

Page 1

1 OCTOBER 1, 2015
 2 (9:07 a.m.)
 3 CHAIRMAN:
 4 Q. Good morning, everybody. We're ready to go.
 5 I think there's - madam, you have one
 6 undertaking?
 7 MS. PENNELL:
 8 Q. We have Undertaking 42, which is how much of
 9 the increase in return on rate base for
 10 Labrador interconnected system can be
 11 attributed to the Labrador City distribution
 12 upgrade.
 13 CHAIRMAN:
 14 Q. Okay. I think Mr. Johnson, we are back to you
 15 for your continuation.
 16 MR. PATRICK BOWMAN - CROSS-EXAMINATION BY JOHNSON, Q.C. -
 17 (CONT'D)
 18 JOHNSON, Q.C.:
 19 Q. Good morning, Mr. Bowman.
 20 MR. PATRICK BOWMAN:
 21 A. Good morning.
 22 JOHNSON, Q.C.:
 23 Q. Mr. Bowman, as you know, just to follow up on
 24 the discussion we were having yesterday, it's
 25 been quite a while since Hydro was before the

Page 2

1 Board for their GRA. The last GRA, I think
 2 you'll recall, was filed in 2006, right?
 3 MR. PATRICK BOWMAN:
 4 A. Yes.
 5 JOHNSON, Q.C.:
 6 Q. And I think you would have been involved in
 7 that one personally, as I recall?
 8 MR. PATRICK BOWMAN:
 9 A. Yes.
 10 JOHNSON, Q.C.:
 11 Q. And, I guess, Mr. Bowman, would I - could I
 12 get your thoughts on the desirability of Hydro
 13 being out so long, as we've seen, it went from
 14 '06 to their original filing in 2013?
 15 MR. PATRICK BOWMAN:
 16 A. Well, as I mentioned, I do work with both
 17 utilities and customer groups, and sometimes
 18 the views are different on this matter, but in
 19 my experience, if rates can be set in a
 20 hearing and they can remain reasonable and
 21 representative of the system for an extended
 22 period, there may be no reason to have the
 23 cost and trouble of a hearing. Where you get
 24 concerned is if you have fairly major changes
 25 going on in the system, things like loads or

Page 3

1 plant and the like, and the utility being away
 2 for a long time. Either of those conditions,
 3 though, we're almost nine years now which is
 4 definitely long for most utilities I'd ever
 5 dealt with, and it does cause certain problems
 6 being away that long, but I think it's
 7 particularly in this case where you had fairly
 8 major changes going on in things like loads,
 9 you would have seen some benefits from not
 10 leaving it nine years.
 11 JOHNSON, Q.C.:
 12 Q. So you - obviously, I guess, it goes without
 13 saying that the longer you leave it, there's
 14 issues that build up, there's changes in
 15 loads, there's operating costs performance
 16 that's not being examined, as we've seen in
 17 this case, because I take it you'd be familiar
 18 with the operating witnesses who have been
 19 called in terms of the increases in operating
 20 costs, right?
 21 MR. PATRICK BOWMAN:
 22 A. I'm generally familiar, but I reviewed the
 23 sections of the GRA and generally followed it,
 24 but as I mentioned, revenue requirement wasn't
 25 our core focus, but the same issues arise in

Page 4

1 respect to loads and cost of service.
 2 JOHNSON, Q.C.:
 3 Q. And as well, this has been some time since the
 4 new governance model has been put in place at
 5 Nalcor, and this is the first time that
 6 anybody has had a chance to really examine it,
 7 right?
 8 MR. PATRICK BOWMAN:
 9 A. That part I can't comment on, I'm sorry.
 10 JOHNSON, Q.C.:
 11 Q. Okay, you haven't been following the evidence
 12 on that?
 13 MR. PATRICK BOWMAN:
 14 A. I haven't been involved in looking at Nalcor
 15 allocations.
 16 JOHNSON, Q.C.:
 17 Q. Okay. Yesterday you spoke in relation to the
 18 energy supply cost deferral account, and you
 19 said that the ability to put this off, as you
 20 put it, and put it into something that
 21 stabilizes it and saves us all a lot of time
 22 and fuss has some appeal. Do you recall that
 23 statement?
 24 MR. PATRICK BOWMAN:
 25 A. Yes.

Page 5

1 JOHNSON, Q.C.:

2 Q. Could I get you to reflect upon the words of

3 Dr. Wilson for a moment by directing your

4 attention to page 39 of his report. Dr.

5 Wilson talks about the shifting of business

6 risk, and in particular, he says half way down

7 through that paragraph, "While adopting the

8 proposed energy supply cost variance deferral

9 to recognize cost changes from energy supply

10 variation may be viewed as a reasonable

11 extension of the cost of service adjustment

12 process. It is the kind of automatic rate

13 adjustment expansion that can be expected to

14 shift normal business risk to consumers and

15 further minimize the normal periodic

16 review/cost imbalances that give rise to the

17 need for GRA filings".

18 MR. PATRICK BOWMAN:

19 A. Yes, I see that.

20 JOHNSON, Q.C.:

21 Q. Yeah, and would you agree with Dr. Wilson's

22 observation that setting up an account like

23 this does, in essence, make it easier for

24 Hydro to delay general rate applications and

25 examination of issues that might build up?

Page 6

1 MR. PATRICK BOWMAN:

2 A. Yes.

3 JOHNSON, Q.C.:

4 Q. Mr. Bowman, are you familiar with a case of a

5 utility losing a deferral account once they

6 have it in place?

7 MR. PATRICK BOWMAN:

8 A. I can't think of one that comes to mind.

9 JOHNSON, Q.C.:

10 Q. Mr. Bowman, good forecasting, that's at the

11 heart of running a utility operation, I take

12 it, would you agree with me?

13 MR. PATRICK BOWMAN:

14 A. Yes.

15 JOHNSON, Q.C.:

16 Q. And would you agree with me that we ought to

17 be very careful about removing the financial

18 incentive on the part of Hydro to make good

19 forecasts?

20 MR. PATRICK BOWMAN:

21 A. Yes.

22 JOHNSON, Q.C.:

23 Q. And would you agree with me that the energy

24 supply cost deferral account would, in fact,

25 remove an incentive on Hydro in that regard

Page 7

1 from a financial point of view?

2 MR. PATRICK BOWMAN:

3 A. Not necessarily, and perhaps it would help if

4 I could explain that.

5 JOHNSON, Q.C.:

6 Q. Certainly.

7 (9:15 a.m.)

8 MR. PATRICK BOWMAN:

9 A. Yesterday we went through a bit of discussion

10 on this issue of stabilizing in regards to

11 Holyrood efficiency, and this is a similar

12 example, and reviewing the transcript, I

13 realized it may have been a little less clear

14 than I might have hoped, so I just wanted to

15 touch on there are two different concepts that

16 we're a bit mixing up here. One is a feature

17 that's a stabilization type of mechanism, and

18 one is a deferral type of mechanism. A

19 deferral is broader and might just relate to

20 things that you push into the future,

21 something like - I think there's still an old

22 exchange deferral account here that was

23 designed for rate stability reasons just to be

24 pushed off into the future. Stabilization is

25 a bit different and some of these things we're

Page 8

1 talking about here relate more to a

2 stabilization account, and a bit of the reason

3 my responses were muddled is because we sort

4 of came at it from a bit of a backwards

5 approach, and I think you may have to in this

6 hearing because what you'd normally do is try

7 to figure out what is the rate mechanism for

8 setting up rates, and then given that rate

9 mechanism, you'd look at the utility's risk

10 and figure out what return they might earn. In

11 this case, we don't get to do it in that order

12 because that last item is fixed on us and

13 we're kind of going backwards and saying given

14 that they've got this return, now let's try to

15 figure out the rate mechanisms that make the

16 risk appropriate for that return with that

17 being an unusual test. The usual test is what

18 are the rate mechanisms to give the outcomes

19 that you need for rate payers, and in that

20 context the option of doing stabilization on

21 certain variables is a fairly common utility

22 regulatory practice as long as the variables

23 you're talking about meet certain tests. This

24 is my summary of it, but those tests should be

25 the item you're dealing with is material, you

Page 9

1 wouldn't bother to go through this fuss if
 2 it's not material, and it should be highly
 3 variable in a single year, and there should be
 4 things under which the utility basically
 5 doesn't have any or very, very limited
 6 control. If it doesn't meet those tests, you
 7 want to be very careful about stabilizing;
 8 otherwise, all you're doing is transferring
 9 risk, you're not necessarily giving benefits
 10 to rate payers. If it has those
 11 characteristics, though, it can make sense to
 12 have a stabilization account and then deal
 13 with the risks accordingly, and I'd also say
 14 that as you go down that road, there should be
 15 relatively limited number of items. If this
 16 becomes a long list, pretty soon the utility
 17 is - there's no reason if the return on ROE
 18 has got very little risk left with it, it's
 19 just operating in a different framework than
 20 any other type of utilities that they'd be
 21 trying to be compared to. For that reason, we
 22 said in regards to the energy supply cost,
 23 ignoring the ROE question for a moment because
 24 in the traditional thinking that comes later,
 25 you would say the energy supply cost volume

Page 10

1 proposal meets those tests, and the amount of
 2 energy Hydro might get from wind or might get
 3 from Exploits could be variable, could be
 4 variable within a year, it might rain, it
 5 might not, Exploits may put out a different
 6 amount of power, and it could vary within the
 7 year and it's not only a question of
 8 forecasting, and the utility has very little
 9 ability to control that. So it meets all
 10 those tests.
 11 JOHNSON, Q.C.:
 12 Q. But if it met that test, you would expect to
 13 see a commensurate or an associated reflection
 14 of that in the utility's ROE, wouldn't you?
 15 MR. PATRICK BOWMAN:
 16 A. Yes.
 17 JOHNSON, Q.C.:
 18 Q. Okay, and just to go back, you seem to draw a
 19 distinction between the stabilization account
 20 and, for instance, we have an RSP, that
 21 stabilization is in the word of the rate
 22 stabilization plan, but you call it
 23 stabilization, but the RSP is a deferral
 24 account, right? I mean, there's no question
 25 about that.

Page 11

1 MR. PATRICK BOWMAN:
 2 A. Well, the RSP has a number of different
 3 components. There was certainly a time when
 4 the RSP was playing a massive deferral role.
 5 When I came here in 2001, the RSP was in a
 6 massive deficit because fuel prices had gone
 7 up and there hadn't been enough of an
 8 attention, enough of a mechanism to catch up
 9 with that, and so it had this huge, to my
 10 recollection, it was greater than 100 million
 11 dollar balance that people had to figure out
 12 how to deal with. That was one of the huge
 13 items in the 2001 GRA. There were fairly
 14 substantial changes made to the RSP in 2003,
 15 which was a negotiated part of that hearing,
 16 that was designed to keep the stabilization
 17 mechanisms, but reduce the extent to which you
 18 have this deferral of items that don't
 19 properly meet the test of deferral, they just
 20 let you dig a hole. So something like fuel is
 21 now passed through one year later; is that a
 22 deferral, yes, but it used to be three, four,
 23 five years later or even a rolling balance.
 24 Sometimes fuel would still be in there for a
 25 very long time. There is a deferral aspect.

Page 12

1 There's naturally going to be some deferral
 2 aspect, but you want to keep that to a
 3 minimum.
 4 JOHNSON, Q.C.:
 5 Q. So as the RSP is constructed today, Mr.
 6 Bowman, would you consider the deferral
 7 account?
 8 MR. PATRICK BOWMAN:
 9 A. The term is used different ways by different
 10 professions. To the accountant, it's a
 11 deferral account because rather than
 12 recognizing immediate cost in the current
 13 financial statements, you put them somewhere
 14 that they may be recognized at a later period.
 15 I would say the fuel portion is serving
 16 somewhat of a deferral account because it
 17 occurs one year later, but that's sort of a
 18 necessary function of it. The hydraulic is, I
 19 would say, not serving as a deferral account
 20 because it's meant to be naturally internally
 21 balancing. It's meant to say that rates every
 22 year can be set based on normal water and the
 23 good years can balance off the low years, and
 24 as a result, it should sort of internally
 25 solve itself. Now we carve a little bit out

Page 13

1 every year just to help keep it in line, but
 2 the idea is that that would be causing a
 3 stabilization type of mechanism.
 4 JOHNSON, Q.C.:
 5 Q. Okay. I want to turn the page for a second
 6 and talk regarding the issue that took up a
 7 bit of time yesterday having to do with the
 8 2015 load and the cost of service, and as you
 9 were discussing yesterday, Mr. Bowman, in your
 10 April 2014 report, you had recommended that
 11 the cost of service that Hydro had put forward
 12 be adjusted to normalize the annual loads of
 13 Vale and Praxair, and I understand that that
 14 was something that you specifically sought on
 15 behalf of the industrial customers and you
 16 were given a model by Hydro that you thought
 17 was reasonable in response to IC-140, is that
 18 correct?
 19 MR. PATRICK BOWMAN:
 20 A. Yes.
 21 JOHNSON, Q.C.:
 22 Q. And you termed the approach set out in IC-140
 23 as the most reasonable cost allocation
 24 approach, didn't you?
 25 MR. PATRICK BOWMAN:

Page 14

1 A. It's possible. That sounds like a term I
 2 might have used.
 3 JOHNSON, Q.C.:
 4 Q. And if we could turn up your April 2014
 5 report, just to get some clarity on this point
 6 before going further, page 29, starting at
 7 line 34. Line 34 says, "The most reasonable
 8 cost allocation approach available is set out
 9 in IC-NLH-140, with further adjustments to
 10 also reflect weather normalized February
 11 coincident peak allocation". So that's what I
 12 was referring to. You thought that was the
 13 most reasonable cost allocation approach?
 14 MR. PATRICK BOWMAN:
 15 A. Yes, given the facts that were there.
 16 JOHNSON, Q.C.:
 17 Q. Sure.
 18 MR. PATRICK BOWMAN:
 19 A. A little bit up that page, I walked through
 20 sort of four options of how to deal with it,
 21 and if you don't mind, yesterday I quoted a
 22 number off this page, I just didn't have the
 23 page in front of me, but you'll notice that
 24 option 1, line 13, was to say - remember at
 25 that time the demand charge approach for

Page 15

1 industrials was \$9.13, was to say split these
 2 two classes. One is operating industrials and
 3 one is a ramping up industrials, and were you
 4 to do that, the operating industrials would
 5 have an \$8.11, that was the number that I was
 6 trying to quote yesterday, but I didn't have
 7 it on the top of my head, \$8.11 demand charge
 8 and the ramping up customers would have
 9 \$15.00. If you're only doing a proper cost
 10 allocation in that cost of service, ignoring
 11 some of the facts of the situation, that would
 12 be probably the proper way to deal with it,
 13 but it ignored the facts that Vale has these
 14 orders that say it shouldn't pay for power
 15 before it uses it.
 16 JOHNSON, Q.C.:
 17 Q. Right, but, I guess, the bottom line, though,
 18 is that you satisfied yourself that the most
 19 reasonable cost allocation method was what
 20 Hydro provided for you in response to IC-140?
 21 MR. PATRICK BOWMAN:
 22 A. Yes.
 23 JOHNSON, Q.C.:
 24 Q. Now what did Hydro do to the cost of service
 25 study in order to respond to what you were

Page 16

1 looking for in IC-NLH-140?
 2 MR. PATRICK BOWMAN:
 3 A. We took the response in IC-140, the original
 4 version of IC-140, which provides an entire
 5 cost of service study, it has the full 106
 6 pages of detail, and did the comparison
 7 between that and the normal cost of service
 8 study, the original one filed with the GRA to
 9 determine what was changed. What we were able
 10 to conclude was that nothing was changed on
 11 the cost side, and nothing was changed in the
 12 cost of service methods or allocators, such as
 13 a Holyrood capacity factor or the system load
 14 factor, those type of allocators, and that
 15 nothing was changed on the overall billing
 16 determinants. It still said these are the
 17 same customers that are going to exist in
 18 2013. That was a 2013 cost of service study.
 19 The same customers in 2013 is going to use the
 20 same amount of power. The only thing that was
 21 changed was values at one of the later
 22 schedules which I can take you to if you like,
 23 but it is a later schedule where it shows the
 24 amount of energy used by each customer and the
 25 amount of peak imposed on the system by each

Page 17

1 customer, and it adjusts the amount of peak
 2 imposed on the system.
 3 JOHNSON, Q.C.:
 4 Q. Yeah.
 5 MR. PATRICK BOWMAN:
 6 A. Probably the best way to demonstrate that is
 7 actually this document we have up. If you
 8 could go back to page 26, Ms. Gray, the April
 9 28th 2014 submission we did. What you'll see
 10 there is the monthly loads for the various
 11 industrial customers as it was included in the
 12 2013 cost of service study, and you'll see the
 13 issue that arose was not when you look at the
 14 load of the Corner Brook or North Atlantic or
 15 Teck, with normal industrial type operations,
 16 they're very flat, so they incur a demand
 17 charge for which they have billing all year to
 18 pay for. The problem arose with respect to
 19 Vale and Praxair, which had these extra
 20 demands that ramped up, and because demand is
 21 allocated on an annual peak, you can see that
 22 orange line going across the top of that,
 23 which is the way that the demand was measured
 24 to be assigned to the industrial class, okay.
 25 So that 69 or so megawatts was going to be the

Page 18

1 basis for assigning demand to the industrial
 2 class.
 3 JOHNSON, Q.C.:
 4 Q. Uh-hm.
 5 MR. PATRICK BOWMAN:
 6 A. But when you actually went to calculate the
 7 rate associated with that demand, you would be
 8 dividing by the height of all those bars, and
 9 you'll notice that there's no bars for Vale
 10 and Praxair in the early years. So even
 11 though there's a large cost being allocated
 12 associated with their December peak, there's
 13 no load to pay for it. So as a result, what
 14 that cost of service study was doing was
 15 saying I've got to up the rate to other
 16 industrials in order to pay for the fact that
 17 Vale and Praxair is going to peak in December.
 18 JOHNSON, Q.C.:
 19 Q. Just to bring this back, essentially,
 20 fundamentally what Hydro did in response to
 21 the industrial customers request was that they
 22 normalized the load in the test year, and they
 23 did that by reducing what the demand would
 24 look like in the test year to be more
 25 representative of an industrial customer load

Page 19

1 profile? That's the bottom line, isn't it?
 2 MR. PATRICK BOWMAN:
 3 A. Right, they took those orange bars and those
 4 purple bars and they spread them out across
 5 the twelve months.
 6 JOHNSON, Q.C.:
 7 Q. That's right.
 8 MR. PATRICK BOWMAN:
 9 A. The same size of bars, same amount of energy,
 10 just spread out across the twelve months.
 11 JOHNSON, Q.C.:
 12 Q. Okay, now Mr. Bowman, you'll confirm that in
 13 order to provide that result, the result which
 14 you have characterized as giving rise to the
 15 most reasonable cost allocation approach, you
 16 can confirm for me that in order for Hydro to
 17 do that, they were not required to run a
 18 complete cost of service study with new
 19 production levels and costs to produce the
 20 results in IC-140, were they?
 21 MR. PATRICK BOWMAN:
 22 A. No, because all of the values we were using
 23 were 2013 values.
 24 JOHNSON, Q.C.:
 25 Q. Right, okay. Now the industrial customers

Page 20

1 obviously asked for this treatment for a
 2 reason, an economic reason, right?
 3 MR. PATRICK BOWMAN:
 4 A. Yes.
 5 JOHNSON, Q.C.:
 6 Q. Now what was the effect on the industrial
 7 customer cost allocation in dollars for both
 8 energy and demand as a result of what Hydro
 9 prepared in IC-NLH-140?
 10 MR. PATRICK BOWMAN:
 11 A. My recollection is the energy charge didn't
 12 change, or if it changed, it was immaterial,
 13 but the demand charge changed by a little over
 14 \$1.00 a kilowatt, which is about 12 percent.
 15 JOHNSON, Q.C.:
 16 Q. And, I guess, would you be able to undertake
 17 to provide what difference it would have made
 18 in terms of the cost allocation approach?
 19 MR. PATRICK BOWMAN:
 20 A. What difference it made in terms of the cost.
 21 So actually I - it's in the same document.
 22 JOHNSON, Q.C.:
 23 Q. Could you bring us there?
 24 (9:30 a.m.)
 25 MR. PATRICK BOWMAN:

Page 21

1 A. I can. It is page 28.
 2 JOHNSON, Q.C.:
 3 Q. Okay.
 4 MR. PATRICK BOWMAN:
 5 A. And I understated it, actually. In bullet 2,
 6 you'll see it near the bottom of the page, "In
 7 response to IC-140, Hydro notes that based on
 8 normalized requirements of the two customers,
 9 the peak will be 4.9 rather than 19.6", so
 10 that's taking that one high December peak and
 11 spreading it out across a year. "Full cost of
 12 service is provided and shows industrial
 13 demand rate adjusted from 9.13 per kilowatt to
 14 7.59". So it's actually about \$1.50 or
 15 something, so it's a little bit higher, it's
 16 about 20 percent.
 17 JOHNSON, Q.C.:
 18 Q. Yes, and continue reading now, if you would?
 19 MR. PATRICK BOWMAN:
 20 A. "Adjusting industrial class revenue
 21 requirement by 1.3 million dollars".
 22 JOHNSON, Q.C.:
 23 Q. Yeah, from 28.955 million to 27.667 million.
 24 MR. PATRICK BOWMAN:
 25 A. Right.

Page 22

1 JOHNSON, Q.C.:
 2 Q. So for the record, this is at lines 28 to
 3 about 30?
 4 MR. PATRICK BOWMAN:
 5 A. Yes.
 6 JOHNSON, Q.C.:
 7 Q. On page - where is that in your report?
 8 MR. PATRICK BOWMAN:
 9 A. Page 28 of the April 28th, 2014 report.
 10 JOHNSON, Q.C.:
 11 Q. Okay. Now you mentioned there that time that
 12 there was no change in energy. Did you say
 13 that?
 14 MR. PATRICK BOWMAN:
 15 A. No change in energy, that's correct.
 16 JOHNSON, Q.C.:
 17 Q. So that would mean, would it not, that the
 18 industrial customer class would be getting the
 19 best of both worlds, right, because we would
 20 be normalizing the peak for you, but we would
 21 also be leaving the energy levels as very low
 22 as well, because these Vale and Praxair,
 23 they're not expending a lot of energy as
 24 they're in these commissioning phases, would
 25 that be right?

Page 23

1 MR. PATRICK BOWMAN:
 2 A. Well, I don't accept the characterization as
 3 best. It's not actually good to leave the
 4 energy low. As we can see from the exhibit
 5 that was distributed yesterday, if you're
 6 dealing with in one test year and one set of
 7 costs, more load gives you the ability to
 8 spread the same costs across more units and it
 9 actually lowers the rate. If anything, this
 10 isn't the best of both worlds. Leaving the
 11 energy low like that means that all those
 12 fixed costs of the system like the hydro
 13 plant, bricks and mortar, the Holyrood bricks
 14 and mortar, are spread across less energy
 15 units and it keeps the rate higher. So it's
 16 not better to use low energy, and that's
 17 demonstrated by the exhibit Hydro handed out
 18 yesterday.
 19 JOHNSON, Q.C.:
 20 Q. Okay.
 21 MR. PATRICK BOWMAN:
 22 A. On the peak side, is it the best of both
 23 worlds; well, our contention is, looking back
 24 to that graph we were at, is what was provided
 25 in the original cost of service study was a

Page 24

1 bit of a phoney distribution because it
 2 implied that there was this peak, that there
 3 was load to pay for and there was no load to
 4 pay for, and so it was effectively just saying
 5 Vale is going to - Vale and Praxair are going
 6 to cause about 15 megawatts of costs, which
 7 they weren't, and that 15 megawatts of cost
 8 need to be paid for, and because they're in
 9 this class, we'll roll it into the industrial
 10 customer costs. One of the other suggestions
 11 here was to say Vale and Praxair aren't our
 12 problem, they're their own problem, so make
 13 them their own cost, we'll pay 8 bucks,
 14 they'll pay 15.
 15 JOHNSON, Q.C.:
 16 Q. Yeah.
 17 MR. PATRICK BOWMAN:
 18 A. Others would have led to NP paying more. Some
 19 of them would have led to NP paying less.
 20 JOHNSON, Q.C.:
 21 Q. So the savings that were brought about through
 22 the reply, which you've indicated is the most
 23 reasonable cost allocation approach, the
 24 savings that would have accrued to the IC
 25 class of 1. something million dollars, that

Page 25

1 would have added to the cost of Newfoundland
 2 Power, is that right?
 3 MR. PATRICK BOWMAN:
 4 A. Yes.
 5 JOHNSON, Q.C.:
 6 Q. Okay, now in the transcript from yesterday,
 7 you were having some discussion about
 8 Undertaking 41. You recall that discussion, I
 9 take it?
 10 MR. PATRICK BOWMAN:
 11 A. Yes.
 12 JOHNSON, Q.C.:
 13 Q. And you indicated that one needs to be careful
 14 not to mix and match loads and cost from
 15 different years in a cost of service study.
 16 Do you remember saying that?
 17 MR. PATRICK BOWMAN:
 18 A. Yes.
 19 JOHNSON, Q.C.:
 20 Q. And by the way, we agree with you completely
 21 on that point, and Mr. Bowman agrees with you,
 22 and I think you understand that Mr. Bowman
 23 agrees with you, don't you?
 24 MR. PATRICK BOWMAN:
 25 A. Yes, I do, yes.

Page 26

1 JOHNSON, Q.C.:
 2 Q. Because I think you testified yesterday that
 3 you were in the same place as Mr. Bowman on
 4 that issue, aren't you?
 5 MR. PATRICK BOWMAN:
 6 A. In regards to not putting in place a cost of
 7 service study that is internally inconsistent,
 8 I think - I think anybody in this business
 9 would say the same thing.
 10 JOHNSON, Q.C.:
 11 Q. Okay, and just to be very clear on this now,
 12 Undertaking 41, that does not mix and match
 13 loads and costs from different years, does it?
 14 MR. PATRICK BOWMAN:
 15 A. Oh, yes it does, absolutely.
 16 JOHNSON, Q.C.:
 17 Q. Oh, it does?
 18 MR. PATRICK BOWMAN:
 19 A. Yes, absolutely, and in particular in regards
 20 to the energy, and I can show you that if you
 21 like.
 22 JOHNSON, Q.C.:
 23 Q. Let's go to it.
 24 MR. PATRICK BOWMAN:
 25 A. If we go to Attachment 2, which is the fourth

Page 27

1 page of that Undertaking. Now it also arises
 2 in respect of demand, but energy is where
 3 you'll see it most blatantly. What you'll see
 4 at row 4 is the megawatt hours of energy
 5 assumed to be on the system in each of those
 6 years. So in 2015, it's 7238, that's actually
 7 the GRA number, there's a footnote where
 8 you'll find that. 7503 in the subsequent
 9 year, and 7590 in the final year, and those
 10 increases are due to all customers, but
 11 primarily due to the industrial customers
 12 because this is still based on the GRA load
 13 forecast which had Vale ramping up faster and
 14 higher than the most recent information, as I
 15 understand it, but those numbers, you'll see
 16 the energy goes up, and in that same time
 17 period Hydro doesn't have other resources
 18 despite energy, that's going to come from
 19 Holyrood fuel. Now if you look down to Row 8,
 20 you'll see the total energy cost and as you go
 21 across the page, you'll see the 361,750 is
 22 maintained the same. So there's been no fuel
 23 cost added associated with Holyrood to supply
 24 those extra energy units, so all we're doing
 25 here is carving up the existing system, which

Page 28

1 means those fixed components of the energy
 2 like the bricks and mortar of the Hydro dam,
 3 plus some share of Holyrood fuel, but not
 4 enough Holyrood fuel to actually supply the
 5 load in that 2017 scenario, and the
 6 difference, I just did the math quickly last
 7 night, is about 321 gigawatt, and because of
 8 this was based off of the \$93.00 a barrel of
 9 Holyrood fuel, that's about 50 million dollars
 10 that's missing from the 2017 column. If you
 11 added that in, those energy rates would go
 12 from about 5.2 to about 5.4 or 5.5 for all the
 13 customers.
 14 JOHNSON, Q.C.:
 15 Q. So in terms of this, just to understand, you
 16 are in agreement that the revenue requirement
 17 stays the same in cost across 2015, 2016, and
 18 2017, are you?
 19 MR. PATRICK BOWMAN:
 20 A. In this analysis.
 21 JOHNSON, Q.C.:
 22 Q. In this analysis.
 23 MR. PATRICK BOWMAN:
 24 A. The revenue requirement stays the same - the
 25 columns are somewhat mislabelled because it

Page 29

1 says 2016 forecast and 2017 forecast. It's
 2 not really a 2016 and 2017 forecast. It's a
 3 2015 forecast cost being distributed across a
 4 2017 forecast load.
 5 JOHNSON, Q.C.:
 6 Q. Let me just bring you to Attachment 1 for a
 7 second.
 8 MR. PATRICK BOWMAN:
 9 A. Sure.
 10 JOHNSON, Q.C.:
 11 Q. You see line 8 going across, right?
 12 MR. PATRICK BOWMAN:
 13 A. Yes.
 14 JOHNSON, Q.C.:
 15 Q. Line 8 is your - that's your total revenue
 16 requirement for 2015, 2016, 2017, right?
 17 MR. PATRICK BOWMAN:
 18 A. No, what I made is a total revenue requirement
 19 for 2015 and it's repeated in each year.
 20 JOHNSON, Q.C.:
 21 Q. And it's repeated -
 22 MR. PATRICK BOWMAN:
 23 A. So even under the 2017 column, that is not the
 24 2017 revenue requirement, that is only the
 25 2015 revenue requirement. It doesn't include

Page 30

1 other things Hydro would build in the
 2 meantime, and the like.
 3 JOHNSON, Q.C.:
 4 Q. But fundamentally, Mr. Bowman, what we're
 5 getting at is allocation, aren't we?
 6 MR. PATRICK BOWMAN:
 7 A. Well, we're trying to note - I mentioned
 8 energy -
 9 JOHNSON, Q.C.:
 10 Q. Aren't we trying to come up with a fair or a
 11 reasonable cost allocation approach in the
 12 test year? Isn't that the exercise?
 13 MR. PATRICK BOWMAN:
 14 A. Yes.
 15 JOHNSON, Q.C.:
 16 Q. Right, and, I guess, I'm struggling with your
 17 example from 2014 is that you normalized the
 18 industrial customer load because you're
 19 saying, look, this industrial customer load
 20 that we're seeing in Hydro's 2013 test year,
 21 that's not really representative, it's not
 22 reflective of what the load is going to look
 23 like while rates are in effect, right?
 24 MR. PATRICK BOWMAN:
 25 A. Well -

Page 31

1 JOHNSON, Q.C.:
 2 Q. Isn't that true?
 3 MR. PATRICK BOWMAN:
 4 A. The way we phrased it was it's not
 5 representative of the load that will be on the
 6 system, it tries to allocate costs to
 7 fundamentally Vale and Praxair, where there's
 8 no load to pay for it.
 9 JOHNSON, Q.C.:
 10 Q. Well, just back up for a second. If we could
 11 bring up your April 28th testimony.
 12 MR. PATRICK BOWMAN:
 13 A. Yeah.
 14 JOHNSON, Q.C.:
 15 Q. Page 29 again, lines 3 to 5.
 16 MR. PATRICK BOWMAN:
 17 A. Uh-hm.
 18 JOHNSON, Q.C.:
 19 Q. You say, "One of the underlying principles
 20 behind cost of service analysis is that it is
 21 never a precise tool for cost allocation.
 22 However, the analysis should reflect fair and
 23 reasonable estimation of the cost
 24 responsibility between customer classes for
 25 the periods in which the study is being

Page 32

1 applied".
 2 MR. PATRICK BOWMAN:
 3 A. Yes.
 4 JOHNSON, Q.C.:
 5 Q. Okay, and you stand by this principle, I take
 6 it?
 7 MR. PATRICK BOWMAN:
 8 A. Yes.
 9 JOHNSON, Q.C.:
 10 Q. Okay, and the periods in which the study was
 11 going to be applied, that's the period, I take
 12 it, that you mean that the rates are expected
 13 to be in effect, is that right?
 14 MR. PATRICK BOWMAN:
 15 A. Yes.
 16 JOHNSON, Q.C.:
 17 Q. Okay, now if we look at what Mr. Douglas
 18 Bowman is saying, is that we are going to be
 19 seeing the industrial customer load going up
 20 20 percent over 2015 levels in 2016, some 40
 21 odd percent in 2017 over 2015, and does that
 22 reflect, in your judgment, a fair and
 23 reasonable estimation of the cost
 24 responsibility between the customer classes
 25 over the period that the rates are expected to

Page 33

1 be in effect?
 2 MR. PATRICK BOWMAN:
 3 A. What's provided in Hydro's 2015 cost of
 4 service study does reflect it, and I think
 5 this exhibit only helps to underline that.
 6 There will be good news as Vale load grows, if
 7 only that load growth - the upside, if only
 8 that load growth didn't come with other costs,
 9 and that should be upside for Newfoundland
 10 Power's customers, it should be upside for
 11 Corner Brook's customers - or Corner Brook as
 12 a customer, it should be upside for North
 13 Atlantic as a customer. The problem is we
 14 can't come along now and say in 2015 we're
 15 going to shove those costs to Vale because
 16 they don't have the load to pay for it. If
 17 they're happy to pay for it, that's fine, but
 18 I don't think that's consistent with the Order
 19 the Board says. So when the load is there to
 20 carve up the pie a different way to share
 21 those fixed costs across a greater number of
 22 units, then there should be some benefit.
 23 Unfortunately, that load takes enough years to
 24 come on line that the cost - I think Hydro's
 25 cost you'll see will also grow during that

Page 34

1 period, but load growth, the shared fixed
 2 costs across, is generally good news for
 3 existing customers. We agree on that point.
 4 The only question is whether that benefit can
 5 be captured in 2015 before the load arises to
 6 pay for it. We can't go along and say let's
 7 assign industrial customer costs as if they're
 8 a bigger share of the system, 11 percent of
 9 the system, when they're only 9. They're
 10 going to be 11. Great, when they're 11, we
 11 can assign costs to them when it's 11 because
 12 then they have the load to pay for; otherwise,
 13 who's paying for those units. That's what I'm
 14 saying, it's the exact opposite problem of
 15 what we were trying to address in the evidence
 16 we filed. You can't allocate cost to a class
 17 before there's load to pay for, and this
 18 method, if we're not careful, is saying we
 19 want to capture upside that will come down the
 20 road and try to put it into today's rates. I
 21 wish we could, but I just don't see a way to
 22 do that yet, and if you see across there,
 23 there should be good news about the existing
 24 cost for the Newfoundland Power as Vale's load
 25 growth, the rates - the demand cost allocation

Page 35

1 goes from 10.18 down to 9.72 over this period
 2 for some existing set of costs. If Hydro's
 3 costs don't grow in that time frame, there
 4 should be some room for some rate decreases as
 5 that is applied in respect of the demand
 6 component, and in respect to the fixed energy
 7 components. Unfortunately, those will be
 8 offset by some increases in the fuel volumes,
 9 but that's where the mixing and matching
 10 problem arises.
 11 JOHNSON, Q.C.:
 12 Q. So you do not accept that what Mr. Bowman is
 13 proposing is simply a normalizing of the
 14 allocators that assign cost responsibility
 15 between the different classes?
 16 MR. PATRICK BOWMAN:
 17 A. No, and I think it would be clearer if we did
 18 it with the split classes, if you like, and
 19 you were to run this analysis, you would see
 20 that the industrial customers rate would do -
 21 the existing industrial customers rate would
 22 do a good thing, NP's rate would do a good
 23 thing, and Vale's rate in '15 and '16 would be
 24 through the roof because they're trying to
 25 assign them cost that they don't have any load

Page 36

1 to pay for.
 2 JOHNSON, Q.C.:
 3 Q. Okay, and there will likely be a further
 4 undertaking at some point which we can discuss
 5 later to have in time for Mr. Fagan's
 6 testimony.
 7 Now, yesterday you indicated as well that
 8 Vale and Praxair have a special order
 9 exempting them from a normal power on order,
 10 do you recall that?
 11 MR. PATRICK BOWMAN:
 12 A. Yes.
 13 JOHNSON, Q.C.:
 14 Q. And did you indicate that the 2013 test year
 15 did not recognize this? So, therefore, you
 16 felt it appropriate to adjust the IC class
 17 load factor in the cost of service study.
 18 We've already been through that, right?
 19 MR. PATRICK BOWMAN:
 20 A. Yes, it didn't recognize it in respect of the
 21 principles underlying the cost of service
 22 study. It did recognize it in the billing
 23 units.
 24 JOHNSON, Q.C.:
 25 Q. Right, okay, and did you also say yesterday

Page 37

1 that this had been addressed in the 2015 test
 2 year?
 3 MR. PATRICK BOWMAN:
 4 A. I said it wasn't needed to be addressed in the
 5 2015 test year because if we had that same
 6 graph that we just pulled up for the 2015 test
 7 year, those bars would be all approximately
 8 the same height.
 9 JOHNSON, Q.C.:
 10 Q. Okay, so is it time for the Board to rescind
 11 the special order for Vale and Praxair at this
 12 point?
 13 MR. PATRICK BOWMAN:
 14 A. I can't say that because I don't know about
 15 the actual facts of their ramp up or you know,
 16 different years that might arise in fact as
 17 opposed to what's in the forecast. Power on
 18 order as a concept requires a customer to be
 19 able to make a reasonable estimate of their
 20 annual amount and to basically pre-contract
 21 for a fixed amount of power. And I'm not sure
 22 that Vale and Praxair, if they got--I don't
 23 know enough about it.
 24 JOHNSON, Q.C.:
 25 Q. Okay. Can I turn to pages 2 of your report,

Page 38

1 your recent report for this amended GRA? If
 2 you could scroll down a little bit further,
 3 right to the footnote there. The footnote I'm
 4 bringing your attention to is Number 3. You
 5 say, Mr. Bowman, you say, "moreover the recent
 6 OC direction from Government directs an
 7 unprecedented transfer of positive balances
 8 from the industrial customer RSP as a subsidy
 9 to Newfoundland Power and it's customers"?
 10 MR. PATRICK BOWMAN:
 11 A. Yes.
 12 JOHNSON, Q.C.:
 13 Q. And can you explain how you could have
 14 possibly characterized that as being a subsidy
 15 to Newfoundland Power and its customers?
 16 MR. PATRICK BOWMAN:
 17 A. Well, I characterize it as that, with a caveat
 18 that it's not a word I usually use because
 19 subsidy is a bit of a pejorative and in the
 20 eye of the beholder, but I characterize as
 21 that because as far as a customer class goes,
 22 in a normal world, you would go to a GRA, you
 23 would have a set of forecasts prepared, you
 24 would come up with a rate and you'd be
 25 responsible for paying a rate and you'd be

Page 39

1 done. You'd pay your rate and at the end of
 2 the year, you'd get your final bill and you
 3 settle up and you know that you've covered
 4 your costs. In this world where we have this
 5 odd load variation component, that's not the
 6 end of the story. We have the ability to
 7 extend these GRA periods to a long period of
 8 time and as a result, you can have these
 9 balances accrue. But if I'm a customer at any
 10 normal operation, be it regulated or not, if I
 11 pay my bill that's based on a reasonable
 12 estimate of cost, validly approved, at the end
 13 of the year, I shouldn't have an amount to me.
 14 I'd be done. And what we're saying is that in
 15 this instance, given the structure,
 16 Newfoundland Power had no reason to be facing
 17 a credit there and they ended up getting a
 18 credit out of that. So that's where the
 19 concept of subsidy came in.
 20 Now, I accept that it's a bit stretched
 21 because of the nine-year interval and the
 22 major changes that went on that should have
 23 been subject to a GRA and weren't.
 24 JOHNSON, Q.C.:
 25 Q. You must admit the use of the term "subsidy"

Page 40

1 as though the Industrial Customers were in any
 2 fashion subsidizing Newfoundland Power, I
 3 mean, you'd have to agree that that's a wholly
 4 inappropriate use of the term "subsidy", isn't
 5 it?
 6 MR. PATRICK BOWMAN:
 7 A. Well, Mr. Johnson, I was here in '06 and '03
 8 and saying you shouldn't have this load
 9 variation component because what it does is it
 10 shoves risks of load change onto customers
 11 that should rest with Hydro. One of the big
 12 debates is fine, we're shoving this risk onto
 13 customers, which customer class is going to
 14 bear it? And in 2001, Industrial Customers in
 15 Newfoundland Power bore each other's risk in a
 16 very odd fashion. And by the time we got to
 17 2003, people said let's redo this RSP so that
 18 Newfoundland Power's associate got its own
 19 risk of load variation in its own account and
 20 Industrial Customers bear the risk of
 21 Industrial Customer variation in their own
 22 account. It wasn't the outcome we wanted. We
 23 wanted no risk whatsoever related to that,
 24 except as Hydro would come back for the next
 25 GRA.

Page 41

1 But the decision was to put in place an
 2 account that said Industrial Customers share
 3 the risk of each other's loads, knowing that
 4 if Industrial Customers had loads that had
 5 grown, they would have faced severe rate
 6 increases and if the Industrial Customers
 7 loads had shrunk, they would have faced large
 8 credits. And for ten years, Industrial
 9 Customers carried that risk in that RSP and
 10 they ended up on the good side of that ledger.
 11 There's nothing saying it couldn't have been
 12 on the bad if Vale had come on sooner, for
 13 example, and Stephenville had stayed up or
 14 Grand Falls had stayed up.
 15 But because these two things were
 16 separated, if you're only looking at this NP
 17 box, NP was supposed to be clean of the risk
 18 of Industrial Customers, upside and down side,
 19 and yet, at the end of the day, because there
 20 was upside there, it got shared with NP. As I
 21 said, subsidy is a strong term, but it -- I'm
 22 not going to debate the specific test of it,
 23 if it's possible to not get into that. I'm
 24 happy to say that we could call it a transfer,
 25 but the fact of the matter is, given this odd

Page 42

1 situation, there was a transfer to NP which
 2 was not otherwise provided for in the RSP
 3 rules and which they didn't bear a risk up or
 4 down for.
 5 JOHNSON, Q.C.:
 6 Q. Do you have much knowledge of the litigation
 7 that went on at the Court of Appeal and
 8 anything like that, Mr. Bowman?
 9 MR. PATRICK BOWMAN:
 10 A. Do you mean in regards to the 2009 RSP?
 11 JOHNSON, Q.C.:
 12 Q. Yeah, and the ability of the Board's
 13 jurisdiction to deal with the -
 14 MR. PATRICK BOWMAN:
 15 A. I submitted evidence in that proceeding and
 16 generally followed it, but I won't say I was
 17 in the middle of the legal principles being
 18 debated.
 19 JOHNSON, Q.C.:
 20 Q. So beyond that, you don't have much of a
 21 handle on the legalities of what was the
 22 potential options to deal with that money?
 23 MR. PATRICK BOWMAN:
 24 A. No. I'm only talking about it from the
 25 context of rates, and the best solution would

Page 43

1 have been no load ration (phonetic) for even
 2 more frequent GRAS. The second best solution
 3 might have been keep the load variation and
 4 have more frequent GRAS. The inferior
 5 solution was a load variation and no GRAS,
 6 which is what we ended up, and as a result,
 7 the decisions were made. But I'm not
 8 commenting on the legal side.
 9 JOHNSON, Q.C.:
 10 Q. By virtue of this Order in Council that the
 11 footnote refers to, the ICs benefited to the
 12 extent of about 37.6 million, right?
 13 MR. PATRICK BOWMAN:
 14 A. Well, Mr. Johnson, there were a set of rules
 15 that were put in place and the transfer
 16 occurred from the IC account.
 17 JOHNSON, Q.C.:
 18 Q. Okay. Just -
 19 MR. PATRICK BOWMAN:
 20 A. We can argue who -- benefitted compared to
 21 what, compared to the rules that were there?
 22 No, they actually were transferred out of
 23 their balance.
 24 JOHNSON, Q.C.:
 25 Q. Let's not play semantics now. The Order in

Page 44

1 Council put to the Industrial Customer class
 2 benefit the amount of 37.6 million, and that's
 3 just a fact, isn't it?
 4 MR. PATRICK BOWMAN:
 5 A. I think the word "benefit" is the problem.
 6 The Industrial -- you know, the Order in
 7 Council took a balance that was to the credit
 8 of the Industrial Customers, as it was
 9 reported in the account and said you can keep
 10 37.6, if that's the right number, it sounds
 11 right, and that the rest you can't keep. Is
 12 it a benefit if somebody leaves dollars in
 13 your account that were there in the first
 14 place? I'm not sure benefit is the word I
 15 would use. It remained.
 16 JOHNSON, Q.C.:
 17 Q. And let's make no mistake about it now, the
 18 37.6 million dollars or the savings that
 19 accrued, the total savings that accrued in the
 20 load variation account, I mean, that didn't
 21 come about because of the Industrial Customers
 22 becoming energy efficient or anything like
 23 that. It came about by way of plant closures,
 24 some of which I understand from testimony
 25 earlier in this proceeding, Hydro read about

Page 45

1 in the news, right?
 2 MR. PATRICK BOWMAN:
 3 A. We're not disagreeing with you.
 4 JOHNSON, Q.C.:
 5 Q. No.
 6 MR. PATRICK BOWMAN:
 7 A. Some of it would have been energy efficiency,
 8 but if I can go a step, this is a bit of a
 9 problem that arises when you're talking about
 10 mixing the concepts of embedded rates with
 11 marginal rates, and we bridge these two all
 12 the time here, is that people want to say we
 13 want embedded rates, which means carve up this
 14 pie fairly, but we want marginal rates which
 15 means if your costs change, you face the
 16 difference in the cost structure, and this RSP
 17 basically said let's set embedded rates in
 18 '06, so everyone shared their fair share of
 19 the cost, but let's have the marginal benefit
 20 or cost of industrial changes borne by the
 21 Industrial Customers. And you know, honestly,
 22 Mr. Johnson, did Industrial Customers have a
 23 claim to that money by the mathematics, it was
 24 in their account, by the principle that they
 25 carried the risk over that years, which I

Page 46

1 would say is a weak claim, but it exists.
 2 They had a claim to that money. I don't know
 3 what claim NP would have had other than we
 4 should have had a GRA, and if we did, it would
 5 have been reallocated.
 6 But, I think we're going over the same
 7 ground. It was an unprecedented and
 8 unfortunate situation, thankfully to the good.
 9 If it had been a negative balance, I'm not
 10 sure people would have been treating it the
 11 same way. But, you know, it's behind us.
 12 JOHNSON, Q.C.:
 13 Q. Well, do you know how the 37.6 million dollars
 14 compares to the annual revenue for the entire
 15 IC class over that period of 2008 to 2012, Mr.
 16 Bowman?
 17 MR. PATRICK BOWMAN:
 18 A. No, but I'm not sure 2008 to 2012 would be the
 19 right numbers to use either, but it's a large
 20 percentage.
 21 JOHNSON, Q.C.:
 22 Q. Yeah. Just bring up CA-NLH-182, if we could?
 23 If we go down, the line 18. "Based on actual
 24 billings, the average annual revenues received
 25 from the IC class during this period, '08 to

Page 47

1 2012, was 17.2 million. Had rates not been
 2 frozen and the new load variation methodology
 3 applied," being sharing it on energy ratios,
 4 "the average annual revenues would have been
 5 22.5 million. Using the 22.5 million, the
 6 37.6 million subsidy equates to 1.7 years of
 7 free power." You don't disagree with the
 8 math?
 9 MR. PATRICK BOWMAN:
 10 A. No.
 11 JOHNSON, Q.C.:
 12 Q. Okay.
 13 MR. PATRICK BOWMAN:
 14 A. No, it was a very unusual and unfortunate
 15 situation, luckily to the good side, but it
 16 wasn't what we would have recommended. No, I
 17 don't disagree with that.
 18 JOHNSON, Q.C.:
 19 Q. And just the next answer is interesting, at
 20 lines 24 to 26. "The dollar amount that
 21 Newfoundland Power's customers would have
 22 received under an equivalent subsidy would be
 23 627.3 million using the actual average annual
 24 revenues from Newfoundland Power for 2008 to
 25 2012."

Page 48

1 MR. PATRICK BOWMAN:
 2 A. I see the mathematics. I know -- this is a
 3 Hydro response. I guess they're also claiming
 4 the word "subsidy" in regards to these
 5 balances, but I'm -- no, I see the
 6 mathematics. I don't have an issue with that.
 7 JOHNSON, Q.C.:
 8 Q. Okay. Thank you, Mr. Bowman. I have no
 9 further questions.
 10 CHAIRMAN:
 11 Q. I think we're to you, Mr. O'Reilly.
 12 MR. PATRICK BOWMAN, CROSS-EXAMINATION BY THOMAS O'REILLY,
 13 Q.C.
 14 O'REILLY, Q.C.:
 15 Q. Yes, Mr. Chairman. Thank you. Mr. Bowman,
 16 during your cross-examination yesterday, you
 17 were asked whether you were aware of any other
 18 jurisdictions that calculate specifically
 19 assigned O&M charges in the manner being
 20 suggested by Mr. Dean and in Hydro's response
 21 to Vale 083, Revision 1, I believe. Do you
 22 remember that?
 23 MR. PATRICK BOWMAN:
 24 A. Yes.
 25 O'REILLY, Q.C.:

Page 49

1 Q. Okay. I understood your answer to be that you
 2 are not aware of any other jurisdictions that
 3 specifically assign O&M charges. Is that
 4 correct?
 5 MR. PATRICK BOWMAN:
 6 A. Yes.
 7 O'REILLY, Q.C.:
 8 Q. Okay. So I understand then that you're not
 9 aware of any jurisdictions that use either the
 10 method used by Hydro in the Amended GRA
 11 evidence or the method suggested by Mr. Dean?
 12 Is that right?
 13 MR. PATRICK BOWMAN:
 14 A. Yes.
 15 O'REILLY, Q.C.:
 16 Q. Okay. So while you're not aware of any
 17 jurisdictions that specifically assigned O&M
 18 charges, would you agree that indexing is
 19 commonly used in utility practice when past
 20 dollars are being compared to present dollars?
 21 Would you agree with that?
 22 MR. PATRICK BOWMAN:
 23 A. Yes.
 24 O'REILLY, Q.C.:
 25 Q. Okay. Now during questioning by Mr. Johnson,

Page 50

1 you explained that there are two methods on
 2 which O&M charges could be specifically
 3 assigned. The first method I believe that you
 4 referred to, you referred to it as the
 5 spreadsheet method, and that is the method
 6 used by Hydro. Is that correct?
 7 MR. PATRICK BOWMAN:
 8 A. Yes.
 9 O'REILLY, Q.C.:
 10 Q. Okay. And I understood your evidence as well
 11 to be that if the spreadsheet method is being
 12 used, indexing of the costs that go into the
 13 spreadsheet is an equitable and reasonable way
 14 to complete the calculation. Is that correct?
 15 MR. PATRICK BOWMAN:
 16 A. Yes.
 17 O'REILLY, Q.C.:
 18 Q. Okay. I also understood you to say that if
 19 the spreadsheet method is being used, there is
 20 no reason to wait until a cost of service
 21 methodology hearing to use indexing for the
 22 calculation. Is that correct?
 23 MR. PATRICK BOWMAN:
 24 A. Yes.
 25 O'REILLY, Q.C.:

Page 51

1 Q. I understood you. Now the second method that
 2 you described would involve conducting an
 3 asset by asset review to determine what
 4 portion of the O&M costs should be assigned to
 5 that asset. Is that correct?
 6 MR. PATRICK BOWMAN:
 7 A. Yes.
 8 O'REILLY, Q.C.:
 9 Q. And I also understood you to say that this
 10 method is something that could be considered
 11 at a cost of service methodology hearing.
 12 MR. PATRICK BOWMAN:
 13 A. I probably said it ought be considered because
 14 it should be a normal part of testing whether
 15 your cost of service study is yielding
 16 reasonable results.
 17 O'REILLY, Q.C.:
 18 Q. Reflective of the assets that are being
 19 managed?
 20 MR. PATRICK BOWMAN:
 21 A. Yes.
 22 O'REILLY, Q.C.:
 23 Q. Yes, okay. I also understood you to say that
 24 indexing may sufficiently account for the
 25 inequities created by the current calculation

Page 52

1 as such as the second method may not be
 2 required if indexing is used.
 3 MR. PATRICK BOWMAN:
 4 A. Right. So if I can just expand on that?
 5 O'REILLY, Q.C.:
 6 Q. Yes.
 7 (10:00 a.m.)
 8 MR. PATRICK BOWMAN:
 9 A. The issue we were dealing with in this hearing
 10 particularly related to Corner Brook. When I
 11 looked through the specifically assigned
 12 charges that are being proposed, we saw
 13 changes for North Atlantic, who's had very
 14 little investment. They're small and they're
 15 not significant changes in regard to the GRA.
 16 What Hydro proposed came across as reasonable.
 17 Teck was seeing some fairly substantial
 18 increases, but they weren't that far off of
 19 inflation from 2006. It was Corner Brook that
 20 was seeing increases that raised a red flag
 21 because they were proposed to increase by
 22 about 150 percent or something in that order,
 23 from 140 to 328, and so that didn't pass that
 24 a reasonableness test. And I would say that
 25 same reasonableness test needs to be applied

Page 53

1 whether you're using the non-indexed
 2 spreadsheet method or the indexed spreadsheet
 3 method.
 4 In today's hearing, were we to apply the
 5 indexed spreadsheet method, as I understand
 6 the evidence, Corner Brook's charge would not
 7 go up from 140 to 328. It would go up from
 8 140 to 161 and that is, again, pretty
 9 comparable to inflation over that period. So
 10 at least at a smell-test level, that's in the
 11 order of what you'd expect with the type of
 12 inflationary increase and no material change
 13 and so, I think the red flags would go down in
 14 regards to Corner Brook, if only you applied
 15 that.
 16 O'REILLY, Q.C.:
 17 Q. Applying and indexing?
 18 MR. PATRICK BOWMAN:
 19 A. Yes.
 20 O'REILLY, Q.C.:
 21 Q. Okay. Okay, thank you very much, Mr. Bowman.
 22 Thank you. That's all, Mr. Chairman. Thank
 23 you.
 24 CHAIRMAN:
 25 Q. You're on.

Page 54

1 MR. PATRICK BOWMAN, CROSS-EXAMINATION BY MAUREEN GREENE,
 2 Q.C.
 3 GREENE, Q.C.:
 4 Q. Good morning, Mr. Bowman. I do have one area
 5 to follow up on and it does relate to the
 6 questions Mr. O'Reilly just asked. I wanted
 7 to ask you about your research that you had
 8 done with respect to the methodology for the
 9 calculation of specifically assigned charges.
 10 I understood from your evidence yesterday,
 11 perhaps incorrectly, that you were not
 12 familiar, as Mr. O'Reilly just said, with
 13 practices in other jurisdictions, but I did
 14 not get the sense that you had done a review
 15 of those practices and were in a position to
 16 provide expert opinion with respect to it. Is
 17 that correct?
 18 MR. PATRICK BOWMAN:
 19 A. At the time we filed -
 20 GREENE, Q.C.:
 21 Q. Or did I misunderstand?
 22 MR. PATRICK BOWMAN:
 23 A. At the time we filed the evidence, we hadn't
 24 had an opportunity to go through that. The
 25 question arose more as people moved through

Page 55

1 the negotiation stages and as a result of
 2 that, I went back and looked at the Industrial
 3 Customer connections that we deal with. I've
 4 dealt with them in Manitoba Hydro and I've
 5 dealt with them in Yukon and also the way that
 6 non-Industrial Customers, the commercial
 7 customers get hooked up, and there is -- I
 8 know that the normal practice for small
 9 connections of customers is that there's not
 10 some special allocation of O&M, you know, if a
 11 customer needs to pay a thousand dollars to
 12 get their line extension. The question is on
 13 the big industrial ones and as I said, I did
 14 talk to Manitoba Hydro, who runs both an
 15 electric and a gas utility, by the way, and
 16 they have two different methods, depending if
 17 you're electric or gas. The electric side,
 18 they charge the customer the capital when a
 19 line is constructed, such as it was done with
 20 Vale here, but there's no further allocation
 21 of O&M in the cost of service study. It's not
 22 something that track.
 23 Now as I mentioned, it may be that their
 24 connections are a smaller volume or a smaller
 25 dollar value than they are here. I didn't

Page 56

1 compare that, but I can tell you, they don't
 2 track O&M. When they get something like the
 3 gas side, they also don't track O&M in the
 4 cost of service study. But what they do is
 5 that when the customer is connected, they
 6 charge both for the cost of the pipe that they
 7 install, plus a present value estimate of the
 8 future O&M. So the charge for the customer
 9 charge is initially calculated at cost level
 10 that includes that future O&M. Against that,
 11 they credit the present value future revenues
 12 the customer will bring. So if the customer
 13 is big enough and the connection is small
 14 enough, they don't pay anything towards it,
 15 because they're actually benefiting the
 16 system. So these are a much more complicated
 17 type of method on the gas side, which is also
 18 pretty typical in the gas industry and
 19 sometimes in electrical. And under that type
 20 of method, you know, Vale may not have been
 21 responsible for any costs because they brought
 22 more benefits through shared load than they
 23 would have paid in the long.
 24 I also looked at a situation in Yukon
 25 where a new mine was hooked up that we were

Page 57

1 involved in and there was no -- there's no
 2 ongoing allocation of O&M in the cost of
 3 service study and there was no present value
 4 of O&M included in the connection cost.
 5 GREENE, Q.C.:
 6 Q. So I took from your answer that your research
 7 was limited to Manitoba Hydro and the Yukon?
 8 MR. PATRICK BOWMAN:
 9 A. Yeah, those were the only two that I had
 10 easily available.
 11 GREENE, Q.C.:
 12 Q. And do you know in Manitoba, with respect to
 13 the operating and maintenance costs associated
 14 with an asset that was built only for one
 15 customer how that does get treated? Is it
 16 treated as a common cost that all customers
 17 pay?
 18 MR. PATRICK BOWMAN:
 19 A. Yes. And similarly for residential
 20 connections. If you pay an extra thousand
 21 dollars because your house is further from the
 22 road, you have a thousand dollar cost in the
 23 cost of service study. You have a thousand
 24 dollar credit in the cost of service study and
 25 O&M isn't further trapped, so it's another

Page 58

1 reason there may be a difference, if they
 2 actually have retail customers in a
 3 substantial way, which of course Newfoundland
 4 Hydro doesn't have.
 5 JOHNSON, Q.C.:
 6 Q. I'm sorry, I'm having trouble hearing.
 7 MR. PATRICK BOWMAN:
 8 A. I was saying the comparability to Manitoba
 9 Hydro I said might be limited for two reasons.
 10 One is the volume of Industrial Customer
 11 connections may be smaller. I didn't compare
 12 that. And second is that Manitoba Hydro has
 13 retail customers, a large number of retail
 14 customers, of course. So the same way that
 15 you don't assign O&M to the Industrial
 16 Customers for their connection, you also don't
 17 assign specifically assigned O&M to all those
 18 thousand dollar, you know, subdivisions or
 19 retail connections, and that may be another
 20 reason why they have the method that they do,
 21 but I was just saying -- it was a question as
 22 to whether anyone does indexing and the answer
 23 was they don't track it at all.
 24 GREENE, Q.C.:
 25 Q. So thank you, Mr. Bowman, that concludes my

Page 59

1 questions.
 2 CHAIRMAN:
 3 Q. So we're back to you, sir.
 4 MR. COXWORTHY:
 5 Q. Yes, thank you, Mr. Chair. No redirect, thank
 6 you.
 7 CHAIRMAN:
 8 Q. Okay. Thank you, sir.
 9 MR. PATRICK BOWMAN:
 10 A. Thank you.
 11 CHAIRMAN:
 12 Q. So we're going to take a break to get ready
 13 for the next witness. Is that correct?
 14 JOHNSON, Q.C.:
 15 Q. Yes, sir.
 16 MS. GLYNN:
 17 Q. Yes, sir.
 18 (BREAK - 10:08 a.m.)
 19 (RESUME - 10:15 a.m.)
 20 CHAIRMAN:
 21 Q. Now we are ready to proceed, sir, and I
 22 understand that you wish to take an oath of
 23 affirmation.
 24 MR. DEAN:
 25 A. Swore in, please, Mr. Chair.

Page 60

1 CHAIRMAN:
 2 Q. Okay. I'm sorry.
 3 MR. MELVIN DEAN, SWORN, EXAMINATION-IN-CHIEF THOMAS
 4 O'REILLY, Q.C.
 5 O'REILLY, Q.C.:
 6 Q. Thank you, Mr. Chairman. Mr. Dean, I'd ask
 7 you if you would, please, you filed two
 8 reports, one on April the 25th, 2014 and the
 9 other on June the 4th, 2015. I want to ask
 10 you, just with particular reference to your
 11 report, if you'd review for the Board in a
 12 very brief manner your education, professional
 13 education and so on.
 14 MR. DEAN:
 15 A. Mr. Chair, I'm a professional engineer in
 16 electrical engineering and when I first got
 17 involved in hearings and applications back in
 18 the 1990s, I recognized my economics was
 19 fairly weak, so I took four University level
 20 courses in economics, just so I could keep up
 21 with it. So that's my basic education.
 22 O'REILLY, Q.C.:
 23 Q. And you're a professional engineer?
 24 MR. DEAN:
 25 A. Professional engineer in the Province,

Page 61

1 electrical engineering.
 2 O'REILLY, Q.C.:
 3 Q. Okay. Probably, Mr. Dean, you could outline
 4 for the Board what your industry experience
 5 is.
 6 MR. DEAN:
 7 A. I worked in industry for -- heavy industry, I
 8 should add, for 41 years in various types of
 9 engineering positions, maintenance, projects,
 10 and also worked in management for the last 15
 11 years. So I've got a fairly broad range of
 12 experience as I've been very fortunate in that
 13 respect.
 14 O'REILLY, Q.C.:
 15 Q. What particular -- and you say in heavy
 16 industry. Any particular companies that -
 17 MR. DEAN:
 18 A. The first few years, I worked in mining and
 19 smelting and then from 1978 to 2011, I was in
 20 the pulp and paper industry.
 21 O'REILLY, Q.C.:
 22 Q. Okay. Mr. Dean, what, if any, regulatory
 23 experience have you got?
 24 MR. DEAN:
 25 A. I've been working in rates and regulatory

Page 62

1 issues since 1990. The mill that I worked at,
 2 which is now shut down for two reasons, high
 3 wood cost and high power costs, made that one
 4 of my priorities back in 1990 to do what I
 5 could to reduce power costs. And so, I have
 6 been very much involved in this process ever
 7 since. It started out in 1990 there was a GRA.
 8 I was present, but I was not -- did not give
 9 testimony, but I was present in that one.
 10 1992, I did give testimony. The 2001 GRA and
 11 2003, I also gave testimony. In between,
 12 there's a number of other applications.
 13 There's a 1992 cost of service methodology.
 14 In the mid '90s, there was a rural rate
 15 application. At that time, Industrial
 16 Customers paid rural rates. And the last one
 17 I was involved in, and this was certainly
 18 behind the scenes, was in the Industrial
 19 Customer RSP. I was still employed with
 20 Abitibi and they had a limited role in that
 21 one and we were represented by Mr. Gregory
 22 Moores at the time, and I worked with him on
 23 that. So my experience has been over the
 24 course of 25 years now.
 25 O'REILLY, Q.C.:

Page 63

1 Q. Did you ever testify before a regulatory body?
 2 MR. DEAN:
 3 A. I testified before this regulatory body three
 4 times now. This is my fourth right now. And
 5 also put in the pre-filed evidence a year ago.
 6 O'REILLY, Q.C.:
 7 Q. Okay. Mr. Dean, in your reports, your expert
 8 reports that were filed, covered a number of
 9 areas and we subsequently have had, of course,
 10 a settlement agreement and a further
 11 settlement agreement has been signed by the
 12 parties which we hope will be -- or anticipate
 13 will be accepted by the Board. As a result of
 14 that, I guess some of the issues that you
 15 canvassed in your report, have been, to use
 16 the phrase, taken off the table, I assume.
 17 With particular reference to your June 4th,
 18 2015 report, the areas that you generally
 19 covered in that report was firstly methodology
 20 of the O&M, calculation of O&M charges,
 21 classification of wind energy, Holyrood
 22 classification and Industrial Customer second
 23 block energy rate, and lastly, the 2014
 24 revenue requirement. Now of those five
 25 categories, wind energy, the Holyrood

Page 64

1 classification and the second block energy
 2 rate have been the subject of a settlement
 3 agreement, leaving only two.
 4 MR. DEAN:
 5 A. That is correct, yes.
 6 O'REILLY, Q.C.:
 7 Q. So subject to that, could you review
 8 generally, just with the Board, the matter of
 9 the methodology rate -- methodology
 10 calculation, I'm sorry, of the O&M charges?
 11 MR. DEAN:
 12 A. O&M has been something as we heard several
 13 times yesterday, and I go back to when I first
 14 got retained by Vale on this. The way they
 15 explained it, they said "we don't know what's
 16 going on. Hydro installed 11 million dollars
 17 worth of lines and transformers and we paid
 18 for it." When you look at the detail, that's
 19 about 97 percent correct. There's a little
 20 bit of bits and pieces that Hydro added, but
 21 in general, almost all of that 11 million
 22 dollars was paid for by Vale. Yet, in the
 23 first application, they're being charged
 24 \$533,000 a year. That's now reduced to just
 25 slightly under half a million, 599 or 499,

Page 65

1 pardon me. So that's where it started from
 2 and started going through the cost of service
 3 and it was fairly easy to see that yes, the
 4 assets that serve only Vale would be assigned
 5 to them, and when you look at it, it goes back
 6 to 1978. Apparently it was first ruled on
 7 then or maybe before. I didn't go back any
 8 further.
 9 So then you go at the next level.
 10 Hydro's total O&M charges for the whole system
 11 is divided on the basis of plant and service.
 12 I was able to confirm, after the third round
 13 of RFIs, that it was based on the original
 14 cost of the plant and service, and I said
 15 "whoa, something just doesn't add up here."
 16 We're comparing 2012 dollars against assets
 17 that could be as old as 1968 and there's no
 18 consideration for the time value of money
 19 taken into account here. So that's where we
 20 started looking at how can we make this equal
 21 for all parties here and do the equitable
 22 thing. And we had some difficulty in getting
 23 all the information we want, but I'm very
 24 pleased to say that Hydro has responded and
 25 it's the RFI V-NLH-083, Revision 1.

Page 66

1 O'REILLY, Q.C.:
 2 Q. Probably we can ask that that be brought up.
 3 MR. DEAN:
 4 A. Yeah, okay. 083, that's it. As you go
 5 through that one, Hydro has used a very
 6 similar method to what I had suggested and
 7 that's to index the cost to 2015 dollars. And
 8 can we just scroll down a little further,
 9 please? Just go down through -- if you keep
 10 on going down there. I don't have that one --
 11 I must have it in front of me here too, the
 12 alternate approach. And if we just read
 13 there, the alternate approach, and this is
 14 what Hydro responded to rate everything at
 15 2015 dollars. And this is a very similar
 16 thing that you would see in many other cases.
 17 I first got introduced to consumer price
 18 indexes back in university in the '60s and so
 19 I was very, very surprised that these charges
 20 weren't indexed through a common base. I'm
 21 really happy to see that there is something on
 22 the table from both myself and from Hydro
 23 showing that this is a fair and equitable
 24 approach.
 25 O'REILLY, Q.C.:

Page 67

1 Q. Do you agree with Hydro's recalculation of the
 2 O&M charges for the Industrial Customers as
 3 set out in that RFI response?
 4 MR. DEAN:
 5 A. I agree entirely. It did differ from mine,
 6 but mine were based on a number of
 7 assumptions, due to a lack of total
 8 information, and when I look at the difference
 9 between ours, it's only in the range of 17
 10 percent, I believe. So, I think that was
 11 pretty good. I will accept theirs.
 12 O'REILLY, Q.C.:
 13 Q. Okay. Mr. Dean, the other item covered in
 14 your evidence -- and I should ask firstly, do
 15 you adopt -- subject to what you've said about
 16 this, the O&M charges now, do you adopt your
 17 file, pre-filed evidence, subject to your oral
 18 evidence here this morning?
 19 MR. DEAN:
 20 A. Yes, I do. I accept it, yes.
 21 O'REILLY, Q.C.:
 22 Q. Okay. And the other item is the revenue
 23 requirement. Do you want to speak to that?
 24 MR. DEAN:
 25 A. I'll speak briefly to that. There's a

Page 68

1 deferral for the revenue deficiency that it's
 2 called from 2014, 45.9 million dollars, which
 3 is significant amount of money. I think
 4 there's three areas in there that I -- you see
 5 in the evidence, I didn't make any solid
 6 recommendations to the Board. I just wanted
 7 to make sure that it didn't get lost in the
 8 process. The first was the items which may be
 9 imprudent and I think that's been very well
 10 explored between the Liberty report and the
 11 correspondence back in view of that report. I
 12 think that has been very well viewed.
 13 I particularly talked about the -- asked
 14 questions on the maintenance on transformers
 15 and breakers in particular. So that was the
 16 first part of that. The second part was what
 17 is the proper ROE to charge for 2014. Now I'm
 18 not in a position to get into the legality of
 19 that. I just wanted to make sure that it
 20 didn't get forgot about in the volumes of --
 21 not pages, but the volumes of books here.
 22 During the submission for this deficiency,
 23 both Newfoundland Power and Vale mentioned the
 24 fact that the existing ROE was -- what is it,
 25 4.4 percent I believe, and now it's -- what

Page 69

1 was in there was based on 8.8. I cannot
 2 really say -- I believe that's more of a legal
 3 decision. It's 20 million dollars there that
 4 I didn't want it to be forgot.
 5 (10:30 a.m.)
 6 The third thing on this one, and very
 7 important for Vale, a new customer whose load
 8 is growing, is deferrals. If these deferrals
 9 are not covered by existing funds in the RSP,
 10 then it would be covered by future rates, and
 11 when you get load growth for one customer, it
 12 means that they're picking up a higher share
 13 of yesterday's cost, which is a concern for my
 14 client. I think that summarizes that.
 15 O'REILLY, Q.C.:
 16 Q. Thank you, Mr. Dean. Those are all the
 17 questions on direct examination, Mr. Chairman.
 18 CHAIRMAN:
 19 Q. So I understand now we're going to take our
 20 break. Is that correct?
 21 MS. GLYNN:
 22 Q. Yes, we are going to take our half-hour break.
 23 O'REILLY, Q.C.:
 24 Q. Thank you.
 25 CHAIRMAN:

Page 70

1 Q. Okay.
 2 (BREAK - 10:31 a.m.)
 3 (RESUME - 11:13 a.m.)
 4 CHAIRMAN:
 5 Q. So I understand before we proceed to the
 6 witness, Mr. Johnson, you have a matter which
 7 you wish to raise?
 8 JOHNSON, Q.C.:
 9 Q. Yes, I do, Mr. Chairman. I guess in keeping
 10 with trying to make sure that the request for
 11 undertaking are very clear and as precise as
 12 possible, we prepared a written request for
 13 undertaking that bears a date October 1st.
 14 It's been distributed. It pertains to the
 15 issue that has been addressed the last couple
 16 of days in terms of the adjustment to the 2015
 17 test -- or the forecast load, and we're
 18 providing these. We understand that Hydro, at
 19 this point, is not able to say whether they
 20 can accept the undertaking, but we wish to
 21 table it because we regard the information as
 22 being helpful, particularly when Mr. Fagan
 23 comes on the stand. And so that's there for
 24 that.
 25 CHAIRMAN:

Page 71

1 Q. Okay.
 2 MR. YOUNG:
 3 Q. Mr. Chair, I guess I can speak to that at this
 4 point, as to the uncertainty about being able
 5 to provide the answer. If the Board has seen
 6 it, I'm not sure they have, it's a fairly
 7 involved one and some discussions have already
 8 commenced as to what's going to be required to
 9 answer that properly, and at this point, we're
 10 not able to commit. We might be able to have
 11 an opportunity to speak with Mr. Johnson over
 12 the next couple of days, but at this point,
 13 we're not able to commit that we can actually
 14 provide that information for Mr. Fagan's
 15 appearance on the stand, but we're going to
 16 have a good hard look at it to see.
 17 CHAIRMAN:
 18 Q. You will do your best, sir.
 19 MR. YOUNG:
 20 Q. We will indeed.
 21 CHAIRMAN:
 22 Q. Okay. So, you're finished with your witness,
 23 Mr. O'Reilly?
 24 O'REILLY, Q.C.:
 25 Q. I am, Mr. Chairman. I am.

Page 72

1 CHAIRMAN:
 2 Q. So does Hydro have any questions?
 3 MR. YOUNG:
 4 Q. No, we don't. Thank you, Mr. Chairman.
 5 CHAIRMAN:
 6 Q. Does Light and Power have any questions.
 7 MR. MELVIN DEAN, CROSS-EXAMINATION BY MR. LIAM O'BRIEN
 8 MR. O'BRIEN:
 9 Q. Just a couple, Mr. Chair. Mr. Dean, you'd
 10 mentioned in your direct, I believe, that
 11 there was two options in terms of the
 12 specifically assigned charges. You had put
 13 forward a proposal yourself and I think then
 14 you indicated that with one the RFIs, Hydro
 15 had put forth an alternative proposal for
 16 dealing with the time value of money for
 17 specifically assigned charges. Have you done
 18 any research yourself to see if either one of
 19 those options have been used in other
 20 jurisdictions?
 21 MR. DEAN:
 22 A. I have looked mainly online, and I must say
 23 that there's very little information online.
 24 In fact, even when you look in this
 25 jurisdiction, you can't see exactly how

Page 73

1 specific calculated charges is done. What you
 2 can see though, I keep going back to indexing
 3 because this is what they are, this Board has
 4 ruled on indexing in at least two different
 5 areas and that was V-125, which was answered
 6 by Hydro. And Newfoundland Power is one of
 7 the people that use it in their construction
 8 in aid of -- what is it, construction in aid
 9 of -- CIAC anyway.
 10 And also, they use it in terms of
 11 evaluating the replacement cost for insurance
 12 purposes and I also notice in estimates
 13 there's quite often -- for the budget items,
 14 there's an escalator used. That's a form of
 15 an index. So the fact that indexes are being
 16 used is nothing new in the regulatory
 17 industry.
 18 (11:15 a.m.)
 19 MR. O'BRIEN:
 20 Q. Okay. And in terms of with respect to how you
 21 would deal with specifically assigned charges
 22 and O&M, have you seen it used, indexing used
 23 in that fashion before?
 24 MR. DEAN:
 25 A. No, as I said, I really was not able to find

Page 74

1 anything that says they do or they don't. I
 2 could not find anything, very little out
 3 there, unless you are in the jurisdiction
 4 itself, very little out there.
 5 MR. O'BRIEN:
 6 Q. Okay. I have no further questions for Mr.
 7 Dean.
 8 CHAIRMAN:
 9 Q. Mr. Johnson.
 10 MR. MELVIN DEAN, CROSS-EXAMINATION BY THOMAS JOHNSON,
 11 Q.C.
 12 JOHNSON, Q.C.:
 13 Q. Okay. Thank you very much. Mr. Dean, I have
 14 a few questions for you. Obviously, Mr. Dean,
 15 you've been through the wars, in terms of, you
 16 know, going back over the years '80s, the
 17 '90s, et cetera, and cost of service, and
 18 you've got a long institutional memory on a
 19 lot of what we're talking about here, so I
 20 appreciate that. But I do wish to confirm, for
 21 the record, that whenever you've given
 22 evidence in the past to the Board, you were an
 23 employee of Abitibi? Would that be correct?
 24 MR. DEAN:
 25 A. That is correct, yes.

Page 75

1 JOHNSON, Q.C.:
 2 Q. Right. And can I ask you to clarify an issue
 3 for me. Mr. Dean, your pre-filed evidence
 4 states that you have provided expert evidence
 5 before the Public Utilities Board in '92, '01
 6 and '03. Your pre-filed evidence refers to it
 7 as expert evidence. Are you aware of that?
 8 MR. DEAN:
 9 A. Yeah, I noticed that word was in there.
 10 Perhaps a better word would have been evidence
 11 alone or else the previous ones was factual
 12 evidence of where we were from the situation
 13 of how power affected the paper mill.
 14 JOHNSON, Q.C.:
 15 Q. Right. Right, okay, and that's fair, because
 16 I understood that that's precisely the type of
 17 evidence that you gave, for instance, about
 18 the business operations of Abitibi and how
 19 they might be affected by a rate request and
 20 efforts that were being taken to minimize
 21 costs at the mill and newsprint market
 22 conditions and that type of thing.
 23 MR. DEAN:
 24 A. Yeah. Excuse me, Mr. Young, right in the
 25 exact direct line -

Page 76

1 MR. YOUNG:
 2 Q. Oh, I'm sorry.
 3 MR. DEAN:
 4 A. Thank you.
 5 JOHNSON, Q.C.:
 6 Q. Did you hear me, Mr. Dean?
 7 MR. DEAN:
 8 A. Yes, I heard you.
 9 JOHNSON, Q.C.:
 10 Q. So that would be the understanding of the type
 11 of evidence you gave before?
 12 MR. DEAN:
 13 A. That's correct, yes.
 14 JOHNSON, Q.C.:
 15 Q. Okay. So in terms of this O&M cost situation,
 16 just to back up a little bit. On your direct,
 17 you indicated that Vale didn't know what was
 18 going on with the O&M charge, and did -- do
 19 you have any degree of knowledge as to
 20 discussions that Vale held with Hydro when
 21 they were setting up to become an Industrial
 22 Customer on our system?
 23 MR. DEAN:
 24 A. No, not in particular, no. I did read what
 25 their contract was, but they were certainly

Page 77

1 shocked -- my point was they were certainly
 2 shocked by a bill for half a million dollars a
 3 year after having reimbursed Hydro for
 4 virtually all of the 11 million dollars.
 5 JOHNSON, Q.C.:
 6 Q. To your knowledge, did the contract deal with
 7 how O&M costs would be handled?
 8 MR. DEAN:
 9 A. I don't believe it's in any of the industrial
 10 contracts and they're pretty standard.
 11 JOHNSON, Q.C.:
 12 Q. Okay. Perhaps Vale could undertake to provide
 13 a copy of the contract that was entered into
 14 with Hydro and that would be helpful for us to
 15 have on the record. Is that a problem, Mr.
 16 O'Reilly?
 17 O'REILLY, Q.C.:
 18 Q. Can I take that under advisement? I'm not -
 19 MS. GLYNN:
 20 Q. Your mic, Mr. O'Reilly.
 21 O'REILLY, Q.C.:
 22 Q. I'm sorry. Mr. Chairman, I take that under
 23 advisement. I'd need to see if there is any
 24 commercially sensitive -
 25 CHAIRMAN:

Page 78

1 Q. Sure, proprietary information.
 2 O'REILLY, Q.C.:
 3 Q. Yeah. I just don't know. I mean, I'm not
 4 avoiding it. I mean, if it's otherwise then -
 5 JOHNSON, Q.C.:
 6 Q. That's fair.
 7 CHAIRMAN:
 8 Q. I think that's fair.
 9 JOHNSON, Q.C.:
 10 Q. Yeah, that's fair. That's fair.
 11 O'REILLY, Q.C.:
 12 Q. Is that fair enough?
 13 JOHNSON, Q.C.:
 14 Q. Oh, that's fair enough, yeah.
 15 O'REILLY, Q.C.:
 16 Q. Okay, thank you.
 17 MS. GLYNN:
 18 Q. We will note it on the undertaking as a record
 19 -- or note it on the record as an undertaking.
 20 MR. YOUNG:
 21 Q. Mr. Chair, just -
 22 O'REILLY, Q.C.:
 23 Q. I think it's more of my undertaking, isn't it,
 24 to -
 25 JOHNSON, Q.C.:

Page 79

1 Q. Yeah.
 2 MR. YOUNG:
 3 Q. Mr. Chair, I can have a conversation with Mr.
 4 O'Reilly afterwards to clarify this insofar as
 5 I understand the question.
 6 O'REILLY, Q.C.:
 7 Q. Okay.
 8 MR. YOUNG:
 9 Q. It may already be filed.
 10 O'REILLY, Q.C.:
 11 Q. All right, okay.
 12 MR. YOUNG:
 13 Q. Available on the Public Utilities Board
 14 website in fact, depending on what the nature
 15 of the question is.
 16 O'REILLY, Q.C.:
 17 Q. So just, yeah, so I understand that what
 18 you're looking for is the contract, the
 19 service contract, or is it the construction
 20 arrangement?
 21 JOHNSON, Q.C.:
 22 Q. Well, I guess I'm not quite sure what it is,
 23 to be honest with you. Just something -
 24 O'REILLY, Q.C.:
 25 Q. How will I know when I've got it?

Page 80

1 JOHNSON, Q.C.:
 2 Q. - something that sets the terms for which Vale
 3 was coming on, what they were responsible to
 4 pay, you know, how O&M was going to be
 5 handled. I don't know what document it's in.
 6 I couldn't tell you.
 7 MR. YOUNG:
 8 Q. Mr. Chair, I can speak to that to some degree,
 9 having been involved in it. So, there are --
 10 obviously there's a service contract for
 11 electrical service. There's also a
 12 construction agreement that was considered by
 13 the Board because contribution from customers
 14 had to be approved. And that is available on
 15 the website. I don't know if there's another
 16 document that Mr. Johnson may be considering
 17 that may exist, so I won't speak for him on
 18 that. But those two documents are publicly
 19 available.
 20 O'REILLY, Q.C.:
 21 Q. One of the documents I know is available as an
 22 Appendix to Order P.U. 6 of 2012. It's the
 23 Power Service Agreement. That's Schedule A to
 24 that Order. It's part of a Board Order.
 25 MR. YOUNG:

Page 81

1 Q. Right.
 2 JOHNSON, Q.C.:
 3 Q. What I'll do in light of that, Mr. Chairman,
 4 is I'll review the attachment to P.U. 6 (2012)
 5 and if that doesn't answer my question, I'll
 6 just bring it back up again before the Board.
 7 MR. YOUNG:
 8 Q. And just for the benefit of Mr. Johnson,
 9 there's an earlier order also that deals with
 10 the construction agreement.
 11 JOHNSON, Q.C.:
 12 Q. Okay.
 13 MR. DEAN:
 14 A. If I could clarify, Mr. Chair, I was referring
 15 -- the ones that I've seen is the ones that's
 16 been approved by the Public Utilities Board.
 17 JOHNSON, Q.C.:
 18 Q. Okay.
 19 MR. DEAN:
 20 A. So they would be public. I have no knowledge
 21 of any other ones that may have existed, and I
 22 wasn't referring to them. That was the
 23 interpretation.
 24 JOHNSON, Q.C.:
 25 Q. In terms of trying to ascertain practices

Page 82

1 elsewhere on how O&M would be handled for an
 2 industrial customer, did you investigate what
 3 Vale's situation would be, for instance in
 4 Sudbury?
 5 MR. DEAN:
 6 A. What Vale's situation would be in Sudbury?
 7 JOHNSON, Q.C.:
 8 Q. Yeah, as regards responsibility for O&M?
 9 MR. DEAN:
 10 A. No, I did not, no.
 11 JOHNSON, Q.C.:
 12 Q. Okay. Because they have a big operation in
 13 Sudbury as well, okay. So what we're talking
 14 about here in terms of the assets that are
 15 specifically assigned to Vale and which they
 16 paid 11 million dollars for is about 20
 17 kilometres worth of -- or 20 kilometres of
 18 transmission line, terminal station, two
 19 transformers and related switch gear? That's
 20 your understanding?
 21 MR. DEAN:
 22 A. Yes, approximately 20 kilometres. I don't
 23 have the exact number, but roughly.
 24 JOHNSON, Q.C.:
 25 Q. No, and close enough.

Page 83

1 MR. DEAN:
 2 A. Yeah.
 3 JOHNSON, Q.C.:
 4 Q. And as I understand it, Mr. Dean, as opposed
 5 to the O&M, OM&A charge being 437,000, which
 6 Vale takes exception to, your report puts
 7 forward a number of \$87,742 for the OM&A
 8 charge. Would that be right?
 9 MR. DEAN:
 10 A. I'd have to check the number, but that sounds
 11 about right, yes.
 12 JOHNSON, Q.C.:
 13 Q. Just to look at your report, it's at page ten
 14 at line 25.
 15 MR. DEAN:
 16 A. Yeah, that's correct, yes.
 17 JOHNSON, Q.C.:
 18 Q. Okay. And just for clarity for on the record,
 19 that's not the number, I take it, that Hydro
 20 is now saying that they would think you could
 21 pay. It's a bit higher than 87, and you find
 22 that number reasonable?
 23 MR. DEAN:
 24 A. Yeah, it would be about 60,000 more than that
 25 approximately, yeah.

Page 84

1 JOHNSON, Q.C.:
 2 Q. Okay. So in round figures, about 150,000?
 3 MR. DEAN:
 4 A. Yeah, I accept that, yes.
 5 JOHNSON, Q.C.:
 6 Q. Okay, all right. And so, that would bring
 7 your annual OM&A down to about say one and a
 8 half percent of the original expenditure
 9 amount, in that vicinity?
 10 MR. DEAN:
 11 A. For the OMA only, you mean?
 12 JOHNSON, Q.C.:
 13 Q. Right.
 14 MR. DEAN:
 15 A. It was 436, so whatever 150 is over 436.
 16 JOHNSON, Q.C.:
 17 Q. No, what I'm referring to is comparing the 150
 18 to about 11 million dollars in capital
 19 expenditures?
 20 MR. DEAN:
 21 A. Oh, okay, yes, that would - that's roughly
 22 right, yes.
 23 JOHNSON, Q.C.:
 24 Q. Okay, and if we went by the original amount
 25 that Vale takes exception to, the 437,000,

Page 85

1 that would be about 4 percent of the 11
 2 million dollar more or less expenditure?
 3 MR. DEAN:
 4 A. Uh-hm, the mathematics is right. If I could
 5 further comment on that -
 6 JOHNSON, Q.C.:
 7 Q. Yeah, well, I guess - listen, I'll get you to
 8 comment as much as you want on it. I just
 9 want to ask you this question.
 10 MR. DEAN:
 11 A. Uh-hm.
 12 JOHNSON, Q.C.:
 13 Q. If the OM & A is about 437 or about 4 percent
 14 of the original cost, do you have any evidence
 15 from anywhere that would indicate that that
 16 would be an unreasonable amount of OM & A on
 17 such assets?
 18 MR. DEAN:
 19 A. Okay, this is where it's very - it's not quite
 20 a yes or no question, in my mind. You know,
 21 you can look at, and this is a way that most
 22 customers, I think, think about the OMA, they
 23 think about it as being assets particularly
 24 for their property, their transmission line,
 25 and their transformers, but when you look at

Page 86

1 it in that light, you say, oh, so it's just
 2 the maintenance on that, but that's not how
 3 it's calculated. It's calculated on the basis
 4 of ratio, and that ratio is on the original
 5 cost of the specific plant and service, so
 6 it's a different ratio. We're not looking at
 7 the direct cost at all. So it would be a
 8 completely different calculation if you looked
 9 at the actual cost.
 10 JOHNSON, Q.C.:
 11 Q. Uh-hm.
 12 MR. DEAN:
 13 A. Also included in the OMA, about 50 percent of
 14 the OMA charge is nothing to do with the
 15 assets feeding Hydro, it has to do with the
 16 general stuff, the control centre, the Hydro
 17 centre here, the telecommunications, stuff of
 18 a general nature. So just looking at the cost
 19 of the line over the long term, a maintenance
 20 cost, I don't think it gets us to where we - I
 21 don't think we're comparing apples and apples
 22 here at all.
 23 JOHNSON, Q.C.:
 24 Q. So if I can understand this sort of
 25 conceptually for a moment, let us say that the

Page 87

1 OM & A amount that gets picked up by Vale
 2 decreases from the 437,000 down to the
 3 150,000, okay, what would - who would pick up
 4 the rest of the expenses in the test year?
 5 MR. DEAN:
 6 A. What we'd be doing there is that we would be
 7 comparing equal dollars throughout. We'd be
 8 comparing 2012 dollars with the average of the
 9 system, so they'd be distributed fairly and
 10 equitably, and so in that case if you have
 11 newer assets, the way it is set up by Hydro
 12 and the cost of service, Vale is being
 13 overcharged strictly because they're a new
 14 customer. So the people that would end up
 15 paying more would be those who have the older
 16 assets on the system, and in this case it most
 17 likely would be Hydro that picked that up, and
 18 really that would become a common expense.
 19 JOHNSON, Q.C.:
 20 Q. Okay.
 21 MR. DEAN:
 22 A. And that common expense then gets split out by
 23 demand ratios, as you know.
 24 JOHNSON, Q.C.:
 25 Q. Right, okay, and if Hydro were to develop the

Page 88

1 specifically assigned O & M costs according to
 2 your preferred methodology, what criteria
 3 would you suggest be applied to determine the
 4 reasonableness of that methodology, as
 5 yesterday Mr. Bowman, Patrick Bowman, referred
 6 to in his presentation in terms of the
 7 criteria to get at the reasonableness of the
 8 number? Can you help us on that?
 9 MR. DEAN:
 10 A. Yeah, the reasonableness is always a
 11 subjective thing, you know, what's reasonable
 12 to one party may not be reasonable to another,
 13 but I have to agree that you will look at it
 14 and say does this look reasonable, and I would
 15 think that Vale, when they first looked at the
 16 bill, they saw what was being proposed in the
 17 original cost of service, they looked at it
 18 and said this isn't reasonable, what's going
 19 on here, and actually that's when I got called
 20 in, as well as the rest of the stuff. I took
 21 a look at the end result when I was finished
 22 and I also said, okay, I accept that it should
 23 be prorated on the basis of the plant and
 24 service provided that we're using equal
 25 dollars. Now I'm not totally convinced that's

Page 89

1 the best way of doing it. If you go back a
 2 number of years, it may have been difficult to
 3 keep track of costs for each and every asset,
 4 but with the computer systems today, the ones
 5 I've seen in industry, you do keep track of
 6 each and every cost. So those could be a
 7 direct charge if you wanted, that's a
 8 possibility, but then you've got the general
 9 stuff, the administrative type of stuff, the
 10 general Hydro equipment that serves all
 11 customers, you have to take care of that
 12 somehow. So at this point, I certainly accept
 13 - well, first I accept that the assets get
 14 assigned to Vale. The second thing I accept
 15 is that the general idea of splitting the O &
 16 M on the basis of the plant and service, I
 17 accept that. It's only when we get the third
 18 level down into the actual calculation that
 19 you find the problem. I just cannot see how
 20 that is fair at all, that you're comparing new
 21 costs against old costs. That's why you have
 22 things like the Handy-Whitman Index just to
 23 bring everything to an equal basis.
 24 JOHNSON, Q.C.:
 25 Q. So would the 150,000 dollar proposed amount

Page 90

1 that you would find to be more in order, would
 2 that - is that supposed to represent a
 3 reasonable amount of how much those assets
 4 should cost to maintain, or is that - would
 5 that be a test here that we would look to?
 6 MR. DEAN:
 7 A. I think it would, and it should be comparable
 8 to what Hydro pays for a kilometre of line. I
 9 would expect most people would be on the same
 10 basis at that. With interest, I read through
 11 the frequency converters, and that one - as a
 12 previous industrial, somebody who worked in
 13 industry, I can see where they got hit with a
 14 big bill, and so at the end of the day, yes, I
 15 think you still have to look at being
 16 reasonable. Is it a reasonable cost, and I'm
 17 not going to go any further into their
 18 situation because obviously they've studied
 19 that much deeper than I have.
 20 JOHNSON, Q.C.:
 21 Q. So could a reasonable person likewise look at
 22 11 million dollars worth of assets and
 23 conclude 150,000 is too low?
 24 MR. DEAN:
 25 A. I don't see where anything in the method that

Page 91

1 I proposed or the method that Hydro has
 2 proposed to be unreasonable. I don't see it
 3 at this point, no.
 4 JOHNSON, Q.C.:
 5 Q. You don't see it, but you don't foreclose that
 6 somebody else might have another reasonably
 7 held view?
 8 MR. DEAN:
 9 A. When I first started working with lawyers back
 10 in the 1990s, they say there's always two
 11 arguments, it's just some are better than
 12 others. Yes, I'm sure somebody else could
 13 have that view.
 14 JOHNSON, Q.C.:
 15 Q. Mr. Dean, Hydro has talked in its operations
 16 evidence and in its filing about this bathtub
 17 curve where - and that probably is a term that
 18 you're familiar with in your line of work and
 19 experience, I take it, would that be fair?
 20 MR. DEAN:
 21 A. I have heard of it before, and I've certainly
 22 heard about it from this hearing, yes.
 23 JOHNSON, Q.C.:
 24 Q. And the - is there any independent evidence on
 25 the record that you're aware of that would

Page 92

1 tell us that that bathtub model of more
 2 expense at the early end, and then flattening
 3 out and then increasing at the end, that that
 4 would not apply to a terminal station or to
 5 switch gear or to a transmission line?
 6 MR. DEAN:
 7 A. There is no evidence on the record at this
 8 point. I had hoped that the operations
 9 people, their panel, would have continued,
 10 because I have some serious problems with that
 11 for a transmission line and for transformers,
 12 the bathtub curving, how applicable it is for
 13 them, and I'm not a reliability engineer, I'm
 14 not going to pretend I am, but my
 15 understanding of the bathtub curve, it started
 16 out essentially in the electronics and
 17 electronic components, and, yes, when you
 18 first turn on an electronic component, it
 19 could fail, but if it starts working, it's
 20 probably going to work for quite a period of
 21 time. Now transformers, I personally
 22 installed a new transformer, I put on line a
 23 transformer that was brand new, but hadn't
 24 been used for a number of years, and I put in
 25 the service of transformers after they'd been

Page 93

1 completely rewind, and let me tell you before
 2 we put them on line, we were 99.9 percent
 3 confident that they were going to work and
 4 work satisfactorily. You do all the testing
 5 beforehand to assure yourself of that. So
 6 normally then things can go wrong a little
 7 bit. If you do your proper testing
 8 throughout, it'll last quite a period of time,
 9 and then when you get to the end of their
 10 life, the insulation starts to break down and
 11 that's when the failures start, and you
 12 attempt to take them out of service before
 13 they actually fail. Transmission lines and
 14 the components of the transmission line, I am
 15 thinking that that would follow the same, but
 16 that would be subject to what some of the
 17 operations people have to say. In my
 18 experience, I expect to see that.

19 JOHNSON, Q.C.:

20 Q. And in fairness, the way you prefaced it, I
 21 accept that, on your experience, but you would
 22 have to defer to others who are more used to
 23 the utility assets, would that be fair?

24 MR. DEAN:

25 A. I'm thinking probably - well, that and also

Page 94

1 people who are - reliability engineering is a
 2 big thing today, and that is not something
 3 I've ever been involved with to the extent and
 4 the way it is today.

5 JOHNSON, Q.C.:

6 Q. Thank you very much, Mr. Dean. Those are my
 7 questions for you.

8 MR. DEAN:

9 A. Thank you.

10 CHAIRMAN:

11 Q. Mr. Coxworthy?

12 MR. COXWORTHY:

13 Q. No questions from industrial customers, thank
 14 you.

15 GREENE, Q.C.:

16 Q. And I have no questions, Mr. Chair.

17 MS. WHALEN:

18 Q. No questions, thank you, Mr. Dean.

19 CHAIRMAN:

20 Q. Back to re-direct, I'm sorry.

21 O'REILLY, Q.C.:

22 Q. I have no re-direct, Mr. Chairman.

23 CHAIRMAN:

24 Q. I guess we are adjourned, is that correct?

25 MS. GLYNN:

Page 95

1 Q. It is, Mr. Chair.
 2 (UPON CONCLUDING 11:39 a.m.)

Page 96

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

<p>-\$-</p> <p>\$1.00 [1] 20:14 \$1.50 [1] 21:14 \$15.00 [1] 15:9 \$533,000 [1] 64:24 \$8.11 [2] 15:5,7 \$87,742 [1] 83:7 \$9.13 [1] 15:1 \$93.00 [1] 28:8</p> <hr/> <p>-&-</p> <p>& [5] 85:13,16 87:1 88:1 89:15</p> <hr/> <p>-'-</p> <p>'01 [1] 75:5 '03 [2] 40:7 75:6 '06 [3] 2:14 40:7 45:18 '08 [1] 46:25 '15 [1] 35:23 '16 [1] 35:23 '60s [1] 66:18 '80s [1] 74:16 '90s [2] 62:14 74:17 '92 [1] 75:5</p> <hr/> <p>-0-</p> <p>083 [2] 48:21 66:4</p> <hr/> <p>-1-</p> <p>1 [6] 1:1 14:24 24:25 29:6 48:21 65:25 1.3 [1] 21:21 1.7 [1] 47:6 10.18 [1] 35:1 100 [1] 11:10 106 [1] 16:5 10:00 [1] 52:7 10:08 [1] 59:18 10:15 [1] 59:19 10:30 [1] 69:5 10:31 [1] 70:2 11 [11] 34:8,10,10,11 64:16,21 77:4 82:16 84:18 85:1 90:22 11:13 [1] 70:3 11:15 [1] 73:18 11:39 [1] 95:2 12 [1] 20:14 13 [1] 14:24 140 [3] 52:23 53:7,8 15 [4] 24:6,7,14 61:10 150 [3] 52:22 84:15,17 150,000 [4] 84:2 87:3 89:25 90:23 161 [1] 53:8 17 [1] 67:9</p>	<p>17.2 [1] 47:1 18 [1] 46:23 19.6 [1] 21:9 1968 [1] 65:17 1978 [2] 61:19 65:6 1990 [3] 62:1,4,7 1990s [2] 60:18 91:10 1992 [2] 62:10,13 1st [3] 70:13 96:5,11</p> <hr/> <p>-2-</p> <p>2 [3] 21:5 26:25 37:25 20 [6] 21:16 32:20 69:3 82:16,17,22 2001 [4] 11:5,13 40:14 62:10 2003 [3] 11:14 40:17 62:11 2006 [2] 2:2 52:19 2008 [3] 46:15,18 47:24 2009 [1] 42:10 2011 [1] 61:19 2012 [8] 46:15,18 47:1 47:25 65:16 80:22 81:4 87:8 2013 [8] 2:14 16:18,18 16:19 17:12 19:23 30:20 36:14 2014 [9] 13:10 14:4 17:9 22:9 30:17 60:8 63:23 68:2,17 2015 [23] 1:1 13:8 27:6 28:17 29:3,16,19,25 32:20,21 33:3,14 34:5 37:1,5,6 60:9 63:18 66:7 66:15 70:16 96:5,11 2016 [5] 28:17 29:1,2,16 32:20 2017 [10] 28:5,10,18 29:1 29:2,4,16,23,24 32:21 22.5 [2] 47:5,5 24 [1] 47:20 25 [2] 62:24 83:14 25th [1] 60:8 26 [2] 17:8 47:20 27.667 [1] 21:23 28 [3] 21:1 22:2,9 28.955 [1] 21:23 28th [3] 17:9 22:9 31:11 29 [2] 14:6 31:15</p> <hr/> <p>-3-</p> <p>3 [2] 31:15 38:4 30 [1] 22:3 321 [1] 28:7 328 [2] 52:23 53:7 34 [2] 14:7,7 361,750 [1] 27:21 37.6 [6] 43:12 44:2,10,18 46:13 47:6 39 [1] 5:4</p>	<p>-4-</p> <p>4 [3] 27:4 85:1,13 4.4 [1] 68:25 4.9 [1] 21:9 40 [1] 32:20 41 [3] 25:8 26:12 61:8 42 [1] 1:8 436 [2] 84:15,15 437 [1] 85:13 437,000 [3] 83:5 84:25 87:2 45.9 [1] 68:2 499 [1] 64:25 4th [2] 60:9 63:17</p> <hr/> <p>-5-</p> <p>5 [1] 31:15 5.2 [1] 28:12 5.4 [1] 28:12 5.5 [1] 28:12 50 [2] 28:9 86:13 599 [1] 64:25</p> <hr/> <p>-6-</p> <p>6 [2] 80:22 81:4 60,000 [1] 83:24 627.3 [1] 47:23 69 [1] 17:25</p> <hr/> <p>-7-</p> <p>7.59 [1] 21:14 7238 [1] 27:6 7503 [1] 27:8 7590 [1] 27:9</p> <hr/> <p>-8-</p> <p>8 [4] 24:13 27:19 29:11 29:15 8.8 [1] 69:1 87 [1] 83:21</p> <hr/> <p>-9-</p> <p>9 [1] 34:9 9.13 [1] 21:13 9.72 [1] 35:1 97 [1] 64:19 99.9 [1] 93:2 9:07 [1] 1:2 9:15 [1] 7:7 9:30 [1] 20:24</p> <hr/> <p>-A-</p> <p>A.D [2] 96:5,11 a.m [11] 1:2 7:7 20:24 52:7 59:18,19 69:5 70:2 70:3 73:18 95:2 ability [6] 4:19 10:9 23:7</p>	<p>39:6 42:12 96:8 Abitibi [3] 62:20 74:23 75:18 able [10] 16:9 20:16 37:19 65:12 70:19 71:4,10,10 71:13 73:25 absolutely [2] 26:15,19 accept [13] 23:2 35:12 39:20 67:11,20 70:20 84:4 88:22 89:12,13,14 89:17 93:21 accepted [1] 63:13 according [1] 88:1 accordingly [1] 9:13 account [23] 4:18 5:22 6:5,24 7:22 8:2 9:12 10:19,24 12:7,11,16,19 40:19,22 41:2 43:16 44:9 44:13,20 45:24 51:24 65:19 accountant [1] 12:10 accrue [1] 39:9 accrued [3] 24:24 44:19 44:19 actual [5] 37:15 46:23 47:23 86:9 89:18 add [2] 61:8 65:15 added [4] 25:1 27:23 28:11 64:20 address [1] 34:15 addressed [3] 37:1,4 70:15 adjourned [1] 94:24 adjust [1] 36:16 adjusted [2] 13:12 21:13 Adjusting [1] 21:20 adjustment [3] 5:11,13 70:16 adjustments [1] 14:9 adjusts [1] 17:1 administrative [1] 89:9 admit [1] 39:25 adopt [2] 67:15,16 adopting [1] 5:7 advisement [2] 77:18 77:23 affected [2] 75:13,19 affirmation [1] 59:23 afterwards [1] 79:4 again [3] 31:15 53:8 81:6 against [3] 56:10 65:16 89:21 ago [1] 63:5 agree [12] 5:21 6:12,16 6:23 25:20 34:3 40:3 49:18,21 67:1,5 88:13 agreement [7] 28:16 63:10,11 64:3 80:12,23 81:10 agrees [2] 25:21,23 aid [2] 73:8,8 allocate [2] 31:6 34:16 allocated [2] 17:21 18:11</p>	<p>allocation [17] 13:23 14:8,11,13 15:10,19 19:15 20:7,18 24:23 30:5 30:11 31:21 34:25 55:10 55:20 57:2 allocations [1] 4:15 allocators [3] 16:12,14 35:14 almost [2] 3:3 64:21 alone [1] 75:11 along [2] 33:14 34:6 alternate [2] 66:12,13 alternative [1] 72:15 always [2] 88:10 91:10 amended [2] 38:1 49:10 amount [19] 10:1,6 16:20 16:24,25 17:1 19:9 37:20 37:21 39:13 44:2 47:20 68:3 84:9,24 85:16 87:1 89:25 90:3 analysis [5] 28:20,22 31:20,22 35:19 annual [8] 13:12 17:21 37:20 46:14,24 47:4,23 84:7 answer [7] 47:19 49:1 57:6 58:22 71:5,9 81:5 answered [1] 73:5 anticipate [1] 63:12 anyway [1] 73:9 apparatus [1] 96:9 appeal [2] 4:22 42:7 appearance [1] 71:15 Appendix [1] 80:22 apples [2] 86:21,21 applicable [1] 92:12 application [3] 62:15 64:23 96:5 applications [3] 5:24 60:17 62:12 applied [7] 32:1,11 35:5 47:3 52:25 53:14 88:3 apply [2] 53:4 92:4 Applying [1] 53:17 appreciate [1] 74:20 approach [13] 8:5 13:22 13:24 14:8,13,25 19:15 20:18 24:23 30:11 66:12 66:13,24 appropriate [2] 8:16 36:16 approved [3] 39:12 80:14 81:16 April [6] 13:10 14:4 17:8 22:9 31:11 60:8 area [1] 54:4 areas [4] 63:9,18 68:4 73:5 argue [1] 43:20 arguments [1] 91:11 arise [2] 3:25 37:16 arises [4] 27:1 34:5 35:10 45:9</p>
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<p>arose [3] 17:13,18 54:25 arrangement [1] 79:20 ascertain [1] 81:25 aspect [2] 11:25 12:2 asset [5] 51:3,3,5 57:14 89:3 assets [13] 51:18 65:4,16 82:14 85:17,23 86:15 87:11,16 89:13 90:3,22 93:23 assign [7] 34:7,11 35:14 35:25 49:3 58:15,17 assigned [15] 17:24 48:19 49:17 50:3 51:4 52:11 54:9 58:17 65:4 72:12,17 73:21 82:15 88:1 89:14 assigning [1] 18:1 associate [1] 40:18 associated [5] 10:13 18:7,12 27:23 57:13 assume [1] 63:16 assumed [1] 27:5 assumptions [1] 67:7 assure [1] 93:5 Atlantic [3] 17:14 33:13 52:13 attachment [3] 26:25 29:6 81:4 attempt [1] 93:12 attention [3] 5:4 11:8 38:4 attributed [1] 1:11 automatic [1] 5:12 available [6] 14:8 57:10 79:13 80:14,19,21 average [4] 46:24 47:4 47:23 87:8 avoiding [1] 78:4 aware [6] 48:17 49:2,9 49:16 75:7 91:25 away [2] 3:1,6</p> <hr/> <p style="text-align: center;">-B-</p> <hr/> <p>backwards [2] 8:4,13 bad [1] 41:12 balance [6] 11:11,23 12:23 43:23 44:7 46:9 balances [3] 38:7 39:9 48:5 balancing [1] 12:21 barrel [1] 28:8 bars [6] 18:8,9 19:3,4,9 37:7 base [2] 1:9 66:20 based [9] 12:22 21:7 27:12 28:8 39:11 46:23 65:13 67:6 69:1 basic [1] 60:21 basis [7] 18:1 65:11 86:3 88:23 89:16,23 90:10 bath tub [4] 91:16 92:1 92:12,15</p>	<p>bear [3] 40:14,20 42:3 bears [1] 70:13 become [2] 76:21 87:18 becomes [1] 9:16 becoming [1] 44:22 beforehand [1] 93:5 behalf [1] 13:15 behind [3] 31:20 46:11 62:18 beholder [1] 38:20 benefit [8] 33:22 34:4 44:2,5,12,14 45:19 81:8 benefited [1] 43:11 benefiting [1] 56:15 benefits [3] 3:9 9:9 56:22 benefitted [1] 43:20 best [10] 17:6 22:19 23:3 23:10,22 42:25 43:2 71:18 89:1 96:8 better [3] 23:16 75:10 91:11 between [8] 10:19 16:7 31:24 32:24 35:15 62:11 67:9 68:10 beyond [1] 42:20 big [6] 40:11 55:13 56:13 82:12 90:14 94:2 bigger [1] 34:8 bill [5] 39:2,11 77:2 88:16 90:14 billing [3] 16:15 17:17 36:22 billings [1] 46:24 bit [18] 7:9,16,25 8:2,4 12:25 13:7 14:19 21:15 24:1 38:2,19 39:20 45:8 64:20 76:16 83:21 93:7 bits [1] 64:20 blatantly [1] 27:3 block [2] 63:23 64:1 Board [18] 2:1 33:19 37:10 60:11 61:4 63:13 64:8 68:6 71:5 73:3 74:22 75:5 79:13 80:13 80:24 81:6,16 96:6 Board's [1] 42:12 body [2] 63:1,3 books [1] 68:21 bore [1] 40:15 borne [1] 45:20 bother [1] 9:1 bottom [3] 15:17 19:1 21:6 Bowman [132] 1:16,19 1:20,23 2:3,8,11,15 3:21 4:8,13,24 5:18 6:1,4,7 6:10,13,20 7:2,8 10:15 11:1 12:6,8 13:9,19,25 14:14,18 15:21 16:2 17:5 18:5 19:2,8,12,21 20:3 20:10,19,25 21:4,19,24 22:4,8,14 23:1,21 24:17 25:3,10,17,21,22,24 26:3 26:5,14,18,24 28:19,23</p>	<p>29:8,12,17,22 30:4,6,13 30:24 31:3,12,16 32:2,7 32:14,18 33:2 35:12,16 36:11,19 37:3,13 38:5 38:10,16 40:6 42:8,9,14 42:23 43:13,19 44:4 45:2 45:6 46:16,17 47:9,13 48:1,8,12,15,23 49:5,13 49:22 50:7,15,23 51:6 51:12,20 52:3,8 53:18 53:21 54:1,4,18,22 57:8 57:18 58:7,25 59:9 88:5 box [1] 41:17 brand [1] 92:23 break [6] 59:12,18 69:20 69:22 70:2 93:10 breakers [1] 68:15 bricks [3] 23:13,13 28:2 bridge [1] 45:11 brief [1] 60:12 briefly [1] 67:25 bring [9] 18:19 20:23 29:6 31:11 46:22 56:12 81:6 84:6 89:23 bringing [1] 38:4 broad [1] 61:11 broader [1] 7:19 Brook [5] 17:14 33:11 52:10,19 53:14 Brook's [2] 33:11 53:6 brought [3] 24:21 56:21 66:2 bucks [1] 24:13 budget [1] 73:13 build [3] 3:14 5:25 30:1 built [1] 57:14 bullet [1] 21:5 business [4] 5:5,14 26:8 75:18</p> <hr/> <p style="text-align: center;">-C-</p> <hr/> <p>CA-NLH-182 [1] 46:22 calculate [2] 18:6 48:18 calculated [4] 56:9 73:1 86:3,3 calculation [8] 50:14,22 51:25 54:9 63:20 64:10 86:8 89:18 cannot [2] 69:1 89:19 canvassed [1] 63:15 capacity [1] 16:13 capital [2] 55:18 84:18 capture [1] 34:19 captured [1] 34:5 care [1] 89:11 careful [4] 6:17 9:7 25:13 34:18 carried [2] 41:9 45:25 carve [3] 12:25 33:20 45:13 carving [1] 27:25 case [6] 3:7,17 6:4 8:11</p>	<p>87:10,16 cases [1] 66:16 catch [1] 11:8 categories [1] 63:25 causing [1] 13:2 caveat [1] 38:17 centre [2] 86:16,17 certain [3] 3:5 8:21,23 certainly [7] 7:6 11:3 62:17 76:25 77:1 89:12 91:21 CERTIFICATE [1] 96:1 certify [1] 96:2 cetera [1] 74:17 Chair [11] 59:5,25 60:15 71:3 72:9 78:21 79:3 80:8 81:14 94:16 95:1 Chairman [33] 1:3,13 48:10,15 53:22,24 59:2 59:7,11,20 60:1,6 69:17 69:18,25 70:4,9,25 71:17 71:21,25 72:1,4,5 74:8 77:22,25 78:7 81:3 94:10 94:19,22,23 chance [1] 4:6 change [6] 20:12 22:12 22:15 40:10 45:15 53:12 changed [7] 16:9,10,11 16:15,21 20:12,13 changes [9] 2:24 3:8,14 5:9 11:14 39:22 45:20 52:13,15 characteristics [1] 9:11 characterization [1] 23:2 characterize [2] 38:17 38:20 characterized [2] 19:14 38:14 charge [16] 14:25 15:7 17:17 20:11,13 53:6 55:18 56:6,8,9 68:17 76:18 83:5,8 86:14 89:7 charged [1] 64:23 charges [16] 48:19 49:3 49:18 50:2 52:12 54:9 63:20 64:10 65:10 66:19 67:2,16 72:12,17 73:1 73:21 check [1] 83:10 CIAC [1] 73:9 City [1] 1:11 claim [4] 45:23 46:1,2,3 claiming [1] 48:3 clarify [3] 75:2 79:4 81:14 clarity [2] 14:5 83:18 class [13] 17:24 18:2 21:20 22:18 24:9,25 34:16 36:16 38:21 40:13 44:1 46:15,25 classes [5] 15:2 31:24 32:24 35:15,18</p>	<p>classification [3] 63:21 63:22 64:1 clean [1] 41:17 clear [3] 7:13 26:11 70:11 clearer [1] 35:17 client [1] 69:14 close [1] 82:25 closures [1] 44:23 coincident [1] 14:11 column [2] 28:10 29:23 columns [1] 28:25 coming [1] 80:3 commenced [1] 71:8 commensurate [1] 10:13 comment [3] 4:9 85:5,8 commenting [1] 43:8 commercial [1] 55:6 commercially [1] 77:24 Commissioners [1] 96:6 commissioning [1] 22:24 commit [2] 71:10,13 common [5] 8:21 57:16 66:20 87:18,22 commonly [1] 49:19 companies [1] 61:16 comparability [1] 58:8 comparable [2] 53:9 90:7 compare [2] 56:1 58:11 compared [4] 9:21 43:20 43:21 49:20 compares [1] 46:14 comparing [6] 65:16 84:17 86:21 87:7,8 89:20 comparison [1] 16:6 complete [2] 19:18 50:14 completely [3] 25:20 86:8 93:1 complicated [1] 56:16 component [4] 35:6 39:5 40:9 92:18 components [5] 11:3 28:1 35:7 92:17 93:14 computer [1] 89:4 concept [2] 37:18 39:19 concepts [2] 7:15 45:10 conceptually [1] 86:25 concern [1] 69:13 concerned [1] 2:24 conclude [2] 16:10 90:23 concludes [1] 58:25 CONCLUDING [1] 95:2 conditions [2] 3:2 75:22 conducting [1] 51:2 confident [1] 93:3 confirm [4] 19:12,16 65:12 74:20</p>
--	---	---	---	---

<p>connected [1] 56:5 connection [3] 56:13 57:4 58:16 connections [6] 55:3,9 55:24 57:20 58:11,19 consider [1] 12:6 consideration [1] 65:18 considered [3] 51:10,13 80:12 considering [1] 80:16 consistent [1] 33:18 constructed [2] 12:5 55:19 construction [5] 73:7,8 79:19 80:12 81:10 consumer [1] 66:17 consumers [1] 5:14 CONT'D [1] 1:17 contention [1] 23:23 context [2] 8:20 42:25 continuation [1] 1:15 continue [1] 21:18 continued [1] 92:9 contract [6] 76:25 77:6 77:13 79:18,19 80:10 contracts [1] 77:10 contribution [1] 80:13 control [3] 9:6 10:9 86:16 conversation [1] 79:3 converters [1] 90:11 convinced [1] 88:25 copy [1] 77:13 core [1] 3:25 Corner [7] 17:14 33:11 33:11 52:10,19 53:6,14 correct [18] 13:18 22:15 49:4 50:6,14,22 51:5 54:17 59:13 64:5,19 69:20 74:23,25 76:13 83:16 94:24 96:3 correspondence [1] 68:11 cost [97] 2:23 4:1,18 5:8 5:9,11 6:24 9:22,25 12:12 13:8,11,23 14:8 14:13 15:9,10,19,24 16:5 16:7,11,12,18 17:12 18:11,14 19:15,18 20:7 20:18,20 21:11 23:25 24:7,13,23 25:1,14,15 26:6 27:20,23 28:17 29:3 30:11 31:20,21,23 32:23 33:3,24,25 34:16,24,25 35:14,25 36:17,21 39:12 45:16,19,20 50:20 51:11 51:15 55:21 56:4,6,9 57:2,4,16,22,23,24 62:3 62:13 65:2,14 66:7 69:13 73:11 74:17 76:15 85:14 86:5,7,9,18,20 87:12 88:17 89:6 90:4,16 costs [32] 3:15,20 19:19 23:7,8,12 24:6,10 26:13 31:6 33:8,15,21 34:2,7</p>	<p>34:11 35:2,3 39:4 45:15 50:12 51:4 56:21 57:13 62:3,5 75:21 77:7 88:1 89:3,21,21 Council [3] 43:10 44:1,7 couple [3] 70:15 71:12 72:9 course [4] 58:3,14 62:24 63:9 courses [1] 60:20 Court [1] 42:7 covered [6] 39:3 63:8,19 67:13 69:9,10 Coxworthy [3] 59:4 94:11,12 created [1] 51:25 credit [5] 39:17,18 44:7 56:11 57:24 credits [1] 41:8 criteria [2] 88:2,7 cross-examination [6] 1:16 48:12,16 54:1 72:7 74:10 current [2] 12:12 51:25 curve [2] 91:17 92:15 curving [1] 92:12 customer [38] 2:17 16:24 17:1 18:25 20:7 22:18 24:10 30:18,19 31:24 32:19,24 33:12,13 34:7 37:18 38:8,21 39:9 40:13 40:21 44:1 55:3,11,18 56:5,8,12,12 57:15 58:10 62:19 63:22 69:7,11 76:22 82:2 87:14 customers [47] 13:15 15:8 16:17,19 17:11 18:21 19:25 21:8 27:10 27:11 28:13 33:10,11 34:3 35:20,21 38:9,15 40:1,10,13,14,20 41:2,4 41:6,9,18 44:8,21 45:21 45:22 47:21 55:6,7,9 57:16 58:2,13,14,16 62:16 67:2 80:13 85:22 89:11 94:13</p> <hr/> <p style="text-align: center;">-D-</p> <hr/> <p>dam [1] 28:2 date [1] 70:13 Dated [1] 96:10 days [2] 70:16 71:12 deal [9] 9:12 11:12 14:20 15:12 42:13,22 55:3 73:21 77:6 dealing [4] 8:25 23:6 52:9 72:16 deals [1] 81:9 dealt [3] 3:5 55:4,5 Dean [71] 48:20 49:11 59:24 60:3,6,14,24 61:3 61:6,17,22,24 63:2,7 64:4,11 66:3 67:4,13,19 67:24 69:16 72:7,9,21 73:24 74:7,10,13,14,24 75:3,8,23 76:3,6,7,12,23</p>	<p>77:8 81:13,19 82:5,9,21 83:1,4,9,15,23 84:3,10 84:14,20 85:3,10,18 86:12 87:5,21 88:9 90:6 90:24 91:8,15,20 92:6 93:24 94:6,8,18 debate [1] 41:22 debated [1] 42:18 debates [1] 40:12 December [3] 18:12,17 21:10 decision [2] 41:1 69:3 decisions [1] 43:7 decreases [2] 35:4 87:2 deeper [1] 90:19 defer [1] 93:22 deferral [19] 4:18 5:8 6:5 6:24 7:18,19,22 10:23 11:4,18,19,22,25 12:1,6 12:11,16,19 68:1 deferrals [2] 69:8,8 deficiency [2] 68:1,22 deficit [1] 11:6 definitely [1] 3:4 degree [2] 76:19 80:8 delay [1] 5:24 demand [15] 14:25 15:7 17:16,20,23 18:1,7,23 20:8,13 21:13 27:2 34:25 35:5 87:23 demands [1] 17:20 demonstrate [1] 17:6 demonstrated [1] 23:17 depending [2] 55:16 79:14 described [1] 51:2 designed [2] 7:23 11:16 desirability [1] 2:12 despite [1] 27:18 detail [2] 16:6 64:18 determinants [1] 16:16 determine [3] 16:9 51:3 88:3 develop [1] 87:25 differ [1] 67:5 difference [6] 20:17,20 28:6 45:16 58:1 67:8 different [17] 2:18 7:15 7:25 9:19 10:5 11:2 12:9 12:9 25:15 26:13 33:20 35:15 37:16 55:16 73:4 86:6,8 difficult [1] 89:2 difficulty [1] 65:22 dig [1] 11:20 direct [6] 69:17 72:10 75:25 76:16 86:7 89:7 directing [1] 5:3 direction [1] 38:6 directs [1] 38:6 disagree [2] 47:7,17 disagreeing [1] 45:3</p>	<p>discuss [1] 36:4 discussing [1] 13:9 discussion [4] 1:24 7:9 25:7,8 discussions [2] 71:7 76:20 distinction [1] 10:19 distributed [4] 23:5 29:3 70:14 87:9 distribution [2] 1:11 24:1 divided [1] 65:11 dividing [1] 18:8 document [4] 17:7 20:21 80:5,16 documents [2] 80:18,21 doesn't [7] 9:5,6 27:17 29:25 58:4 65:15 81:5 dollar [8] 11:11 47:20 55:25 57:22,24 58:18 85:2 89:25 dollars [26] 20:7 21:21 24:25 28:9 44:12,18 46:13 49:20,20 55:11 57:21 64:16,22 65:16 66:7,15 68:2 69:3 77:2,4 82:16 84:18 87:7,8 88:25 90:22 done [7] 39:1,14 54:8,14 55:19 72:17 73:1 Douglas [1] 32:17 down [18] 5:6 9:14 27:19 34:19 35:1 38:2 41:18 42:4 46:23 53:13 62:2 66:8,9,10 84:7 87:2 89:18 93:10 Dr [3] 5:3,4,21 draw [1] 10:18 due [3] 27:10,11 67:7 during [5] 33:25 46:25 48:16 49:25 68:22</p> <hr/> <p style="text-align: center;">-E-</p> <hr/> <p>early [2] 18:10 92:2 earn [1] 8:10 easier [1] 5:23 easily [1] 57:10 easy [1] 65:3 economic [1] 20:2 economics [2] 60:18,20 education [3] 60:12,13 60:21 effect [4] 20:6 30:23 32:13 33:1 effectively [1] 24:4 efficiency [2] 7:11 45:7 efficient [1] 44:22 efforts [1] 75:20 either [4] 3:2 46:19 49:9 72:18 electric [3] 55:15,17,17 electrical [4] 56:19 60:16 61:1 80:11</p>	<p>electronic [2] 92:17,18 electronics [1] 92:16 elsewhere [1] 82:1 embedded [3] 45:10,13 45:17 employed [1] 62:19 employee [1] 74:23 end [10] 39:1,6,12 41:19 87:14 88:21 90:14 92:2 92:3 93:9 ended [3] 39:17 41:10 43:6 energy [37] 4:18 5:8,9 6:23 9:22,25 10:2 16:24 19:9 20:8,11 22:12,15 22:21,23 23:4,11,14,16 26:20 27:2,4,16,18,20 27:24 28:1,11 30:8 35:6 44:22 45:7 47:3 63:21 63:23,25 64:1 engineer [4] 60:15,23 60:25 92:13 engineering [4] 60:16 61:1,9 94:1 entered [1] 77:13 entire [2] 16:4 46:14 entirely [1] 67:5 equal [4] 65:20 87:7 88:24 89:23 equates [1] 47:6 equipment [1] 89:10 equitable [3] 50:13 65:21 66:23 equitably [1] 87:10 equivalent [1] 47:22 escalator [1] 73:14 essence [1] 5:23 essentially [2] 18:19 92:16 estimate [3] 37:19 39:12 56:7 estimates [1] 73:12 estimation [2] 31:23 32:23 et [1] 74:17 evaluating [1] 73:11 everybody [1] 1:4 evidence [26] 4:11 34:15 42:15 49:11 50:10 53:6 54:10,23 63:5 67:14,17 67:18 68:5 74:22 75:3,4 75:6,7,10,12,17 76:11 85:14 91:16,24 92:7 exact [3] 34:14 75:25 82:23 exactly [1] 72:25 examination [2] 5:25 69:17 EXAMINATION-IN-CHIEF [1] 60:3 examine [1] 4:6 examined [1] 3:16 example [3] 7:12 30:17 41:13</p>
--	--	---	---	--

<p>except [1] 40:24 exception [2] 83:6 84:25 exchange [1] 7:22 Excuse [1] 75:24 exempting [1] 36:9 exercise [1] 30:12 exhibit [3] 23:4,17 33:5 exist [2] 16:17 80:17 existed [1] 81:21 existing [7] 27:25 34:3 34:23 35:2,21 68:24 69:9 exists [1] 46:1 expand [1] 52:4 expansion [1] 5:13 expect [4] 10:12 53:11 90:9 93:18 expected [3] 5:13 32:12 32:25 expending [1] 22:23 expenditure [2] 84:8 85:2 expenditures [1] 84:19 expense [3] 87:18,22 92:2 expenses [1] 87:4 experience [8] 2:19 61:4 61:12,23 62:23 91:19 93:18,21 expert [4] 54:16 63:7 75:4,7 explain [2] 7:4 38:13 explained [2] 50:1 64:15 Exploits [2] 10:3,5 explored [1] 68:10 extend [1] 39:7 extended [1] 2:21 extension [2] 5:11 55:12 extent [3] 11:17 43:12 94:3 extra [3] 17:19 27:24 57:20 eye [1] 38:20</p>	<p>91:19 93:23 fairly [11] 2:24 3:7 8:21 11:13 45:14 52:17 60:19 61:11 65:3 71:6 87:9 fairness [1] 93:20 Falls [1] 41:14 familiar [5] 3:17,22 6:4 54:12 91:18 far [2] 38:21 52:18 fashion [3] 40:2,16 73:23 faster [1] 27:13 feature [1] 7:16 February [1] 14:10 feeding [1] 86:15 felt [1] 36:16 few [2] 61:18 74:14 figure [4] 8:7,10,15 11:11 figures [1] 84:2 file [1] 67:17 filed [8] 2:2 16:8 34:16 54:19,23 60:7 63:8 79:9 filing [2] 2:14 91:16 filings [1] 5:17 final [2] 27:9 39:2 financial [3] 6:17 7:1 12:13 fine [2] 33:17 40:12 finished [2] 71:22 88:21 first [15] 4:5 44:13 50:3 60:16 61:18 64:13,23 65:6 66:17 68:8,16 88:15 89:13 91:9 92:18 firstly [2] 63:19 67:14 five [2] 11:23 63:24 fixed [7] 8:12 23:12 28:1 33:21 34:1 35:6 37:21 flag [1] 52:20 flags [1] 53:13 flat [1] 17:16 flattening [1] 92:2 focus [1] 3:25 follow [3] 1:23 54:5 93:15 followed [2] 3:23 42:16 following [1] 4:11 footnote [4] 27:7 38:3,3 43:11 forecast [8] 27:13 29:1 29:1,2,3,4 37:17 70:17 forecasting [2] 6:10 10:8 forecasts [2] 6:19 38:23 foreclose [1] 91:5 foregoing [1] 96:2 forgot [2] 68:20 69:4 form [1] 73:14 forth [1] 72:15 fortunate [1] 61:12 forward [3] 13:11 72:13 83:7</p>	<p>four [3] 11:22 14:20 60:19 fourth [2] 26:25 63:4 frame [1] 35:3 framework [1] 9:19 free [1] 47:7 frequency [1] 90:11 frequent [2] 43:2,4 front [2] 14:23 66:11 frozen [1] 47:2 fuel [10] 11:6,20,24 12:15 27:19,22 28:3,4,9 35:8 full [2] 16:5 21:11 function [1] 12:18 fundamentally [3] 18:20 30:4 31:7 funds [1] 69:9 fuss [2] 4:22 9:1 future [6] 7:20,24 56:8 56:10,11 69:10</p>	<p>grown [1] 41:5 grows [1] 33:6 growth [5] 33:7,8 34:1 34:25 69:11 guess [12] 2:11 3:12 15:17 20:16 30:16 48:3 63:14 70:9 71:3 79:22 85:7 94:24</p>	<p>55:4,14 57:7 58:4,9,12 64:16,20 65:24 66:5,14 66:22 70:18 72:2,14 73:6 76:20 77:3,14 83:19 86:15,16 87:11,17,25 89:10 90:8 91:1,15 Hydro's [8] 30:20 33:3 33:24 35:2 48:20 65:10 67:1 96:4</p>	
<p>-F-</p>		<p>-G-</p>		<p>-H-</p>	<p>-I-</p>
<p>face [1] 45:15 faced [2] 41:5,7 facing [1] 39:16 fact [9] 6:24 18:16 37:16 41:25 44:3 68:24 72:24 73:15 79:14 factor [3] 16:13,14 36:17 facts [4] 14:15 15:11,13 37:15 factual [1] 75:11 Fagan [1] 70:22 Fagan's [2] 36:5 71:14 fail [2] 92:19 93:13 failures [1] 93:11 fair [15] 30:10 31:22 32:22 45:18 66:23 75:15 78:6,8,10,10,12,14 89:20</p>	<p>gas [5] 55:15,17 56:3,17 56:18 gear [2] 82:19 92:5 general [8] 5:24 64:21 86:16,18 89:8,10,15 96:4 generally [6] 3:22,23 34:2 42:16 63:18 64:8 gigawatt [1] 28:7 given [7] 8:8,13 13:16 14:15 39:15 41:25 74:21 giving [2] 9:9 19:14 GLYNN [5] 59:16 69:21 77:19 78:17 94:25 goes [5] 3:12 27:16 35:1 38:21 65:5 gone [1] 11:6 good [18] 1:4,19,21 6:10 6:18 12:23 23:3 33:6 34:2,23 35:22,22 41:10 46:8 47:15 54:4 67:11 71:16 governance [1] 4:4 Government [1] 38:6 GRA [18] 2:1,1 3:23 5:17 11:13 16:8 27:7,12 38:1 38:22 39:7,23 40:25 46:4 49:10 52:15 62:7,10 Grand [1] 41:14 graph [2] 23:24 37:6 GRAs [3] 43:2,4,5 Gray [1] 17:8 Great [1] 34:10 greater [2] 11:10 33:21 GREENE [7] 54:1,3,20 57:5,11 58:24 94:15 Gregory [1] 62:21 ground [1] 46:7 groups [1] 2:17 grow [2] 33:25 35:3 growing [1] 69:8</p>	<p>half [4] 5:6 64:25 77:2 84:8 half-hour [1] 69:22 handed [1] 23:17 handle [1] 42:21 handled [3] 77:7 80:5 82:1 Handy-Whitman [1] 89:22 happy [3] 33:17 41:24 66:21 hard [1] 71:16 head [1] 15:7 hear [1] 76:6 heard [5] 64:12 76:8 91:21,22 96:5 hearing [11] 2:20,23 8:6 11:15 50:21 51:11 52:9 53:4 58:6 91:22 96:3 hearings [1] 60:17 heart [1] 6:11 heavy [2] 61:7,15 height [2] 18:8 37:8 held [2] 76:20 91:7 help [3] 7:3 13:1 88:8 helpful [2] 70:22 77:14 helps [1] 33:5 hereby [1] 96:2 high [3] 21:10 62:2,3 higher [5] 21:15 23:15 27:14 69:12 83:21 highly [1] 9:2 hit [1] 90:13 hole [1] 11:20 Holyrood [10] 7:11 16:13 23:13 27:19,23 28:3,4,9 63:21,25 honest [1] 79:23 honestly [1] 45:21 hooked [2] 55:7 56:25 hope [1] 63:12 hoped [2] 7:14 92:8 hours [1] 27:4 house [1] 57:21 huge [2] 11:9,12 hydraulic [1] 12:18 hydro [55] 1:25 2:12 5:24 6:18,25 10:2 13:11,16 15:20,24 18:20 19:16 20:8 21:7 23:12,17 27:17 28:2 30:1 40:11,24 44:25 48:3 49:10 50:6 52:16</p>	<p>IC [5] 24:24 36:16 43:16 46:15,25 IC-140 [7] 13:17,22 15:20 16:3,4 19:20 21:7 IC-NLH-140 [3] 14:9 16:1 20:9 ICs [1] 43:11 idea [2] 13:2 89:15 ignored [1] 15:13 ignoring [2] 9:23 15:10 imbalances [1] 5:16 immaterial [1] 20:12 immediate [1] 12:12 implied [1] 24:2 important [1] 69:7 imposed [2] 16:25 17:2 imprudent [1] 68:9 inappropriate [1] 40:4 incentive [2] 6:18,25 include [1] 29:25 included [3] 17:11 57:4 86:13 includes [1] 56:10 inconsistent [1] 26:7 incorrectly [1] 54:11 increase [3] 1:9 52:21 53:12 increases [6] 3:19 27:10 35:8 41:6 52:18,20 increasing [1] 92:3 incur [1] 17:16 indeed [1] 71:20 independent [1] 91:24 index [3] 66:7 73:15 89:22 indexed [3] 53:2,5 66:20 indexes [2] 66:18 73:15 indexing [10] 49:18 50:12,21 51:24 52:2 53:17 58:22 73:2,4,22 indicate [2] 36:14 85:15 indicated [5] 24:22 25:13 36:7 72:14 76:17 industrial [50] 13:15 17:11,15,24 18:1,21,25 19:25 20:6 21:12,20 22:18 24:9 27:11 30:18 30:19 32:19 34:7 35:20 35:21 38:8 40:1,14,20 40:21 41:2,4,6,8,18 44:1 44:6,8,21 45:20,21,22 55:2,13 58:10,15 62:15</p>		

<p>62:18 63:22 67:2 76:21 77:9 82:2 90:12 94:13 industrials [5] 15:1,2,3 15:4 18:16 industry [9] 56:18 61:4 61:7,7,16,20 73:17 89:5 90:13 inequities [1] 51:25 inferior [1] 43:4 inflation [2] 52:19 53:9 inflationary [1] 53:12 information [7] 27:14 65:23 67:8 70:21 71:14 72:23 78:1 insofar [1] 79:4 install [1] 56:7 installed [2] 64:16 92:22 instance [4] 10:20 39:15 75:17 82:3 institutional [1] 74:18 insulation [1] 93:10 insurance [1] 73:11 interconnected [1] 1:10 interest [1] 90:10 interesting [1] 47:19 internally [3] 12:20,24 26:7 interpretation [1] 81:23 interval [1] 39:21 introduced [1] 66:17 investigate [1] 82:2 investment [1] 52:14 involve [1] 51:2 involved [9] 2:6 4:14 57:1 60:17 62:6,17 71:7 80:9 94:3 issue [8] 7:10 13:6 17:13 26:4 48:6 52:9 70:15 75:2 issues [5] 3:14,25 5:25 62:1 63:14 it'll [1] 93:8 item [4] 8:12,25 67:13 67:22 items [5] 9:15 11:13,18 68:8 73:13 itself [2] 12:25 74:4</p>	<p>39:24 40:7 42:5,11,19 43:9,14,17,24 44:16 45:4 45:22 46:12,21 47:11,18 48:7 49:25 58:5 59:14 70:6,8 71:11 74:9,10,12 75:1,14 76:5,9,14 77:5 77:11 78:5,9,13,25 79:21 80:1,16 81:2,8,11,17,24 82:7,11,24 83:3,12,17 84:1,5,12,16,23 85:6,12 86:10,23 87:19,24 89:24 90:20 91:4,14,23 93:19 94:5 judgment [1] 32:22 Judy [2] 96:2,12 June [2] 60:9 63:17 jurisdiction [3] 42:13 72:25 74:3 jurisdictions [6] 48:18 49:2,9,17 54:13 72:20</p> <hr/> <p style="text-align: center;">-K-</p> <p>keep [11] 11:16 12:2 13:1 43:3 44:9,11 60:20 66:9 73:2 89:3,5 keeping [1] 70:9 keeps [1] 23:15 kilometre [1] 90:8 kilometres [3] 82:17,17 82:22 kilowatt [2] 20:14 21:13 kind [2] 5:12 8:13 knowing [1] 41:3 knowledge [4] 42:6 76:19 77:6 81:20</p> <hr/> <p style="text-align: center;">-L-</p> <p>Labrador [5] 1:10,11 96:4,7,10 lack [1] 67:7 large [4] 18:11 41:7 46:19 58:13 last [7] 2:1 8:12 28:6 61:10 62:16 70:15 93:8 lastly [1] 63:23 lawyers [1] 91:9 least [2] 53:10 73:4 leave [2] 3:13 23:3 leaves [1] 44:12 leaving [4] 3:10 22:21 23:10 64:3 led [2] 24:18,19 ledger [1] 41:10 left [1] 9:18 legal [3] 42:17 43:8 69:2 legalities [1] 42:21 legality [1] 68:18 less [4] 7:13 23:14 24:19 85:2 level [5] 53:10 56:9 60:19 65:9 89:18 levels [3] 19:19 22:21 32:20</p>	<p>LIAM [1] 72:7 Liberty [1] 68:10 life [1] 93:10 light [3] 72:6 81:3 86:1 likely [2] 36:3 87:17 likewise [1] 90:21 limited [5] 9:5,15 57:7 58:9 62:20 line [25] 13:1 14:7,7,24 15:17 17:22 19:1 29:11 29:15 33:24 46:23 55:12 55:19 75:25 82:18 83:14 85:24 86:19 90:8 91:18 92:5,11,22 93:2,14 lines [5] 22:2 31:15 47:20 64:17 93:13 list [1] 9:16 listen [1] 85:7 litigation [1] 42:6 load [44] 13:8 16:13 17:14 18:13,22,25 23:7 24:3,3 27:12 28:5 29:4 30:18,19,22 31:5,8 32:19 33:6,7,8,16,19,23 34:1,5 34:12,17,24 35:25 36:17 39:5 40:8,10,19 43:1,3,5 44:20 47:2 56:22 69:7 69:11 70:17 loads [11] 2:25 3:8,15 4:1 13:12 17:10 25:14 26:13 41:3,4,7 longer [1] 3:13 look [21] 8:9 17:13 18:24 27:19 30:19,22 32:17 64:18 65:5 67:8 71:16 72:24 83:13 85:21,25 88:13,14,21 90:5,15,21 looked [7] 52:11 55:2 56:24 72:22 86:8 88:15 88:17 looking [8] 4:14 16:1 23:23 41:16 65:20 79:18 86:6,18 losing [1] 6:5 lost [1] 68:7 low [6] 12:23 22:21 23:4 23:11,16 90:23 lowers [1] 23:9 luckily [1] 47:15</p>	<p>45:19 market [1] 75:21 massive [2] 11:4,6 match [2] 25:14 26:12 matching [1] 35:9 material [3] 8:25 9:2 53:12 math [2] 28:6 47:8 mathematics [4] 45:23 48:2,6 85:4 matter [5] 2:18 41:25 64:8 70:6 96:3 MAUREEN [1] 54:1 may [20] 2:22 5:10 7:13 8:5 10:5 12:14 51:24 52:1 55:23 56:20 58:1 58:11,19 68:8 79:9 80:16 80:17 81:21 88:12 89:2 mean [9] 10:24 22:17 32:12 40:3 42:10 44:20 78:3,4 84:11 means [6] 23:11 28:1 45:13,15 69:12 96:8 meant [2] 12:20,21 meantime [1] 30:2 measured [1] 17:23 mechanism [6] 7:17,18 8:7,9 11:8 13:3 mechanisms [3] 8:15 8:18 11:17 meet [3] 8:23 9:6 11:19 meets [2] 10:1,9 megawatt [1] 27:4 megawatts [3] 17:25 24:6,7 MELVIN [3] 60:3 72:7 74:10 memory [1] 74:18 mentioned [7] 2:16 3:24 22:11 30:7 55:23 68:23 72:10 met [1] 10:12 method [21] 15:19 34:18 49:10,11 50:3,5,11,19 51:1,10 52:1 53:2,3,5 56:17,20 58:20 66:6 90:25 91:1 methodology [10] 47:2 50:21 51:11 54:8 62:13 63:19 64:9,9 88:2,4 methods [3] 16:12 50:1 55:16 mic [1] 77:20 mid [1] 62:14 middle [1] 42:17 might [15] 5:25 7:14,19 8:10 10:2,2,4,5 14:2 37:16 43:3 58:9 71:10 75:19 91:6 mill [3] 62:1 75:13,21 million [26] 11:10 21:21 21:23,23 24:25 28:9 43:12 44:2,18 46:13 47:1 47:5,5,6,23 64:16,21,25</p>	<p>68:2 69:3 77:2,4 82:16 84:18 85:2 90:22 mind [3] 6:8 14:21 85:20 mine [3] 56:25 67:5,6 minimize [2] 5:15 75:20 minimum [1] 12:3 mining [1] 61:18 mislabelled [1] 28:25 missing [1] 28:10 mistake [1] 44:17 misunderstand [1] 54:21 mix [2] 25:14 26:12 mixing [3] 7:16 35:9 45:10 model [3] 4:4 13:16 92:1 moment [3] 5:3 9:23 86:25 money [6] 42:22 45:23 46:2 65:18 68:3 72:16 monthly [1] 17:10 months [2] 19:5,10 Moore [1] 62:22 moreover [1] 38:5 morning [5] 1:4,19,21 54:4 67:18 mortar [3] 23:13,14 28:2 Moss [2] 96:2,12 most [12] 3:4 13:23 14:7 14:13 15:18 19:15 24:22 27:3,14 85:21 87:16 90:9 moved [1] 54:25 Ms [8] 1:7 17:8 59:16 69:21 77:19 78:17 94:17 94:25 muddled [1] 8:3 must [3] 39:25 66:11 72:22</p>
<hr/> <p style="text-align: center;">-J-</p> <p>John's [2] 96:7,10 Johnson [144] 1:14,16 1:18,22 2:5,10 3:11 4:2 4:10,16 5:1,20 6:3,9,15 6:22 7:5 10:11,17 12:4 13:4,21 14:3,16 15:16 15:23 17:3 18:3,18 19:6 19:11,24 20:5,15,22 21:2 21:17,22 22:1,6,10,16 23:19 24:15,20 25:5,12 25:19 26:1,10,16,22 28:14,21 29:5,10,14,20 30:3,9,15 31:1,9,14,18 32:4,9,16 35:11 36:2,13 36:24 37:9,24 38:12</p>	<hr/> <p style="text-align: center;">-M-</p> <p>M [2] 88:1 89:16 madam [1] 1:5 maintain [1] 90:4 maintained [1] 27:22 maintenance [5] 57:13 61:9 68:14 86:2,19 major [3] 2:24 3:8 39:22 managed [1] 51:19 management [1] 61:10 Manitoba [6] 55:4,14 57:7,12 58:8,12 manner [2] 48:19 60:12 marginal [3] 45:11,14</p>	<hr/> <p style="text-align: center;">-N-</p> <p>Nalcor [2] 4:5,14 naturally [2] 12:1,20 nature [2] 79:14 86:18 near [1] 21:6 necessarily [2] 7:3 9:9 necessary [1] 12:18 need [4] 5:17 8:19 24:8 77:23 needed [1] 37:4 needs [3] 25:13 52:25 55:11 negative [1] 46:9 negotiated [1] 11:15 negotiation [1] 55:1 never [1] 31:21 new [10] 4:4 19:18 47:2 56:25 69:7 73:16 87:13 89:20 92:22,23 newer [1] 87:11 Newfoundland [17] 25:1 33:9 34:24 38:9,15 39:16 40:2,15,18 47:21</p>		

<p>47:24 58:3 68:23 73:6 96:4,7,10 news [4] 33:6 34:2,23 45:1 newsprint [1] 75:21 next [5] 40:24 47:19 59:13 65:9 71:12 night [1] 28:7 nine [2] 3:3,10 nine-year [1] 39:21 non-indexed [1] 53:1 non-Industrial [1] 55:6 normal [10] 5:14,15 12:22 16:7 17:15 36:9 38:22 39:10 51:14 55:8 normalize [1] 13:12 normalized [4] 14:10 18:22 21:8 30:17 normalizing [2] 22:20 35:13 normally [2] 8:6 93:6 North [3] 17:14 33:12 52:13 note [3] 30:7 78:18,19 notes [1] 21:7 nothing [6] 16:10,11,15 41:11 73:16 86:14 notice [3] 14:23 18:9 73:12 noticed [1] 75:9 now [37] 3:3 8:14 11:21 12:25 15:24 19:12,25 20:6 21:18 22:11 25:6 26:11 27:1,19 32:17 33:14 36:7 39:20 43:25 44:17 49:25 51:1 55:23 59:21 62:2,24 63:4,4,24 64:24 67:16 68:17,25 69:19 83:20 88:25 92:21 NP [7] 24:18,19 41:16,17 41:20 42:1 46:3 NP's [1] 35:22 number [20] 9:15 11:2 14:22 15:5 27:7 33:21 38:4 44:10 58:13 62:12 63:8 67:6 82:23 83:7,10 83:19,22 88:8 89:2 92:24 numbers [2] 27:15 46:19</p>	<p>63:6 64:6 66:1,25 67:12 67:21 69:15,23 71:23,24 77:16,17,20,21 78:2,11 78:15,22 79:4,6,10,16 79:24 80:20 94:21 oath [1] 59:22 observation [1] 5:22 obviously [5] 3:12 20:1 74:14 80:10 90:18 OC [1] 38:6 occurred [1] 43:16 occurs [1] 12:17 October [4] 1:1 70:13 96:5,11 odd [4] 32:21 39:5 40:16 41:25 off [7] 4:19 7:24 12:23 14:22 28:8 52:18 63:16 offset [1] 35:8 often [1] 73:13 old [3] 7:21 65:17 89:21 older [1] 87:15 OM [3] 85:13,16 87:1 OM&A [3] 83:5,7 84:7 OMA [4] 84:11 85:22 86:13,14 once [1] 6:5 one [39] 1:5 2:7 6:8 7:16 7:18 11:12,21 12:17 15:2 15:3 16:8,21 21:10 23:6 23:6 24:10 25:13 31:19 40:11 54:4 57:14 58:10 60:8 62:3,9,16,21 66:5 66:10 69:6,11 71:7 72:14 72:18 73:6 80:21 84:7 88:12 90:11 ones [6] 55:13 75:11 81:15,15,21 89:4 ongoing [1] 57:2 online [2] 72:22,23 onto [2] 40:10,12 operating [7] 3:15,18 3:19 9:19 15:2,4 57:13 operation [3] 6:11 39:10 82:12 operations [5] 17:15 75:18 91:15 92:8 93:17 opinion [1] 54:16 opportunity [2] 54:24 71:11 opposed [2] 37:17 83:4 opposite [1] 34:14 option [2] 8:20 14:24 options [4] 14:20 42:22 72:11,19 oral [1] 67:17 orange [2] 17:22 19:3 order [20] 8:11 15:25 18:16 19:13,16 33:18 36:8,9 37:11,18 43:10 43:25 44:6 52:22 53:11 80:22,24,24 81:9 90:1 orders [1] 15:14 original [10] 2:14 16:3,8</p>	<p>23:25 65:13 84:8,24 85:14 86:4 88:17 otherwise [4] 9:8 34:12 42:2 78:4 ought [2] 6:16 51:13 ours [1] 67:9 outcome [1] 40:22 outcomes [1] 8:18 outline [1] 61:3 overall [1] 16:15 overcharged [1] 87:13 own [5] 24:12,13 40:18 40:19,21</p> <hr/> <p style="text-align: center;">-P-</p> <p>P.U [2] 80:22 81:4 page [15] 5:4 13:5 14:6 14:19,22,23 17:8 21:1,6 22:7,9 27:1,21 31:15 83:13 pages [3] 16:6 37:25 68:21 paid [6] 24:8 56:23 62:16 64:17,22 82:16 panel [1] 92:9 paper [2] 61:20 75:13 paragraph [1] 5:7 pardon [1] 65:1 part [7] 4:9 6:18 11:15 51:14 68:16,16 80:24 particular [8] 5:6 26:19 60:10 61:15,16 63:17 68:15 76:24 particularly [5] 3:7 52:10 68:13 70:22 85:23 parties [2] 63:12 65:21 party [1] 88:12 pass [1] 52:23 passed [1] 11:21 past [2] 49:19 74:22 Patrick [109] 1:16,20 2:3 2:8,15 3:21 4:8,13,24 5:18 6:1,7,13,20 7:2,8 10:15 11:1 12:8 13:19 13:25 14:14,18 15:21 16:2 17:5 18:5 19:2,8,21 20:3,10,19,25 21:4,19 21:24 22:4,8,14 23:1,21 24:17 25:3,10,17,24 26:5 26:14,18,24 28:19,23 29:8,12,17,22 30:6,13 30:24 31:3,12,16 32:2,7 32:14 33:2 35:16 36:11 36:19 37:3,13 38:10,16 40:6 42:9,14,23 43:13 43:19 44:4 45:2,6 46:17 47:9,13 48:1,12,23 49:5 49:13,22 50:7,15,23 51:6 51:12,20 52:3,8 53:18 54:1,18,22 57:8,18 58:7 59:9 88:5 pay [23] 15:14 17:18 18:13,16 24:3,4,13,14 31:8 33:16,17 34:6,12 34:17 36:1 39:1,11 55:11</p>	<p>56:14 57:17,20 80:4 83:21 payers [2] 8:19 9:10 paying [5] 24:18,19 34:13 38:25 87:15 pays [1] 90:8 peak [11] 14:11 16:25 17:1,21 18:12,17 21:9 21:10 22:20 23:22 24:2 pejorative [1] 38:19 PENNELL [1] 1:7 people [11] 11:11 40:17 45:12 46:10 54:25 73:7 87:14 90:9 92:9 93:17 94:1 per [1] 21:13 percent [14] 20:14 21:16 32:20,21 34:8 52:22 64:19 67:10 68:25 84:8 85:1,13 86:13 93:2 percentage [1] 46:20 performance [1] 3:15 perhaps [4] 7:3 54:11 75:10 77:12 period [13] 2:22 12:14 27:17 32:11,25 34:1 35:1 39:7 46:15,25 53:9 92:20 93:8 periodic [1] 5:15 periods [3] 31:25 32:10 39:7 person [1] 90:21 personally [2] 2:7 92:21 pertains [1] 70:14 phases [1] 22:24 phonetic [1] 43:1 phoney [1] 24:1 phrase [1] 63:16 phrased [1] 31:4 pick [1] 87:3 picked [2] 87:1,17 picking [1] 69:12 pie [2] 33:20 45:14 pieces [1] 64:20 pipe [1] 56:6 place [7] 4:4 6:6 26:3,6 41:1 43:15 44:14 plan [1] 10:22 plant [8] 3:1 23:13 44:23 65:11,14 86:5 88:23 89:16 play [1] 43:25 playing [1] 11:4 pleased [1] 65:24 plus [2] 28:3 56:7 point [14] 7:1 14:5 25:21 34:3 36:4 37:12 70:19 71:4,9,12 77:1 89:12 91:3 92:8 portion [2] 12:15 51:4 position [2] 54:15 68:18 positions [1] 61:9 positive [1] 38:7</p>	<p>possibility [1] 89:8 possible [3] 14:1 41:23 70:12 possibly [1] 38:14 potential [1] 42:22 power [22] 10:6 15:14 16:20 25:2 34:24 36:9 37:17,21 38:9,15 39:16 40:2,15 47:7,24 62:3,5 68:23 72:6 73:6 75:13 80:23 Power's [3] 33:10 40:18 47:21 practice [3] 8:22 49:19 55:8 practices [3] 54:13,15 81:25 Praxair [11] 13:13 17:19 18:10,17 22:22 24:5,11 31:7 36:8 37:11,22 pre-contract [1] 37:20 pre-filed [4] 63:5 67:17 75:3,6 precise [2] 31:21 70:11 precisely [1] 75:16 prefaced [1] 93:20 preferred [1] 88:2 prepared [3] 20:9 38:23 70:12 present [6] 49:20 56:7 56:11 57:3 62:8,9 presentation [1] 88:6 pretend [1] 92:14 pretty [5] 9:16 53:8 56:18 67:11 77:10 previous [2] 75:11 90:12 price [1] 66:17 prices [1] 11:6 primarily [1] 27:11 principle [2] 32:5 45:24 principles [3] 31:19 36:21 42:17 priorities [1] 62:4 problem [10] 17:18 24:12,12 33:13 34:14 35:10 44:5 45:9 77:15 89:19 problems [2] 3:5 92:10 proceed [2] 59:21 70:5 proceeding [2] 42:15 44:25 process [3] 5:12 62:6 68:8 produce [1] 19:19 production [1] 19:19 professional [4] 60:12 60:15,23,25 professions [1] 12:10 profile [1] 19:1 projects [1] 61:9 proper [4] 15:9,12 68:17 93:7 properly [2] 11:19 71:9</p>
<hr/> <p style="text-align: center;">-O-</p> <p>O [2] 88:1 89:15 O&M [31] 48:19 49:3,17 50:2 51:4 55:10,21 56:2 56:3,8,10 57:2,4,25 58:15,17 63:20,20 64:10 64:12 65:10 67:2,16 73:22 76:15,18 77:7 80:4 82:1,8 83:5 O'BRIEN [4] 72:7,8 73:19 74:5 O'Reilly [50] 48:11,12 48:14,25 49:7,15,24 50:9 50:17,25 51:8,17,22 52:5 53:16,20 54:6,12 60:4,5 60:22 61:2,14,21 62:25</p>				

<p>property [1] 85:24 proposal [3] 10:1 72:13 72:15 proposed [8] 5:8 52:12 52:16,21 88:16 89:25 91:1,2 proposing [1] 35:13 proprietary [1] 78:1 prorated [1] 88:23 provide [6] 19:13 20:17 54:16 71:5,14 77:12 provided [7] 15:20 21:12 23:24 33:3 42:2 75:4 88:24 provides [1] 16:4 providing [1] 70:18 Province [1] 60:25 public [5] 75:5 79:13 81:16,20 96:6 publicly [1] 80:18 pulled [1] 37:6 pulp [1] 61:20 purple [1] 19:4 purposes [1] 73:12 push [1] 7:20 pushed [1] 7:24 put [17] 4:4,19,20,20 10:5 12:13 13:11 34:20 41:1 43:15 44:1 63:5 72:12 72:15 92:22,24 93:2 puts [1] 83:6 putting [1] 26:6</p>	<p>94:5,15,21 questioning [1] 49:25 questions [13] 48:9 54:6 59:1 68:14 69:17 72:2,6 74:6,14 94:7,13,16,18 quickly [1] 28:6 quite [6] 1:25 73:13 79:22 85:19 92:20 93:8 quote [1] 15:6 quoted [1] 14:21</p>	<p>recognize [4] 5:9 36:15 36:20,22 recognized [2] 12:14 60:18 recognizing [1] 12:12 recollection [2] 11:10 20:11 recommendations [1] 68:6 recommended [2] 13:10 47:16 record [8] 22:2 74:21 77:15 78:18,19 83:18 91:25 92:7 red [2] 52:20 53:13 redirect [1] 59:5 redo [1] 40:17 reduce [2] 11:17 62:5 reduced [1] 64:24 reducing [1] 18:23 reference [2] 60:10 63:17 referred [3] 50:4,4 88:5 referring [4] 14:12 81:14,22 84:17 refers [2] 43:11 75:6 reflect [5] 5:2 14:10 31:22 32:22 33:4 reflection [1] 10:13 reflective [2] 30:22 51:18 regard [3] 6:25 52:15 70:21 regarding [1] 13:6 regards [8] 7:10 9:22 26:6,19 42:10 48:4 53:14 82:8 regulated [1] 39:10 regulatory [6] 8:22 61:22,25 63:1,3 73:16 reimbursed [1] 77:3 relate [3] 7:19 8:1 54:5 related [3] 40:23 52:10 82:19 relation [1] 4:17 relatively [1] 9:15 reliability [2] 92:13 94:1 remain [1] 2:20 remained [1] 44:15 remember [3] 14:24 25:16 48:22 remove [1] 6:25 removing [1] 6:17 repeated [2] 29:19,21 replacement [1] 73:11 reply [1] 24:22 report [15] 5:4 13:10 14:5 22:7,9 37:25 38:1 60:11 63:15,18,19 68:10 68:11 83:6,13 reported [1] 44:9 reports [3] 60:8 63:7,8</p>	<p>represent [1] 90:2 representative [4] 2:21 18:25 30:21 31:5 represented [1] 62:21 request [4] 18:21 70:10 70:12 75:19 required [3] 19:17 52:2 71:8 requirement [10] 3:24 21:21 28:16,24 29:16,18 29:24,25 63:24 67:23 requirements [1] 21:8 requires [1] 37:18 rescind [1] 37:10 research [3] 54:7 57:6 72:18 residential [1] 57:19 resources [1] 27:17 respect [11] 4:1 17:18 27:2 35:5,6 36:20 54:8 54:16 57:12 61:13 73:20 respond [1] 15:25 responded [2] 65:24 66:14 response [8] 13:17 15:20 16:3 18:20 21:7 48:3,20 67:3 responses [1] 8:3 responsibility [4] 31:24 32:24 35:14 82:8 responsible [3] 38:25 56:21 80:3 rest [4] 40:11 44:11 87:4 88:20 result [10] 12:24 18:13 19:13,13 20:8 39:8 43:6 55:1 63:13 88:21 results [2] 19:20 51:16 RESUME [2] 59:19 70:3 retail [4] 58:2,13,13,19 retained [1] 64:14 return [5] 1:9 8:10,14 8:16 9:17 revenue [12] 3:24 21:20 28:16,24 29:15,18,24,25 46:14 63:24 67:22 68:1 revenues [4] 46:24 47:4 47:24 56:11 review [5] 51:3 54:14 60:11 64:7 81:4 review/cost [1] 5:16 reviewed [1] 3:22 reviewing [1] 7:12 Revision [2] 48:21 65:25 rewound [1] 93:1 RFI [2] 65:25 67:3 RFIs [2] 65:13 72:14 right [42] 2:2 3:20 4:7 10:24 15:17 19:3,7,25 20:2 21:25 22:19,25 25:2 29:11,16 30:16,23 32:13 36:18,25 38:3 43:12 44:10,11 45:1 46:19 49:12 52:4 63:4 75:2,15</p>	<p>75:15,24 79:11 81:1 83:8 83:11 84:6,13,22 85:4 87:25 rise [2] 5:16 19:14 risk [16] 5:6,14 8:9,16 9:9 9:18 40:12,15,19,20,23 41:3,9,17 42:3 45:25 risks [2] 9:13 40:10 road [3] 9:14 34:20 57:22 ROE [5] 9:17,23 10:14 68:17,24 role [2] 11:4 62:20 roll [1] 24:9 rolling [1] 11:23 roof [1] 35:24 room [1] 35:4 roughly [2] 82:23 84:21 round [2] 65:12 84:2 row [2] 27:4,19 RSP [15] 10:20,23 11:2,4 11:5,14 12:5 38:8 40:17 41:9 42:2,10 45:16 62:19 69:9 ruled [2] 65:6 73:4 rules [3] 42:3 43:14,21 run [2] 19:17 35:19 running [1] 6:11 runs [1] 55:14 rural [2] 62:14,16</p>
<p style="text-align: center;">-R-</p> <p>rain [1] 10:4 raise [1] 70:7 raised [1] 52:20 ramp [1] 37:15 ramped [1] 17:20 ramping [3] 15:3,8 27:13 range [2] 61:11 67:9 rate [32] 1:9 5:12,24 7:23 8:7,8,15,18,19 9:10 10:21 18:7,15 21:13 23:9 23:15 35:4,20,21,22,23 38:24,25 39:1 41:5 62:14 63:23 64:2,9 66:14 75:19 96:4 rates [19] 2:19 8:8 12:21 28:11 30:23 32:12,25 34:20,25 42:25 45:10,11 45:13,14,17 47:1 61:25 62:16 69:10 rather [2] 12:11 21:9 ratio [3] 86:4,4,6 ration [1] 43:1 ratios [2] 47:3 87:23 re-direct [2] 94:20,22 read [4] 44:25 66:12 76:24 90:10 reading [1] 21:18 ready [3] 1:4 59:12,21 realized [1] 7:13 reallocated [1] 46:5 really [7] 4:6 29:2 30:21 66:21 69:2 73:25 87:18 reason [10] 2:22 8:2 9:17 9:21 20:2,2 39:16 50:20 58:1,20 reasonable [26] 2:20 5:10 13:17,23 14:7,13 15:19 19:15 24:23 30:11 31:23 32:23 37:19 39:11 50:13 51:16 52:16 83:22 88:11,12,14,18 90:3,16 90:16,21 reasonableness [5] 52:24,25 88:4,7,10 reasonably [1] 91:6 reasons [3] 7:23 58:9 62:2 recalculation [1] 67:1 received [2] 46:24 47:22 recent [3] 27:14 38:1,5</p>	<p style="text-align: center;">-Q-</p> <p>Q.C [184] 1:16,18,22 2:5 2:10 3:11 4:2,10,16 5:1 5:20 6:3,9,15,22 7:5 10:11,17 12:4 13:4,21 14:3,16 15:16,23 17:3 18:3,18 19:6,11,24 20:5 20:15,22 21:2,17,22 22:1 22:6,10,16 23:19 24:15 24:20 25:5,12,19 26:1 26:10,16,22 28:14,21 29:5,10,14,20 30:3,9,15 31:1,9,14,18 32:4,9,16 35:11 36:2,13,24 37:9 37:24 38:12 39:24 42:5 42:11,19 43:9,17,24 44:16 45:4 46:12,21 47:11,18 48:7,13,14,25 49:7,15,24 50:9,17,25 51:8,17,22 52:5 53:16 53:20 54:2,3,20 57:5,11 58:5,24 59:14 60:4,5,22 61:2,14,21 62:25 63:6 64:6 66:1,25 67:12,21 69:15,23 70:8 71:24 74:11,12 75:1,14 76:5,9 76:14 77:5,11,17,21 78:2 78:5,9,11,13,15,22,25 79:6,10,16,21,24 80:1 80:20 81:2,11,17,24 82:7 82:11,24 83:3,12,17 84:1 84:5,12,16,23 85:6,12 86:10,23 87:19,24 89:24 90:20 91:4,14,23 93:19</p>	<p style="text-align: center;">-R-</p>	<p>represent [1] 90:2 representative [4] 2:21 18:25 30:21 31:5 represented [1] 62:21 request [4] 18:21 70:10 70:12 75:19 required [3] 19:17 52:2 71:8 requirement [10] 3:24 21:21 28:16,24 29:16,18 29:24,25 63:24 67:23 requirements [1] 21:8 requires [1] 37:18 rescind [1] 37:10 research [3] 54:7 57:6 72:18 residential [1] 57:19 resources [1] 27:17 respect [11] 4:1 17:18 27:2 35:5,6 36:20 54:8 54:16 57:12 61:13 73:20 respond [1] 15:25 responded [2] 65:24 66:14 response [8] 13:17 15:20 16:3 18:20 21:7 48:3,20 67:3 responses [1] 8:3 responsibility [4] 31:24 32:24 35:14 82:8 responsible [3] 38:25 56:21 80:3 rest [4] 40:11 44:11 87:4 88:20 result [10] 12:24 18:13 19:13,13 20:8 39:8 43:6 55:1 63:13 88:21 results [2] 19:20 51:16 RESUME [2] 59:19 70:3 retail [4] 58:2,13,13,19 retained [1] 64:14 return [5] 1:9 8:10,14 8:16 9:17 revenue [12] 3:24 21:20 28:16,24 29:15,18,24,25 46:14 63:24 67:22 68:1 revenues [4] 46:24 47:4 47:24 56:11 review [5] 51:3 54:14 60:11 64:7 81:4 review/cost [1] 5:16 reviewed [1] 3:22 reviewing [1] 7:12 Revision [2] 48:21 65:25 rewound [1] 93:1 RFI [2] 65:25 67:3 RFIs [2] 65:13 72:14 right [42] 2:2 3:20 4:7 10:24 15:17 19:3,7,25 20:2 21:25 22:19,25 25:2 29:11,16 30:16,23 32:13 36:18,25 38:3 43:12 44:10,11 45:1 46:19 49:12 52:4 63:4 75:2,15</p>	<p style="text-align: center;">-S-</p> <p>satisfactory [1] 93:4 satisfied [1] 15:18 saves [1] 4:21 savings [4] 24:21,24 44:18,19 saw [2] 52:12 88:16 says [5] 5:6 14:7 29:1 33:19 74:1 scenario [1] 28:5 scenes [1] 62:18 schedule [2] 16:23 80:23 schedules [1] 16:22 scroll [2] 38:2 66:8 second [11] 13:5 29:7 31:10 43:2 51:1 52:1 58:12 63:22 64:1 68:16 89:14 sections [1] 3:23 see [34] 5:19 10:13 17:9 17:12,21 21:6 23:4 27:3 27:3,15,20,21 29:11 33:25 34:21,22 35:19 48:2,5 65:3 66:16,21 68:4 71:16 72:18,25 73:2 77:23 89:19 90:13,25 91:2,5 93:18 seeing [4] 30:20 32:19 52:17,20 seem [1] 10:18 semantics [1] 43:25 sense [2] 9:11 54:14</p>

<p>sensitive [1] 77:24 separated [1] 41:16 serious [1] 92:10 serve [1] 65:4 serves [1] 89:10 service [45] 4:1 5:11 13:8 13:11 15:10,24 16:5,7 16:12,18 17:12 18:14 19:18 21:12 23:25 25:15 26:7 31:20 33:4 36:17 36:21 50:20 51:11,15 55:21 56:4 57:3,23,24 62:13 65:2,11,14 74:17 79:19 80:10,11,23 86:5 87:12 88:17,24 89:16 92:25 93:12 servicing [2] 12:15,19 set [11] 2:19 12:22 13:22 14:8 23:6 35:2 38:23 43:14 45:17 67:3 87:11 sets [1] 80:2 setting [3] 5:22 8:8 76:21 settle [1] 39:3 settlement [3] 63:10,11 64:2 several [1] 64:12 severe [1] 41:5 share [6] 28:3 33:20 34:8 41:2 45:18 69:12 shared [4] 34:1 41:20 45:18 56:22 sharing [1] 47:3 shift [1] 5:14 shifting [1] 5:5 shocked [2] 77:1,2 shove [1] 33:15 shoves [1] 40:10 shoving [1] 40:12 show [1] 26:20 showing [1] 66:23 shows [2] 16:23 21:12 shrunk [1] 41:7 shut [1] 62:2 side [9] 16:11 23:22 41:10 41:18 43:8 47:15 55:17 56:3,17 signed [1] 63:11 significant [2] 52:15 68:3 similar [3] 7:11 66:6,15 similarly [1] 57:19 simply [1] 35:13 single [1] 9:3 situation [10] 15:11 42:1 46:8 47:15 56:24 75:12 76:15 82:3,6 90:18 size [1] 19:9 slightly [1] 64:25 small [3] 52:14 55:8 56:13 smaller [3] 55:24,24 58:11 smell-test [1] 53:10</p>	<p>smelting [1] 61:19 solid [1] 68:5 solution [3] 42:25 43:2 43:5 solve [1] 12:25 sometimes [3] 2:17 11:24 56:19 somewhat [2] 12:16 28:25 somewhere [1] 12:13 soon [1] 9:16 sooner [1] 41:12 sorry [7] 4:9 58:6 60:2 64:10 76:2 77:22 94:20 sort [5] 8:3 12:17,24 14:20 86:24 sought [1] 13:14 sound [1] 96:8 sounds [3] 14:1 44:10 83:10 speak [6] 67:23,25 71:3 71:11 80:8,17 special [3] 36:8 37:11 55:10 specific [3] 41:22 73:1 86:5 specifically [13] 13:14 48:18 49:3,17 50:2 52:11 54:9 58:17 72:12,17 73:21 82:15 88:1 split [3] 15:1 35:18 87:22 splitting [1] 89:15 spoke [1] 4:17 spread [4] 19:4,10 23:8 23:14 spreading [1] 21:11 spreadsheet [7] 50:5,11 50:13,19 53:2,2,5 St [2] 96:7,10 stability [1] 7:23 stabilization [11] 7:17 7:24 8:2,20 9:12 10:19 10:21,22,23 11:16 13:3 stabilizes [1] 4:21 stabilizing [2] 7:10 9:7 stages [1] 55:1 stand [3] 32:5 70:23 71:15 standard [1] 77:10 start [1] 93:11 started [6] 62:7 65:1,2 65:20 91:9 92:15 starting [1] 14:6 starts [2] 92:19 93:10 statement [1] 4:23 statements [1] 12:13 states [1] 75:4 station [2] 82:18 92:4 stayed [2] 41:13,14 stays [2] 28:17,24 step [1] 45:8 Stephenville [1] 41:13</p>	<p>still [6] 7:21 11:24 16:16 27:12 62:19 90:15 story [1] 39:6 stretched [1] 39:20 strictly [1] 87:13 strong [1] 41:21 structure [2] 39:15 45:16 struggling [1] 30:16 studied [1] 90:18 study [21] 15:25 16:5,8 16:18 17:12 18:14 19:18 23:25 25:15 26:7 31:25 32:10 33:4 36:17,22 51:15 55:21 56:4 57:3 57:23,24 stuff [5] 86:16,17 88:20 89:9,9 subdivisions [1] 58:18 subject [6] 39:23 64:2,7 67:15,17 93:16 subjective [1] 88:11 submission [2] 17:9 68:22 submitted [1] 42:15 subsequent [1] 27:8 subsequently [1] 63:9 subsiding [1] 40:2 subsidy [10] 38:8,14,19 39:19,25 40:4 41:21 47:6 47:22 48:4 substantial [3] 11:14 52:17 58:3 such [4] 16:12 52:1 55:19 85:17 Sudbury [3] 82:4,6,13 sufficiently [1] 51:24 suggest [1] 88:3 suggested [3] 48:20 49:11 66:6 suggestions [1] 24:10 summarizes [1] 69:14 summary [1] 8:24 supply [8] 4:18 5:8,9 6:24 9:22,25 27:23 28:4 supposed [2] 41:17 90:2 surprised [1] 66:19 switch [2] 82:19 92:5 Swore [1] 59:25 SWORN [1] 60:3 system [17] 1:10 2:21,25 16:13,25 17:2 23:12 27:5 27:25 31:6 34:8,9 56:16 65:10 76:22 87:9,16 systems [1] 89:4</p> <hr/> <p style="text-align: center;">-T-</p> <hr/> <p>table [3] 63:16 66:22 70:21 takes [3] 33:23 83:6 84:25 taking [1] 21:10</p>	<p>talks [1] 5:5 Teck [2] 17:15 52:17 telecommunications [1] 86:17 ten [2] 41:8 83:13 term [7] 12:9 14:1 39:25 40:4 41:21 86:19 91:17 termed [1] 13:22 terminal [2] 82:18 92:4 terms [14] 3:19 20:18,20 28:15 70:16 72:11 73:10 73:20 74:15 76:15 80:2 81:25 82:14 88:6 test [19] 8:17,17 10:12 11:19 18:22,24 23:6 30:12,20 36:14 37:1,5,6 41:22 52:24,25 70:17 87:4 90:5 testified [2] 26:2 63:3 testify [1] 63:1 testimony [6] 31:11 36:6 44:24 62:9,10,11 testing [3] 51:14 93:4,7 tests [5] 8:23,24 9:6 10:1 10:10 thank [21] 48:8,15 53:21 53:22,22 58:25 59:5,5,8 59:10 60:6 69:16,24 72:4 74:13 76:4 78:16 94:6,9 94:13,18 thankfully [1] 46:8 theirs [1] 67:11 therefore [1] 36:15 they've [2] 8:14 90:18 thinking [3] 9:24 93:15 93:25 third [3] 65:12 69:6 89:17 THOMAS [3] 48:12 60:3 74:10 thought [2] 13:16 14:12 thoughts [1] 2:12 thousand [5] 55:11 57:20,22,23 58:18 three [3] 11:22 63:3 68:4 through [18] 5:7 7:9 9:1 11:21 14:19 24:21 35:24 36:18 52:11 54:24,25 56:22 65:2 66:5,9,20 74:15 90:10 throughout [2] 87:7 93:8 times [2] 63:4 64:13 today [4] 12:5 89:4 94:2 94:4 today's [2] 34:20 53:4 too [2] 66:11 90:23 took [7] 13:6 16:3 19:3 44:7 57:6 60:19 88:20 tool [1] 31:21 top [2] 15:7 17:22 total [6] 27:20 29:15,18 44:19 65:10 67:7 totally [1] 88:25</p>	<p>touch [1] 7:15 towards [1] 56:14 track [6] 55:22 56:2,3 58:23 89:3,5 traditional [1] 9:24 transcribed [1] 96:7 transcript [3] 7:12 25:6 96:3 transfer [4] 38:7 41:24 42:1 43:15 transferred [1] 43:22 transferring [1] 9:8 transformer [2] 92:22 92:23 transformers [7] 64:17 68:14 82:19 85:25 92:11 92:21,25 transmission [6] 82:18 85:24 92:5,11 93:13,14 trapped [1] 57:25 treated [2] 57:15,16 treating [1] 46:10 treatment [1] 20:1 tries [1] 31:6 trouble [2] 2:23 58:6 true [2] 31:2 96:2 try [3] 8:6,14 34:20 trying [8] 9:21 15:6 30:7 30:10 34:15 35:24 70:10 81:25 turn [4] 13:5 14:4 37:25 92:18 twelve [2] 19:5,10 two [17] 7:15 15:2 21:8 41:15 45:11 50:1 55:16 57:9 58:9 60:7 62:2 64:3 72:11 73:4 80:18 82:18 91:10 type [13] 7:17,18 9:20 13:3 16:14 17:15 53:11 56:17,19 75:16,22 76:10 89:9 types [1] 61:8 typical [1] 56:18</p> <hr/> <p style="text-align: center;">-U-</p> <hr/> <p>Uh-hm [5] 18:4 31:17 85:4,11 86:11 uncertainty [1] 71:4 under [7] 9:4 29:23 47:22 56:19 64:25 77:18,22 underline [1] 33:5 underlying [2] 31:19 36:21 understand [15] 13:13 25:22 27:15 28:15 44:24 49:8 53:5 59:22 69:19 70:5,18 79:5,17 83:4 86:24 understated [1] 21:5 understood [8] 49:1 50:10,18 51:1,9,23 54:10 75:16</p>
--	--	--	--	---

<p>undertake [2] 20:16 77:12</p> <p>undertaking [12] 1:6,8 25:8 26:12 27:1 36:4 70:11,13,20 78:18,19,23</p> <p>unfortunate [2] 46:8 47:14</p> <p>Unfortunately [2] 33:23 35:7</p> <p>units [6] 23:8,15 27:24 33:22 34:13 36:23</p> <p>university [2] 60:19 66:18</p> <p>unless [1] 74:3</p> <p>unprecedented [2] 38:7 46:7</p> <p>unreasonable [2] 85:16 91:2</p> <p>unusual [2] 8:17 47:14</p> <p>up [53] 1:23 3:14 5:22,25 7:16 8:8 11:7,8 13:6 14:4 14:19 15:3,8 17:7,20 18:15 27:13,16,25 30:10 31:10,11 32:19 33:20 37:6,15 38:24 39:3,17 41:10,13,14 42:3 43:6 45:13 46:22 53:7,7 54:5 55:7 56:25 60:20 65:15 66:2 69:12 76:16,21 81:6 87:1,3,11,14,17</p> <p>upgrade [1] 1:12</p> <p>upside [7] 33:7,9,10,12 34:19 41:18,20</p> <p>used [18] 11:22 12:9 14:2 16:24 49:10,19 50:6,12 50:19 52:2 66:5 72:19 73:14,16,22,22 92:24 93:22</p> <p>uses [1] 15:15</p> <p>using [5] 19:22 47:5,23 53:1 88:24</p> <p>usual [1] 8:17</p> <p>usually [1] 38:18</p> <p>utilities [7] 2:17 3:4 9:20 75:5 79:13 81:16 96:6</p> <p>utility [10] 3:1 6:5,11 8:21 9:4,16 10:8 49:19 55:15 93:23</p> <p>utility's [2] 8:9 10:14</p>	<p>57:3 65:18 72:16</p> <p>values [3] 16:21 19:22 19:23</p> <p>variable [3] 9:3 10:3,4</p> <p>variables [2] 8:21,22</p> <p>variance [1] 5:8</p> <p>variation [9] 5:10 39:5 40:9,19,21 43:3,5 44:20 47:2</p> <p>various [2] 17:10 61:8</p> <p>vary [1] 10:6</p> <p>version [1] 16:4</p> <p>vicinity [1] 84:9</p> <p>view [4] 7:1 68:11 91:7 91:13</p> <p>viewed [2] 5:10 68:12</p> <p>views [1] 2:18</p> <p>virtually [1] 77:4</p> <p>virtue [1] 43:10</p> <p>volume [3] 9:25 55:24 58:10</p> <p>volumes [3] 35:8 68:20 68:21</p>	<p style="text-align: center;">-Y-</p> <p>year [27] 9:3 10:4,7 11:21 12:17,22 13:1 17:17 18:22,24 21:11 23:6 27:9 27:9 29:19 30:12,20 36:14 37:2,5,7 39:2,13 63:5 64:24 77:3 87:4</p> <p>years [21] 3:3,10 11:23 12:23,23 18:10 25:15 26:13 27:6 33:23 37:16 41:8 45:25 47:6 61:8,11 61:18 62:24 74:16 89:2 92:24</p> <p>yesterday [17] 1:24 4:17 7:9 13:7,9 14:21 15:6 23:5,18 25:6 26:2 36:7 36:25 48:16 54:10 64:13 88:5</p> <p>yesterday's [1] 69:13</p> <p>yet [3] 34:22 41:19 64:22</p> <p>yielding [1] 51:15</p> <p>Young [12] 71:2,19 72:3 75:24 76:1 78:20 79:2,8 79:12 80:7,25 81:7</p> <p>yourself [4] 15:18 72:13 72:18 93:5</p> <p>Yukon [3] 55:5 56:24 57:7</p>	<p style="text-align: center;">-W-</p> <p>wait [1] 50:20</p> <p>walked [1] 14:19</p> <p>wars [1] 74:15</p> <p>water [1] 12:22</p> <p>ways [1] 12:9</p> <p>weak [2] 46:1 60:19</p> <p>weather [1] 14:10</p> <p>website [2] 79:14 80:15</p> <p>WHALEN [1] 94:17</p> <p>whatsoever [1] 40:23</p> <p>whoa [1] 65:15</p> <p>whole [1] 65:10</p> <p>wholly [1] 40:3</p> <p>Wilson [2] 5:3,5</p> <p>Wilson's [1] 5:21</p> <p>wind [3] 10:2 63:21,25</p> <p>wish [5] 34:21 59:22 70:7 70:20 74:20</p> <p>within [2] 10:4,6</p> <p>without [1] 3:12</p> <p>witness [3] 59:13 70:6 71:22</p> <p>witnesses [1] 3:18</p> <p>wood [1] 62:3</p> <p>word [7] 10:21 38:18 44:5,14 48:4 75:9,10</p> <p>words [1] 5:2</p> <p>worked [6] 61:7,10,18 62:1,22 90:12</p> <p>world [2] 38:22 39:4</p> <p>worlds [3] 22:19 23:10 23:23</p> <p>worth [3] 64:17 82:17 90:22</p> <p>written [1] 70:12</p> <p>wrong [1] 93:6</p>	
<p style="text-align: center;">-V-</p> <p>V-125 [1] 73:5</p> <p>V-NLH-083 [1] 65:25</p> <p>Vale [36] 13:13 15:13 17:19 18:9,17 22:22 24:5 24:5,11 27:13 31:7 33:6 33:15 36:8 37:11,22 41:12 48:21 55:20 56:20 64:14,22 65:4 68:23 69:7 76:17,20 77:12 80:2 82:15 83:6 84:25 87:1 87:12 88:15 89:14</p> <p>Vale's [4] 34:24 35:23 82:3,6</p> <p>validly [1] 39:12</p> <p>value [6] 55:25 56:7,11</p>				