 437:9, 442:17, 446:7, 446:23, 461:10, 462:2, 462:4, 462:22, 466:1, 466:25, 467:3, 468:10, 469:12, 469:21, 469:22, 470:21, 471:11, 471:12, 472:6, 475:8, 477:24, 480:11, 482:6, 484:15, 486:16, 486:18, 488:11 UP [1] - 491:20 updated [1] - 412:6 upper [3] - 439:11, 439:21, 439:24 upward [1] - 361:2 upwards [1] - 356:23 usage [3] - 351:18, 460:14, 477:24 useful [1] - 467:16 user [1] - 469:17 users [8] - 352:21, 358:25, 359:1, 380:3, 455:13, 468:21, 469:20, 487:20 uses [2] - 410:2,</p>	<p>477:19 usher [1] - 448:18 usual [1] - 380:7 Utilities [4] - 336:3, 337:1, 337:13, 439:7 utilities [20] - 338:23, 344:9, 344:21, 369:17, 369:19, 370:19, 381:14, 401:7, 406:3, 408:8, 409:22, 413:16, 414:10, 416:9, 432:11, 434:19, 440:3, 442:10, 442:15, 458:9 utility [11] - 370:19, 371:24, 373:1, 379:24, 384:11, 385:4, 415:15, 438:9, 451:1, 458:2 utility's [2] - 415:22, 458:7 utility-data-sharing [1] - 379:24 utility-led [2] - 373:1</p> <p style="text-align:center">V</p> <p>vacation [1] - 470:18 valid [1] - 371:18 value [7] - 386:22, 387:6, 387:10, 390:12, 391:12, 391:18, 486:13 values [3] - 376:1, 387:13, 389:21 variance [2] - 415:6, 454:25 variation [17] - 415:9, 415:13, 415:14, 415:17, 416:6, 416:18, 417:12, 429:4, 429:10, 429:13, 429:18, 433:5, 435:12, 450:1, 450:4, 450:12 variations [1] - 415:19 varied [1] - 414:25 varies [5] - 376:11, 376:12, 376:13, 415:1, 415:4 variety [1] - 380:23 various [8] - 369:16, 379:2, 384:11, 392:13, 432:11, 445:13, 446:8, 468:25 vary [3] - 356:25, 365:24, 376:10 varying [1] - 400:3 vast [6] - 340:11, 361:24, 384:23, 388:23, 468:14, 479:7 versa [1] - 345:15 version [1] - 375:11 versus [24] - 347:18, 353:15, 357:22, 362:4, 362:20, 378:23, 390:13, 400:4, 406:23, 407:4, 413:16, 420:15, 426:2, 426:3, 428:1, 428:6, 430:20, 441:18, 446:25, 458:4, 458:7, 485:19, 488:7 via [1] - 426:6 viability [1] - 428:1 vice [1] - 345:15</p>	<p>view [17] - 340:8, 340:21, 357:4, 364:25, 365:1, 371:24, 395:2, 415:13, 433:20, 434:23, 434:24, 447:16, 448:2, 451:22, 455:8, 479:20, 486:23 viewed [3] - 382:3, 455:12, 477:5 views [3] - 433:15, 444:20, 446:9 virtually [2] - 346:19, 371:10 visited [1] - 400:22 volume [2] - 418:6, 418:7 VOLUME [6] - 490:3, 490:16, 490:25, 490:26, 491:6, 492:1 Volume [2] - 336:22, 337:4</p> <p style="text-align:center">W</p> <p>WAF [20] - 342:7, 342:8, 346:16, 353:17, 363:13, 363:15, 363:16, 380:3, 384:23, 387:15, 398:6, 413:19, 420:12, 421:19, 421:20, 441:23, 453:6, 453:13, 472:21, 484:14 WAF-Mayo [1] - 363:16 WAF/Mayo [1] - 398:16 wait [2] - 364:7, 364:24 waiting [1] - 445:24 walks [2] - 448:13, 448:15 Ward [1] - 337:10 warmed [1] - 421:11 warn [1] - 430:16 wasting [1] - 396:20 water [55] - 345:12, 345:18, 345:21, 345:23, 345:24, 346:1, 394:7, 394:16, 394:17, 394:23, 395:17, 395:21, 395:24, 395:25, 396:4, 396:20, 396:21, 397:10, 398:2, 399:12, 399:13, 399:14, 399:16, 399:21, 403:23, 404:1, 405:4, 405:7, 405:8, 405:12, 423:12, 423:15, 423:16, 423:18, 423:21, 423:22, 423:25, 424:1, 424:2, 424:7, 425:13, 425:14, 425:24, 429:14, 429:15, 431:13, 442:9, 451:5, 456:16, 473:5, 473:6, 473:7, 482:16 Water [1] - 472:12 water's [1] - 405:9 waterbed [2] - 358:9, 358:13 Watson [12] - 353:10, 362:9, 363:8,</p>	<p>363:9, 363:12, 363:16, 363:23, 365:12, 420:11, 441:22, 454:22, 454:23 wavelength [2] - 390:17, 392:8 ways [3] - 371:19, 407:23, 424:15 wealth [2] - 381:4, 383:10 website [1] - 412:6 weekly [1] - 412:7 WERE [9] - 440:24, 440:25, 441:1, 490:12, 490:13, 491:20, 491:21 WHAT [3] - 440:23, 490:12, 491:17 wheels [1] - 394:3 WHERE [1] - 491:23 whereas [1] - 469:14 WHETHER [3] - 491:4, 491:22, 491:24 WHICH [1] - 492:9 Whitehorse [8] - 337:2, 337:14, 362:20, 396:20, 396:21, 423:9, 480:12, 488:22 Whitehorse's [1] - 363:10 whole [7] - 353:17, 379:16, 398:4, 403:11, 426:14, 428:20, 476:23 wholesale [6] - 413:6, 413:7, 413:11, 414:2, 449:23, 464:5 wide [4] - 353:5, 368:25, 380:23, 469:11 wildly [2] - 376:10 willingness [1] - 380:16 window [1] - 430:3 winter [36] - 346:22, 395:25, 396:3, 396:18, 401:16, 402:19, 407:6, 407:19, 412:5, 423:11, 423:14, 423:23, 424:2, 424:11, 424:13, 424:22, 425:7, 425:13, 425:16, 425:17, 425:25, 426:2, 426:3, 426:16, 426:19, 426:21, 427:12, 428:5, 428:15, 429:14, 430:11, 430:20, 430:22, 432:16, 456:20, 471:19 Winter [1] - 423:10 winter/summer [1] - 471:16 wintertime [2] - 424:8, 427:21 wisdom [2] - 360:8, 464:13 wish [1] - 375:1 WITH [4] - 491:2, 491:17, 491:18, 491:19 wondered [3] - 363:24, 437:3, 437:5 wondering [10] - 347:8, 347:15, 349:13, 364:7, 369:7,</p>	<p>400:12, 419:10, 423:12, 430:25, 432:23 wood [3] - 422:15, 422:21 Woodland [1] - 337:7 word [3] - 452:23, 453:1, 454:4 wording [5] - 419:16, 419:20, 452:17, 452:20, 454:6 words [8] - 340:14, 382:22, 417:24, 418:1, 418:2, 453:19, 453:20, 453:23 works [1] - 414:1 world [5] - 367:11, 367:12, 371:8, 399:2, 448:9 worried [1] - 416:18 worrying [1] - 397:9 worse [2] - 360:14, 363:21 worst [1] - 403:3 worth [4] - 346:22, 397:2, 415:18, 430:2 wrap [1] - 405:15 wrestle [8] - 367:10, 367:18, 368:15, 427:8, 427:10, 448:7, 464:15, 466:17 wrestled [2] - 358:1, 406:2 wrestling [1] - 365:8 writing [1] - 340:5 written [4] - 368:20, 418:2, 440:14, 465:21</p> <p style="text-align:center">Y</p> <p>y' [1] - 378:23 year [24] - 342:20, 347:1, 349:10, 375:25, 376:2, 378:17, 378:18, 394:3, 412:5, 421:16, 425:14, 427:23, 428:18, 429:22, 430:6, 432:18, 442:12, 455:22, 456:25, 459:18, 467:11, 471:12, 471:14, 472:5 years [32] - 346:17, 346:18, 354:8, 365:15, 367:11, 368:9, 378:25, 384:16, 395:20, 397:19, 397:22, 399:19, 414:7, 414:8, 429:1, 429:20, 440:12, 440:19, 441:3, 441:21, 442:3, 442:4, 445:22, 447:21, 448:10, 452:9, 471:12, 473:9, 480:21 YEARS [2] - 441:1, 490:13 YEC [36] - 337:17, 338:14, 340:8, 341:25, 347:10, 355:23, 374:23, 383:2, 408:9, 409:21, 411:13, 412:19, 412:24, 413:19, 420:9, 444:20, 449:15, 449:17, 449:25, 450:2, 450:8,</p>
--	--	--	--	--

<p> <u>450:10, 450:14,</u> <u>450:17, 450:22,</u> <u>451:25, 452:19,</u> <u>457:3, 457:10,</u> <u>457:22, 458:10,</u> <u>467:7, 470:3, 470:25,</u> <u>483:16, 490:20</u> YEC's ^[22] - 338:8, <u>341:10, 341:12,</u> <u>341:13, 341:15,</u> <u>341:16, 349:9,</u> <u>349:18, 412:17,</u> <u>413:19, 415:1,</u> <u>442:13, 448:2, 449:4,</u> <u>449:20, 449:23,</u> <u>450:5, 451:4, 451:6,</u> <u>456:5, 457:15, 460:23</u> YEC/YECL ^[5] - <u>490:17, 491:8,</u> <u>491:20, 491:25, 492:2</u> YECL ^[22] - 337:25, <u>355:22, 409:19,</u> <u>409:21, 412:23,</u> <u>414:16, 414:25,</u> <u>442:20, 442:23,</u> <u>443:5, 444:3, 449:18,</u> <u>452:16, 455:7,</u> <u>455:12, 457:6,</u> <u>458:12, 461:24,</u> <u>483:1, 483:9, 488:10,</u> <u>488:20</u> YECL's ^[5] - 413:19, <u>413:21, 415:4,</u> <u>441:21, 449:15</u> YECL-related ^[1] - <u>337:25</u> YECL's ^[1] - 455:5 YEC's ^[1] - 447:16 yesterday ^[4] - <u>376:17, 376:25,</u> <u>387:8, 389:11</u> yourself ^[1] - 431:4 YUB ^[3] - 399:23, <u>412:15, 491:14</u> YUB-12(a) ^[1] - <u>464:25</u> YUB-15 ^[1] - 470:6 YUB-19 ^[1] - 417:7 YUKON ^[2] - 491:18, <u>491:24</u> Yukon ^[74] - 336:4, <u>336:7, 337:1, 337:2,</u> <u>337:11, 337:12,</u> <u>352:3, 353:5, 353:7,</u> <u>353:17, 354:16,</u> <u>356:25, 361:18,</u> <u>365:1, 365:21,</u> <u>366:18, 367:4,</u> <u>367:20, 368:8,</u> <u>368:25, 369:3,</u> <u>371:15, 372:21,</u> <u>373:4, 379:21,</u> <u>379:22, 380:4, 393:9,</u> <u>402:7, 402:17,</u> <u>402:21, 403:16,</u> <u>408:10, 411:19,</u> <u>412:12, 413:2, 413:7,</u> <u>413:9, 415:13,</u> <u>415:17, 417:13,</u> <u>419:19, 419:25,</u> <u>420:6, 423:9, 426:14,</u> <u>430:18, 432:20,</u> <u>439:6, 441:22, 442:1,</u> <u>445:6, 447:20,</u> <u>447:23, 455:5,</u> <u>455:19, 458:8,</u> <u>459:18, 459:20,</u> <u>461:22, 462:24,</u> <u>463:22, 466:25,</u> <u>470:9, 473:12,</u> </p>	<p> <u>473:15, 473:17,</u> <u>474:7, 474:24,</u> <u>478:20, 479:23, 480:3</u> YUKON-SPECIFIC ^[1] - 491:18 Yukon-wide ^[1] - <u>368:25</u> </p> <p style="text-align: center;">Z</p> <p> zero ^[2] - 442:25, <u>484:23</u> zone ^[6] - 348:1, <u>386:11, 419:13,</u> <u>420:3, 453:24, 484:14</u> zones ^[3] - 419:14, <u>445:12, 445:14</u> </p>
--	---