

NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

Hearing Transcript

**Newfoundland and Labrador Hydro
2017 General Rate Application**

August 7, 2018

The Board:

Darlene Whalen, Chair and CEO
Dwanda Newman, Vice-Chair
James Oxford, Commissioner

Board Counsel/Staff:

Jacqueline Glynn, Board Counsel
Maureen Greene, Q.C., Hearing Counsel
Cheryl Blundon, Board Secretary

Newfoundland and Labrador Hydro:

Geoffrey Young, Counsel
Alex Templeton, Counsel

Witness/Witnesses

Mr. Kevin Fagan,
Director of Regulatory Affairs,
Newfoundland and Labrador Hydro

Newfoundland Power Inc.:

Gerard Hayes, Counsel
Liam O'Brien, Counsel

Consumer Advocate:

Dennis Browne, Q.C.

Island Industrial Customers

Paul Coxworthy, Counsel
Denis Fleming, Counsel
Dean Porter, Counsel

Labrador Interconnected Group*

Senwung Luk, Counsel

Iron Ore Company of Canada*

Benoit Pepin, Counsel

*Note – These two parties will not be in attendance every day

Page 1

1 (9:03 a.m.)
 2 CHAIR:
 3 Q. Good morning, everyone. I understand
 4 there's no preliminary matters, so I guess
 5 we can go right back to you, Mr. Browne.
 6 BROWNE, Q.C.:
 7 Q. Thank you, Chair. Good morning,
 8 Commissioners. Good morning, Mr. Fagan.
 9 MR. FAGAN:
 10 A. Good morning, Mr. Browne.
 11 BROWNE, Q.C.:
 12 Q. And I ask if we go to CA-NLH-054. This is a
 13 question that we put to Hydro, "Would it be
 14 more cost effective for Hydro to directly
 15 solicit opportunities for energy purchases
 16 from other jurisdictions rather than
 17 contract with Nalcor Marketing to do so? Is
 18 Hydro paying any of the costs associated
 19 with Nalcor Energy Marketing? What
 20 jurisdictions has Nalcor Energy Marketing
 21 approached to solicit opportunities, with
 22 what results", and part of your answer you
 23 state there in the second sentence, "Hydro
 24 does not currently have in place the
 25 necessary tools and expertise to allow it to

Page 2

1 transact in external markets". What do you
 2 mean by that, Mr. Fagan?
 3 MR. FAGAN:
 4 A. Well, Hydro is not in the business of energy
 5 marketing. We're an electric utility
 6 serving the customers on the island, so
 7 we're not out practicing the sales and
 8 purchase of energy in the market. We're not
 9 the best people to be out getting the best
 10 deal for customers. Nalcor has a branch,
 11 energy marketing branch, that does that,
 12 it's their job. So they're better capable
 13 to do that, to provide benefits to customers
 14 than Hydro employees that wouldn't have such
 15 experience.
 16 BROWNE, Q.C.:
 17 Q. But as the manager of Regulatory Affairs,
 18 and as a conduit, I guess, between Nalcor
 19 and Hydro, this Board, and this hearing, how
 20 can we be sure that what Nalcor Marketing is
 21 doing is efficient and the lowest possible
 22 cost for consumers when you admittedly don't
 23 have in place the necessary tools and
 24 expertise to allow it to transact in
 25 external markets? How do you review what

Page 3

1 they have done before telling the Board
 2 through these hearings that you've got a
 3 good deal?
 4 MR. FAGAN:
 5 A. Well, I mentioned yesterday the ponding
 6 agreement that is being developed for filing
 7 with the Board, which will lay out the –
 8 that will present the approach and the terms
 9 from a benefits perspective between Nalcor
 10 Energy Marketing, so the Board would have
 11 exposure to review – the information to
 12 review our relationship for that type of a
 13 transaction, how the sharing should benefit
 14 between customers, but with regard to being
 15 sure that customers get the best deal, well,
 16 I think all the information with respect to
 17 the transactions that will occur will be
 18 made available to the Board and its auditors
 19 to ensure that the benefits can be
 20 maximized. There's a requirement to
 21 maintain confidentiality to some degree, but
 22 the information on what's being achieved
 23 and, I guess, what return is being achieved
 24 for customers through the marketing arm of
 25 Nalcor for Hydro's resources to be sold,

Page 4

1 that information will be available for the
 2 Board and Board staff to review, and have an
 3 independent audit if they want to determine
 4 if it's good value.
 5 BROWNE, Q.C.:
 6 Q. From a ratepayers perspective, the
 7 ratepayers are cut out of this process.
 8 There's no public scrutiny of what's gone on
 9 and what Nalcor Marketing is doing. I mean,
 10 it's not even a star chamber proceeding. At
 11 least, in the star chamber there was a
 12 hearing, it wasn't public, but there was a
 13 hearing. It even lacks that standard, which
 14 was no standard at all. So it's all done by
 15 envelopes, there's no public scrutiny. How
 16 can consumers be assured that they're
 17 getting good value here?
 18 MR. FAGAN:
 19 A. Well, I think – I mean, the Board has its
 20 role and Hydro has its role, and to go back
 21 to the stated case, it talked about the
 22 management role versus the Board's oversight
 23 role, and certain roles of Hydro with regard
 24 to Hydro has the right to proceed and manage
 25 the company and manage its business, and

Page 5

1 then has to prove to the Board based on the
 2 end result that it's making the right
 3 decision. So you get into the question of
 4 how much management should the Board exert
 5 versus Hydro exert. So, I think, the Board
 6 generally trusts Hydro to manage its affairs
 7 and the Board reviews that management based
 8 on the end result to determine if it's
 9 reasonable. So I think you're getting into
 10 "should the Board be managing the marketing
 11 aspect of exports or should Hydro, through
 12 its relationship with Nalcor, go out and
 13 proceed with it", with the Board informed on
 14 the relationship and how it's to work, and
 15 then the Board can judge the results based
 16 on what occurs. The Board has the authority
 17 at that point to determine whether it's a
 18 good deal. So, I think, that's the general
 19 relationship with regard to management of a
 20 utility.
 21 BROWNE, Q.C.:
 22 Q. Now Nalcor Energy Marketing, are they
 23 marketing power for sale, I guess, out of
 24 the recall when it's available into the
 25 international markets?

Page 6

1 MR. FAGAN:
 2 A. Historically Nalcor Energy Marketing has
 3 been selling recall power through the
 4 market, yes.
 5 BROWNE, Q.C.:
 6 Q. So Nalcor Energy Marketing is selling it?
 7 MR. FAGAN:
 8 A. Well, prior to the Labrador Island Link
 9 coming into service, the excess energy from
 10 Labrador is being sold by Nalcor Energy
 11 Marketing, and the benefits are being
 12 accrued to Nalcor Energy Marketing. So with
 13 the Labrador Island Link now making that
 14 energy available for serving customers on
 15 the island, the benefits of that power can
 16 now come to customers. So if Hydro doesn't
 17 use it for customers, Nalcor Energy
 18 Marketing can proceed and sell the excess to
 19 the market, is my understanding.
 20 BROWNE, Q.C.:
 21 Q. And does Emera have any role in that in the
 22 sale of that power?
 23 MR. FAGAN:
 24 A. Not to my understanding.
 25 BROWNE, Q.C.:

Page 7

1 Q. Did they have a role prior to Nalcor Energy
 2 Marketing getting involved, do you know?
 3 MR. FAGAN:
 4 A. Yes, I think there's a bit of history.
 5 BROWNE, Q.C.:
 6 Q. Yeah, that's what we're interested in, the
 7 history. Give us that.
 8 MR. FAGAN:
 9 A. I've got a lot of history, but not
 10 necessarily with Hydro, but it's my
 11 understanding that for a number of years the
 12 recapture energy was sold directly to Quebec
 13 in the contract, and then once that contract
 14 expired, there was an agreement with Emera,
 15 and Emera was doing the marketing on behalf
 16 of Hydro for the recapture energy being sold
 17 to the markets. Then over time, Nalcor
 18 developed its own arm of marketing and so it
 19 transferred to Nalcor Energy Marketing.
 20 That's the history, I understand.
 21 BROWNE, Q.C.:
 22 Q. Now before Emera came on the scene, who was
 23 on the scene then taking the recapture power
 24 and putting it into the market?
 25 MR. FAGAN:

Page 8

1 A. It's my understanding it wasn't going into
 2 the market at that point. It was being sold
 3 directly to Quebec through a contract.
 4 BROWNE, Q.C.:
 5 Q. It was being sold through Quebec?
 6 MR. FAGAN:
 7 A. Directly to Quebec.
 8 BROWNE, Q.C.:
 9 Q. And was there ever an analysis done between
 10 when that power was being sold to Quebec
 11 directly and Quebec was the conduit for the
 12 sale, I guess, if we can put it that way,
 13 and when Emera got involved. Which was more
 14 economic, was there ever an analysis done of
 15 that, are you aware?
 16 MR. FAGAN:
 17 A. I haven't seen the results of it, but I've
 18 been told that at times they did better
 19 while they were selling to Quebec than they
 20 did while marketing. That's my
 21 understanding, but I don't know if that's
 22 the case all the time.
 23 BROWNE, Q.C.:
 24 Q. Yeah, I think that was the talk that they
 25 were doing better when they did it through

Page 9

1 Quebec, yet they gave it to Emera and there
 2 was politics involved, was there not, they
 3 didn't want to give it to Hydro Quebec?
 4 MR. FAGAN:
 5 A. I couldn't answer that. I wasn't involved
 6 in that discussion. Also with respect to
 7 the profitability of it, I think it would
 8 depend on what happened. If you're looking
 9 over different time periods, the market may
 10 have been different at the time when it was
 11 being sold to Quebec as well, versus post
 12 Quebec. So if the market got more depressed
 13 with regard to the price after the contract
 14 with Quebec, that could explain the fact
 15 that your profitability would have declined.
 16 So over different time periods comparability
 17 of earnings were not necessarily the same.
 18 BROWNE, Q.C.:
 19 Q. And it's been stated publicly that the whole
 20 purpose of the Muskrat Falls Project was to
 21 get around Quebec. Have you heard that?
 22 MR. FAGAN:
 23 A. I've read it in the media.
 24 BROWNE, Q.C.:
 25 Q. Yes. Can you go to CA-NLH-263, and there's

Page 10

1 an attachment to that, CA-NLH-263,
 2 Attachment 1, and we're dealing with New
 3 England day ahead market and the way it's
 4 delivered to the interconnected system over
 5 a period of time, and the US dollar, and if
 6 we just take you there to the attachment,
 7 Mr. Fagan, of course, here we're dealing
 8 with the Maritime Link, aren't we, this
 9 whole scenario?
 10 (9:15 a.m.)
 11 MR. FAGAN:
 12 A. Yes. Excuse me, Caryn, can you just zoom in
 13 a little bit? Just move over to the far
 14 right, please. Thank you. Yes, that's
 15 correct.
 16 BROWNE, Q.C.:
 17 Q. That's the time frame, and we look at New
 18 Brunswick, Nova Scotia, the Maritime Link,
 19 and Newfoundland, the cost of energy getting
 20 it out of New England, and then we go to New
 21 Brunswick and we see New Brunswick wheeling
 22 costs, they're additional, and then we see
 23 Nova Scotia wheeling costs, they're
 24 additional, and there's no charge for the
 25 Maritime Link, we got a bargain there. Now

Page 11

1 that – just given that all these
 2 jurisdictions are getting something and New
 3 England would get something because it's the
 4 point of origin, of course, when we are into
 5 the Labrador Island Link, the nearest supply
 6 of power would be Hydro Quebec, would it
 7 not?
 8 MR. FAGAN:
 9 A. Yes, that's right.
 10 BROWNE, Q.C.:
 11 Q. So if we were to purchase power, of course,
 12 we would have to purchase it through their
 13 system, is that not correct, to bring it
 14 down through the Maritime Link?
 15 MR. FAGAN:
 16 A. To bring it down –
 17 BROWNE, Q.C.:
 18 Q. Other than the recall, other than –
 19 MR. FAGAN:
 20 A. To bring it down through the Labrador Island
 21 Link?
 22 BROWNE, Q.C.:
 23 Q. Yeah, the Labrador Island Link, other than
 24 the recall power?
 25 MR. FAGAN:

Page 12

1 A. Yes, a direct purchase. Direct purchase
 2 from Quebec, or through Quebec through the
 3 reservation.
 4 BROWNE, Q.C.:
 5 Q. Is there any politics involved here where
 6 Nalcor Energy Marketing doesn't want to deal
 7 with Quebec for any particular reason? Do
 8 we know if that's the case in making
 9 purchases?
 10 MR. FAGAN:
 11 A. Not that I'm –
 12 BROWNE, Q.C.:
 13 Q. Can we be assured that politics have been
 14 put aside and we're getting the best value
 15 for our buck by going probably directly to
 16 Hydro Quebec, the next door, to bring more
 17 power down as it becomes available?
 18 MR. FAGAN:
 19 A. I'm certainly not aware of any. To me,
 20 they're out trying to get the best deal
 21 possible.
 22 BROWNE, Q.C.:
 23 Q. But it just goes to show that we would be
 24 better off in an open transparent hearing to
 25 deal with some of these matters and to

Page 13

1 assure consumers that, unlike the situation
 2 with Emera in order to not deal with Quebec
 3 directly, we bit the bullet, how would we
 4 know that that's not going on again?
 5 MR. FAGAN:
 6 A. Well, I think as long as the reservation is
 7 through Quebec, you've got the option of
 8 either buying from Quebec or buying from
 9 somewhere else. So I think that gives you
 10 certainty that the customers have the option
 11 for the best deal. If you only had the
 12 option to buy from Quebec, then you couldn't
 13 get the flow through Quebec. So at least
 14 this way you can say, okay, Quebec, I've got
 15 an option to buy from Ontario, New England,
 16 wherever, or I can get power from New
 17 Brunswick, Nova Scotia, or I can buy from
 18 you, but wherever I get the best deal
 19 because I've got other avenues now, so
 20 having that reservation through Quebec gives
 21 the customers the opportunity of getting it
 22 from a cheaper source if Quebec doesn't give
 23 you the better price, but Quebec can give
 24 you a better price, fine, but you've got
 25 options now. So it opens the door, it gives

Page 14

1 fairer competition, so customers can be
 2 assured they're getting a better deal.
 3 BROWNE, Q.C.:
 4 Q. But on its face, there would be less
 5 wheeling costs if you dealt directly with
 6 Quebec?
 7 MR. FAGAN:
 8 A. Well, yes, less wheeling costs, but Quebec
 9 would be aware that there's less wheeling
 10 costs because all the marketing agencies
 11 look at what other costs are incurred in
 12 order to bring it from different
 13 jurisdictions. So they would most likely
 14 bid their price up recognizing that there's
 15 less wheeling costs to be slightly below
 16 what they're anticipated price would be if
 17 you brought it from another jurisdiction.
 18 Everybody is trying to make the maximum
 19 profit on the transaction.
 20 BROWNE, Q.C.:
 21 Q. And when you look at this chart here that is
 22 still up, there's lots of losses here. As it
 23 goes through Quebec there are losses, as it
 24 goes through New Brunswick there are losses,
 25 and Nova Scotia there are losses, and the

Page 15

1 Maritime Link there are losses. If a more
 2 direct link, would there be less loss, or do
 3 you know?
 4 MR. FAGAN:
 5 A. Yes, there would be less loss, but that
 6 doesn't necessarily mean the price would be
 7 less, but there would be less losses. If
 8 you notice on the far right column, the
 9 average price throughout the day is in the
 10 neighbourhood – in the range of just under
 11 10 cents to almost 11 cents a kilowatt hour.
 12 So even though the price in US on that day
 13 is a low of about 2 cents a kilowatt hour to
 14 a high of 6.4 cents a kilowatt hour, by the
 15 time it gets to Newfoundland you're dealing
 16 with 10 to 11 cents a kilowatt hour. That
 17 power may not be accessible at the times
 18 when the island needs it. It depends on
 19 capacity constraints. So the assumption
 20 that we can just get it cheaper from the
 21 market than what we could get it over the
 22 Maritime Link through bilateral agreements
 23 and stuff is not always a safe assumption
 24 because you've got to plan the system
 25 knowing you've got the power available. So

Page 16

1 when you hear about the low market price
 2 pool rates, by the time you get it here
 3 that's not necessarily the price you're
 4 paying, and it also doesn't give you that
 5 certainty as well. So those factors are
 6 coming into play when Nalcor Energy
 7 Marketing is making their decisions.
 8 BROWNE, Q.C.:
 9 Q. Have you been party to any discussions about
 10 giving consideration to forming a single
 11 energy marketer for all Canadian Maritime
 12 Atlantic provinces?
 13 MR. FAGAN:
 14 A. I haven't been any of those discussions. I
 15 know there's been discussions about - not
 16 that I've been involved with, but I read a
 17 paper, I forget the author – John Todd was
 18 his name and he's testified before this
 19 Board, works with Elenchus, and he's working
 20 for Atlantic Canada. I think it's some
 21 government sponsored agency, which was
 22 talking about reducing the barriers for
 23 transactions among Atlantic utilities and
 24 more of a partnership, so more of a regional
 25 transmission organization and the pooling of

Page 17

1 resources in Atlantic Canada for benefits
 2 for all Atlantic Canadians. So there's been
 3 some discussions of that, but nothing I've
 4 been a direct participant in.
 5 BROWNE, Q.C.:
 6 Q. And, of course, I understand your position.
 7 You're just a conduit here, you can only
 8 recite to this Board what you've heard
 9 because you're not with Nalcor and Nalcor
 10 Marketing Energy, and we don't have the
 11 benefit of their firsthand evidence either?
 12 MR. FAGAN:
 13 A. Well, on these particular matters, I don't
 14 know if there's much additional information
 15 that they would be able to provide to you in
 16 this particular hearing.
 17 BROWNE, Q.C.:
 18 Q. You don't know, but there could be.
 19 MR. FAGAN:
 20 A. Okay, I agree.
 21 BROWNE, Q.C.:
 22 Q. Thank you. Can we go to the famous
 23 footnote, Footnote 8, page 3, of the
 24 refiling, the 51.4 million in the 2019 test
 25 year for the LIL, LTA, and the O&M costs.

Page 18

1 MS. MASSIE:
 2 Q. Sorry, Mr. Browne?
 3 BROWNE, Q.C.:
 4 Q. Footnote 8, page 3, of the refiling.
 5 MS. MASSIE:
 6 Q. Supplemental –
 7 MR. FAGAN:
 8 A. Supplemental evidence.
 9 BROWNE, Q.C.:
 10 Q. Supplemental, yes. Sorry. Now, the LIL and
 11 the LTA are new facilities coming in as – a
 12 lot of money's been spent on it, brand new
 13 facilities and they're still working out
 14 kinks in them, in the LIL. We don't quite
 15 know when exactly the LIL will be available.
 16 All that has been discussed. Have you had
 17 any discussions with Nalcor as to why the
 18 costs are so high for the operation and
 19 management costs, 51.4 million, for a new
 20 facility? Have you asked that?
 21 MR. FAGAN:
 22 A. We've asked that.
 23 BROWNE, Q.C.:
 24 Q. And what's the answer?
 25 MR. FAGAN:

Page 19

1 A. Well, we've asked for – Ms. Hutchens
 2 provided evidence with regard to meetings
 3 that have occurred and information that's
 4 been provided and Mr. LeBlanc's been
 5 involved in reviewing the types of
 6 expenditures that they have in their O&M
 7 plan for maintaining these facilities for
 8 2018 and '19. So, there's been questions
 9 asked. The information that was provided, I
 10 think, is – well, I think it's relatively
 11 stale because it's more than a year old and
 12 they'll have a new budget prepared in
 13 September. So, we'll see what that brings,
 14 but the numbers – when you say that the
 15 numbers are high and they certainly may well
 16 be high, I think the reason that everybody
 17 asks the question of why they're high is
 18 because if you went to that presentation
 19 that Mr. O'Brien brought me to yesterday, it
 20 was showing that the original budget was
 21 only 34 million and now when you see it's
 22 109 million, well, it's certainly high. I'm
 23 not sure if the original forecast was just
 24 really low and incorrectly low or whether
 25 the new numbers are really high. But, it

Page 20

1 certainly seems to be a material O&M
 2 expense. I wouldn't disagree.
 3 BROWNE, Q.C.:
 4 Q. Sure. It seems to be worthy of a lot of
 5 questions.
 6 MR. FAGAN:
 7 A. Well, there's been a lot of questions asked
 8 from Hydro to Nalcor Power Supply with
 9 respect to those costs.
 10 BROWNE, Q.C.:
 11 Q. And did Hydro do any cost comparisons to
 12 other operation and management costs for
 13 similar facilities?
 14 MR. FAGAN:
 15 A. When the numbers came to me, there was
 16 discussion of going out and doing some
 17 research, from looking at other
 18 jurisdictions, transmission benchmarking as
 19 such, and say okay, if you had facilities of
 20 this size, like distance of number of
 21 kilometres for the dc lines and the LTA,
 22 what would you expect if you looked at
 23 comparisons of other utilities.
 24 So, I talked to our consultants,
 25

Page 21

1 Christensen, and asked them to do some
 2 research and come back with some estimates
 3 of what they would think that the numbers
 4 might be. So, they came back with a
 5 document giving me estimates of ranges of
 6 what they would anticipate for overhead
 7 facilities versus HVdc facilities. One of
 8 the struggles they were having, I don't
 9 think they had – I think they got a wealth
 10 of information with regard to the ac
 11 facilities but limited information on the dc
 12 facilities. So, they provided me some
 13 estimates of what they thought would be
 14 reasonable.
 15 BROWNE, Q.C.:
 16 Q. And?
 17 MR. FAGAN:
 18 A. The – let me see here.
 19 BROWNE, Q.C.:
 20 Q. You can just give it to us generally or if
 21 you want to go specifically, that's fine.
 22 MR. FAGAN:
 23 A. I think for the LTA, they provided –
 24 Labrador Transmission Assets, they provided
 25 ranges that they thought reasonable range

Page 22

1 based on benchmarking that they had done
 2 would be between around 4.5 million and
 3 around 7.1 million, and I think the number
 4 for Lab Transmission Assets being provided
 5 by Power Supply is around 9.1 million. So,
 6 it's about two million dollars above the
 7 high end of the range that Christensen had
 8 estimated.
 9 On the dc facilities, well, they had a
 10 lot of caveats around the dc facilities
 11 because they really only found two others
 12 that they were looking at because a lot of
 13 the information is not publicly available.
 14 So, but based on their analysis, they came
 15 up with a range of around 17.4 million to
 16 25.5 million and the estimates provided by
 17 Nalcor Power Supply are around 42.3 million.
 18 So, they were materially above the range
 19 that Christensen had provided. But they did
 20 have a lot of caveats about the limited
 21 information available.
 22 BROWNE, Q.C.:
 23 Q. Why was their information limited when it is
 24 something that – did Hydro commission this,
 25 this study?

Page 23

1 MR. FAGAN:
 2 A. No, they went out contacting utilities
 3 asking -
 4 BROWNE, Q.C.:
 5 Q. Who's they?
 6 MR. FAGAN:
 7 A. Christensen. So, Christensen went out and
 8 did this research and reported back. And
 9 but, they found most utilities with dc lines
 10 didn't have the detailed information
 11 available, publicly available, for the
 12 analysis.
 13 BROWNE, Q.C.:
 14 Q. This whole positioning is somewhat awkward.
 15 You work for Hydro and Hydro is a company
 16 owned by Nalcor. Are you – I don't envy you
 17 having to try to take on that crowd and say
 18 "you're charging us too much", push back.
 19 Are you able to give a push back or who is
 20 giving a push back there?
 21 (9:30 a.m.)
 22 MR. FAGAN:
 23 A. Well, so, when Nalcor Power Supply came with
 24 their numbers, and because they increased
 25 from 34 million to 109 million, we said,

Page 24

1 well, you know, from a regulatory
 2 perspective, we've got an obligation to
 3 review it for reasonableness. So, that's
 4 why I requested – well, in discussion with
 5 the executive and such, we went out and
 6 asked for some information to be provided to
 7 test it. So, we provided this to Nalcor and
 8 so, said "okay, take a look at this and see
 9 if you can explain why your numbers are
 10 higher" – or high relative to these. So,
 11 they – I think they're doing further work,
 12 but I'm not sure what the new numbers would
 13 be. We'll see in September. But, yes, I
 14 agree, it's -
 15 BROWNE, Q.C.:
 16 Q. So, the new numbers could be lower than the
 17 51 million?
 18 MR. FAGAN:
 19 A. They could be. We – before the Production
 20 Panel got on the stand, we questioned them
 21 to see if there was any further updates and
 22 they said they didn't have any better
 23 information, but I got the impression that
 24 they thought their numbers were still
 25 reasonable, based on the best information

Page 25

1 that they had available at the time.
 2 BROWNE, Q.C.:
 3 Q. Right now, Hydro is paying nothing to Nalcor
 4 Energy Marketing, is that correct, for their
 5 services?
 6 MR. FAGAN:
 7 A. I believe that's correct.
 8 BROWNE, Q.C.:
 9 Q. Have you been notified that at some point
 10 Hydro will be charged for Nalcor Energy
 11 Marketing services?
 12 MR. FAGAN:
 13 A. With respect to the Pondering Agreement that I
 14 mentioned, there's – which will be presented
 15 to the Board for review – we're considering
 16 what's the value of the service being
 17 provided by Nalcor Energy Marketing and
 18 determining of the savings that are
 19 achieved, what proportion should go – could
 20 go to Nalcor Energy Marketing for their
 21 services versus what proportion should go to
 22 customers. In that particular Pondering
 23 Agreement, Nalcor Energy Marketing would
 24 take all the risk with regard to if there's
 25 spill as a result of ponding. So, they

Page 26

1 would incur any costs if there was losses
 2 associated with this ponding agreement. So,
 3 that agreement is in the works with respect
 4 to an application for the Board. So, the
 5 Board will be reviewing that to determine
 6 whether it's reasonable for what should be
 7 contributed or paid to Nalcor Energy
 8 Marketing for their services.
 9 BROWNE, Q.C.:
 10 Q. Now, in terms of for their services for
 11 dealing with the recall power, I guess we're
 12 not being charged for that. But, where
 13 Nalcor Energy Marketing is out purchasing
 14 power to bring into the province, are you
 15 being charged for that now? You're not?
 16 MR. FAGAN:
 17 A. Not to my understanding, no.
 18 BROWNE, Q.C.:
 19 Q. Will you be charged for that? Have you
 20 heard that you will?
 21 MR. FAGAN:
 22 A. No, there's no charges associated with any
 23 ongoing activities during the pre-
 24 commissioning period other than just, in my
 25 understanding, with regard to this ponding

Page 27

1 agreement that they may get a share of the
 2 savings that are – not so much savings;
 3 share of the profit that will be accrued
 4 because of the effort.
 5 BROWNE, Q.C.:
 6 Q. And while this ultimately will be paid for
 7 my consumers, I guess it's fair that they
 8 would not be paid any more than the cheapest
 9 contracting facility you could find out
 10 there to do the similar work?
 11 MR. FAGAN:
 12 A. I agree.
 13 BROWNE, Q.C.:
 14 Q. Should that be fair?
 15 MR. FAGAN:
 16 A. I wouldn't say the cheapest. I would say
 17 wherever you're going to get your best value
 18 for the service provided.
 19 BROWNE, Q.C.:
 20 Q. And I take your point. On page five, lines
 21 13 to 15 of the Supplemental Evidence, if we
 22 can go there, lines 13 to 15, it says "the
 23 key driver of the increase in net savings
 24 for 2018 is the reduction of 18.9 million in
 25 operating and maintenance costs for the LIL

Page 28

1 and the LTA due to the delay in the LIL in-
 2 service date. For 2019, there is an
 3 increase in forecast net savings due to an
 4 increase in off-island purchases over the
 5 LIL." Now, if the LIL is delayed, and it's
 6 already delayed, if it's delayed until 2019,
 7 for instance, what effect would that have on
 8 the costing?
 9 MR. FAGAN:
 10 A. Well, you would have – I haven't done it
 11 down to zero, but the – you'd have very
 12 little savings because any savings that you
 13 would achieve would be just the savings over
 14 the Maritime Link. So, Hydro would have a
 15 revenue deficiency for 2018 and that revenue
 16 deficiency would be proposed to be recovered
 17 through – well, under the settlement
 18 agreement, if these savings are reflected in
 19 rates, then rates will be set lower, but
 20 you'd have a balance owed say probably over
 21 40 million dollars to be recovered from
 22 future customers because there's 44 million
 23 in savings being provided through the rates
 24 that will be presented in this Supplemental
 25 Evidence.

Page 29	<p>1 BROWNE, Q.C.:</p> <p>2 Q. And in a similar vein, while we're on this</p> <p>3 topic, if you can go to Footnote 17, page</p> <p>4 six of the Supplemental Evidence. Footnote</p> <p>5 17 there of the Supplemental Evidence, it</p> <p>6 indicates an amount there of – that Hydro</p> <p>7 will still be producing in – and if the</p> <p>8 Maritime – if the Labrador Island Link comes</p> <p>9 in a timely fashion and say it is ready, as</p> <p>10 the evidence says, the Production Panel, the</p> <p>11 fall of 2018, it is ready and up and</p> <p>12 running, would there be efforts then to</p> <p>13 further displace any requirements for fuel</p> <p>14 at Holyrood? Why can't we get more power in</p> <p>15 over that at that point to displace any</p> <p>16 requirement for fuel at Holyrood by purchase</p> <p>17 agreements through Hydro Quebec or inter</p> <p>18 alia?</p> <p>19 MR. FAGAN:</p> <p>20 A. Well, it's my understanding in 2019. So,</p> <p>21 Holyrood would be primarily run for capacity</p> <p>22 purposes when we get into 2019, assuming all</p> <p>23 goes well with regard to the off-island</p> <p>24 purchases. So, you've got to maintain so</p> <p>25 much reserves on the system. So, you've got</p>	Page 31	<p>1 but their capacity forecast requirements was</p> <p>2 the same as in the previous forecast. So,</p> <p>3 with some systems like, for example heat</p> <p>4 pumps gets a lot of discussion. You've got</p> <p>5 – they may cut back our energy requirements,</p> <p>6 but on the coldest days of the year, it's</p> <p>7 got – the electric backup still cuts in.</p> <p>8 So, you still got to maintain the capacity</p> <p>9 on the system to meet the customer's load.</p> <p>10 That's actually one of the items with the</p> <p>11 elasticity, discussion of elasticity of</p> <p>12 customer's usage. We may see it more on</p> <p>13 energy than capacity. You actually have to</p> <p>14 look at elasticity of capacity separately</p> <p>15 from elasticity of energy because you could</p> <p>16 get a major reduction in energy requirements</p> <p>17 from customers, but not have that reduction</p> <p>18 in peak capacity requirements. So, Mr.</p> <p>19 Feehan talked about redundancy of Holyrood.</p> <p>20 From an energy perspective, materially less,</p> <p>21 but not necessarily from a capacity piece</p> <p>22 because there's separate products from a</p> <p>23 time of use perspective.</p> <p>24 BROWNE, Q.C.:</p> <p>25 Q. In terms of elasticity, there's been some</p>
Page 30	<p>1 limited amounts that you could use at times</p> <p>2 as well. So, you can't just all of a sudden</p> <p>3 shut Holyrood down because you need –</p> <p>4 because you got to balance, deal with the</p> <p>5 capacity and energy requirements. So, you'd</p> <p>6 still be – you still got Holyrood use for</p> <p>7 capacity requirements. So, that impacts the</p> <p>8 numbers as well. So, you'd still have</p> <p>9 production at Holyrood even if you had</p> <p>10 increased capacity that you could probably</p> <p>11 bring – you can only bring 225 megawatts</p> <p>12 over the Labrador Island Link and you've got</p> <p>13 so much you can bring over the Maritime</p> <p>14 Link, but even then, you want to have so</p> <p>15 much capacity on the island for maintaining</p> <p>16 system reserve is my understanding.</p> <p>17 BROWNE, Q.C.:</p> <p>18 Q. What's demand forecast right now? Where are</p> <p>19 we going with demand on the island itself?</p> <p>20 MR. FAGAN:</p> <p>21 A. Well, the capacity forecasts, the most</p> <p>22 recent forecast provided by Newfoundland</p> <p>23 Power in their General Rate Application had</p> <p>24 a slight reduction in their energy</p> <p>25 requirements for 2019, 33 gigawatt hours,</p>	Page 32	<p>1 talk around this hearing of whether Hydro</p> <p>2 has elasticity studies and on April 23rd,</p> <p>3 2018, in the transcript, if we can go there,</p> <p>4 April 23rd, 2018, page 114. Okay. I think</p> <p>5 we got it there. And I'm questioning your</p> <p>6 president, Mr. Haynes, regarding elasticity</p> <p>7 studies and I said, in line 13, "do you have</p> <p>8 elasticity studies? Mr. Haynes: I don't</p> <p>9 have elasticity studies for 18 cents. No,</p> <p>10 I'm not aware of one." Then I said "do you</p> <p>11 have any elasticity studies? Mr. Haynes:</p> <p>12 I've read papers by various people that have</p> <p>13 published them over the time." And then I</p> <p>14 asked "but you haven't commissioned any in</p> <p>15 reference to this particular situation? No,</p> <p>16 none."</p> <p>17 And then, the Production Panel, if we</p> <p>18 can go there, on July 17, 2018, and if we go</p> <p>19 to page 241, my colleague, Mr. Fitzgerald,</p> <p>20 at line 9 asked Mr. LeBlanc in reference to</p> <p>21 elasticity and elasticity studies and if</p> <p>22 they take elasticity studies into account.</p> <p>23 Mr. LeBlanc said, at line – "yes, elasticity</p> <p>24 is taken into account in the load forecast.</p> <p>25 We use an elasticity" -- again that's more</p>

Page 33

1 for the residential, and they take
 2 elasticity into account.
 3 But, while taking elasticity into
 4 account, there's no admission that there are
 5 actual elasticity studies undertaken. And
 6 then on the undertaking we asked for on the
 7 Thursday last, which was filed yesterday, in
 8 reference to this very matter, there's some
 9 more evidence coming out in reference to
 10 elasticity.
 11 Can you tell us, are there elasticity
 12 studies that Hydro has in reference to what
 13 will happen should electricity rates
 14 commence and upward trending from where they
 15 are now at 11.4 cents for residential
 16 consumers, based on the interim rates, to
 17 which we now know you are not entitled, 11.4
 18 cents to – upward from there? Have you done
 19 any elasticity studies to see at what point
 20 people will drop out of the system for
 21 electric heat or electric hot water boilers
 22 which are currently in usage?
 23 MR. FAGAN:
 24 A. Well, go to Undertaking 79 please.
 25 BROWNE, Q.C.:

Page 34

1 Q. Yes, Undertaking 79, that's correct.
 2 MR. FAGAN:
 3 A. We got it, yes. Geez, that was quick. So,
 4 I think it's quite clear from Undertaking 79
 5 that we build short-term elasticity effects
 6 into the – in the models for Hydro's
 7 forecast. So, elasticity is reflected in
 8 Hydro's forecast. The long-term elasticity
 9 being referred to here more related to cross
 10 elasticity, I guess, so cross price
 11 elasticity. So, as price increases
 12 materially, you're getting into more of an
 13 issue with comparability with competing
 14 sources. So, there's no explicit factor
 15 built into the models for short term. But I
 16 think the information provided in 79 is
 17 based on the historic elasticity effects
 18 that have been experienced by Hydro, what
 19 one would expect the consumption to change
 20 at different prices.
 21 I don't know if I'd necessarily call it
 22 a study. It's an analysis. I don't think
 23 Hydro's completed a study which analysed how
 24 much consumption would change. You've got
 25

Page 35

1 your historical analysis available which
 2 tells you what elasticity people are
 3 experiencing looking back, but going forward
 4 with a change that we're talking now, from
 5 12 cents to say 18 cents, for example, I
 6 don't think we've done a specific study to
 7 determine if our elasticity factor has
 8 changed from the historical point three. I
 9 think we may have assumed – but I think
 10 we've made assumptions based on the cross
 11 price elasticity of demand that at some
 12 point we will lose a lot of customers
 13 converting to other sources. I think that's
 14 what's presented on page 3 of 3 in
 15 Undertaking 79; that it shows over the
 16 longer term, by 2025 in this particular
 17 example, if price goes up from 16 to 24
 18 cents, you're dealing with like 1,000
 19 gigawatt hour reduction in usage.
 20 Now, one of the struggles I have with
 21 the elasticity, my own personal opinion, is
 22 the uncertainty with regard to where the
 23 price is going and how high it's going may
 24 cause – and the fear of it going to 22 cents
 25 could cause people to act earlier than what

Page 36

1 you may see in Undertaking 79. So, it could
 2 start sooner.
 3 (9:45 a.m.)
 4 BROWNE, Q.C.:
 5 Q. What's your plan then? Like if people start
 6 to leave the system, you need the revenue.
 7 What's your plan then?
 8 MR. FAGAN:
 9 A. So, we've been looking at that from – not so
 10 much even from elasticity, but from a
 11 pricing perspective, okay.
 12 BROWNE, Q.C.:
 13 Q. Yes.
 14 MR. FAGAN:
 15 A. So, Muskrat Falls is a very valuable
 16 resource. The key is to use it wisely,
 17 okay. Currently we've got I think it's – it
 18 gives you slightly more capacity than needed
 19 to replace Holyrood on the island, but it
 20 gives you lots of available energy. So,
 21 I've had some research done looking at
 22 economic development rates, looking at load
 23 retention rates for Industrial Customers,
 24 looking at how you deal with rates for
 25 electric vehicles, things you need to be

Page 37

1 considering.
 2 We've presented our report to the Board
 3 with regard to how we should change our rate
 4 structure so that – for Newfoundland Power
 5 so that they see the marginal price. So, if
 6 load changes, they don't see the 18 cent
 7 change, but if the marginal change may only
 8 be six cents. So, if their load goes up or
 9 down, you give them the right price signal
 10 related to the marginal cost, not to this
 11 historical average cost. And then customers
 12 – customers should be making their decision
 13 based on the marginal price that they see,
 14 not on the average price that they see.
 15 So, you need to be – there really needs
 16 to be a rate design review looked at so that
 17 customers – so we can make sure that
 18 customers are not leaving for the wrong
 19 reasons as such. That you can still give
 20 them – get your cost recovery but give them
 21 a proper marginal price signal, so they can
 22 still make efficient decisions. So, you can
 23 do that a number of different ways, but -
 24 BROWNE, Q.C.:
 25 Q. What do you mean? They would pay less?

Page 38

1 Would ratepayers pay less under that
 2 scenario?
 3 MR. FAGAN:
 4 A. Well, historically I think we may be way
 5 back when I think it was Bay d'Espoir came
 6 on; that there was excess energy and so
 7 declining block rates were put in service so
 8 that customers would use electricity. Then
 9 you'd get your cost – higher cost recovery
 10 from your more expensive first block then on
 11 the – but then you've got a declining block,
 12 so that it's better reflecting what the
 13 marginal costs are. So, they were actually
 14 trying to attract people to keep them on
 15 electric heat or put them on electric heat
 16 at the time because there wasn't much
 17 electric heat at the time. So, they
 18 actually attracted electric heat; not
 19 necessarily, looking back, whether that was
 20 the right thing to do or not.
 21 But there's things you can do with
 22 regard to rate design, whether time-of-use
 23 rates. On our system now, when we talk
 24 about customers cutting back on energy, but
 25

Page 39

1 may not be cutting back on capacity. We may
 2 need some form of rates which are what we
 3 call critical peak pricing where at the
 4 times of high demand, there's a very high
 5 price for the peak hours but – and if a
 6 customer wants that type of rate to get a
 7 lower rate for the other hours of the year.
 8 So, there -
 9 BROWNE, Q.C.:
 10 Q. So, time-of-day rates, time-of-use rates?
 11 MR. FAGAN:
 12 A. It's a form of time-of-day, yes, day rates,
 13 yes.
 14 BROWNE, Q.C.:
 15 Q. Yes. That's been advocated for some time,
 16 but resisted by Hydro and indeed by
 17 Newfoundland Power.
 18 MR. FAGAN:
 19 A. Well, the reason it's been, I guess,
 20 conceptually whether – I don't know if it's
 21 been resisted or I don't think it could be
 22 really justified. While we were isolated
 23 system, Holyrood fuel was on the margin year
 24 round from an energy perspective so that you
 25 didn't have a lot of marginal cost

Page 40

1 variability in your – throughout the year.
 2 You had difference between winter and summer
 3 and you had some – you had primarily
 4 marginal capacity costs in the winter. So,
 5 you didn't have a marginal energy cost
 6 difference between winter and summer.
 7 But looking forward, you're going to
 8 have – you'll have marginal energy cost
 9 differences as well as capacity cost. So,
 10 time-of-day rates may make a lot more sense.
 11 So, looking at the rates going forward is an
 12 important part of it, but that doesn't –
 13 that will take some time. The starting
 14 point is we were looking at with regard to –
 15 and in our fall filing for the Cost of
 16 Service methodology was also included rate
 17 design filing for Newfoundland Power and
 18 Island Industrial Customers, so they could
 19 still have a good marginal price signal.
 20 So, you can get cost recovery but give them
 21 a marginal price signal so if customer load
 22 goes up or down, the revenues decrease by
 23 the marginal costs and so, because if their
 24 revenues – if their load goes down and based
 25 on marginal costs, then the marginal costs,

Page 41

1 based on the market value, so you sell that
 2 excess energy. So, you get a balancing
 3 between the rates and what the market is.
 4 So, there's things you can do, although -
 5 BROWNE, Q.C.:
 6 Q. Well, if you're going to do something,
 7 shouldn't there be an announcement of some
 8 sort? People are out there now making
 9 decisions as to what they're going to do in
 10 reference to their electricity bills and
 11 looking at variations. There's a game
 12 afoot, if I can put it that way.
 13 MR. FAGAN:
 14 A. I agree we're behind, okay. We did start
 15 though and we did file a marginal cost study
 16 back in 2016 and we filed a report on rate
 17 design review for Newfoundland Power and
 18 Island Industrial Customers in 2016. Our
 19 hearing got delayed starting for a few
 20 months, but also, now the hearing has been
 21 delayed completing for a number of months.
 22 So, we are trying to move it forward, but
 23 regulatory processes take time.
 24 BROWNE, Q.C.:
 25 Q. And in reference to these variable rates,

Page 42

1 are you aware that in Quebec right now,
 2 there's a – Hydro Quebec has a proposal to
 3 the Energy Board, the Regie, for a variable
 4 rate but a higher price for electricity
 5 during peak periods and a lower price when
 6 demand is lower, even though in Quebec
 7 itself, they're paying I think it's seven
 8 cents for a kilowatt. Are you aware that
 9 that's what they're doing at this stage?
 10 MR. FAGAN:
 11 A. Yes. Well, there's a number of utilities
 12 that have got time-of-use rates, but
 13 primarily because their marginal costs vary
 14 by time of use. On the system, while we
 15 were isolated, we didn't have that
 16 differential. So, the plan is to have – to
 17 look at that much closer now going forward.
 18 Hydro will be – as a supplier for
 19 Newfoundland Power will try – will give them
 20 – try and give them a proper marginal price
 21 signal, but then it will take – the parties
 22 will have to work together and determine
 23 what's proper for the retail customers and
 24 Newfoundland Power play a major role in
 25 that.

Page 43

1 BROWNE, Q.C.:
 2 Q. Can you go to CA-NLH-031 please? Now, we
 3 asked this very thing and the question “if
 4 improved conservation reduced customer
 5 demand by five percent in 2021, what would
 6 be the impact on the expected customer rate
 7 in 2021 of 26.32 cents?”
 8 And the answer is not what you're
 9 giving us here. If we go to line 12, “a
 10 five percent reduction in customer energy
 11 consumption in 2021 would reduce retail
 12 energy billings from customers by
 13 approximately five percent. The energy not
 14 used by customers could be sold in external
 15 markets to recover approximately 25 percent
 16 of the lost revenue. Overall, Hydro
 17 estimates a reduction of five percent of
 18 energy usage by customers would increase
 19 customer rates on average by approximately
 20 four percent. Applying the same approach,
 21 Hydro estimates a reduction of ten percent
 22 of energy usage by customers would increase
 23 customer rates on average by approximately
 24 eight percent.”
 25 So, as customers jump off the system,

Page 44

1 you're looking to the remaining customers to
 2 make up the deficit. Isn't that the so-
 3 called death spiral?
 4 MR. FAGAN:
 5 A. That's assuming the existing rate design
 6 that the customer – that the marginal energy
 7 price that the customer would see would be
 8 say the 18 cents, for example. If you – if
 9 the rate design changed, then that wouldn't
 10 necessarily be the case. But under the
 11 current rate structure that math would work,
 12 yes.
 13 BROWNE, Q.C.:
 14 Q. And then we asked in CA-NLH-033, in
 15 reference to fuel costing, and the last
 16 sentence there in reference “as such, Hydro
 17 has not studied the potential impact on
 18 customer demand?” and that's there for
 19 everyone to read.
 20 But, it just goes to show, there's
 21 confused messages coming out of Hydro. In
 22 the one instance, you're telling people if
 23 they go to electric space heating, you're
 24 going to punish your neighbour because we're
 25 going to put up electricity for your

Page 45

1 neighbour who has not seen fit to do that.
 2 And on the other hand, you're telling us
 3 there could be rate design which may give a
 4 two-tiered system whereby people can get
 5 charged more for more consumption or people
 6 could have a basic lifeline rate of 700
 7 kilowatts or time-of-use rates. There's all
 8 kinds of variations out there. But, no one
 9 knows what you're going to do. There is no
 10 plan and people are out there on the move
 11 now.
 12 MR. FAGAN:
 13 A. Well, I agree that the fear of customers
 14 associated with what's going to happen with
 15 rates is causing activity now because of
 16 uncertainty in the plan with regard to where
 17 rates will be. I think we're moving as
 18 quickly as we can with regard to Hydro with
 19 respect to going through the regulatory
 20 process to try and implement rates for
 21 Newfoundland Power, Island Industrials.
 22 So, I agree – I take your point with
 23 respect to no plan on where rates are going
 24 and customers' uncertainty on where rates
 25

Page 46

1 are going is prompting activity from
 2 customers, early adopters to other
 3 technologies, I think would be fair, which
 4 is a challenge because they're basing it on
 5 not having full information. I think that's
 6 a concern. I agree with that.
 7 But, we are doing – we are actively
 8 doing things. I mentioned the work on
 9 Newfoundland Power's rate design. We've
 10 done – we've had a report prepared looking
 11 at economic development rates and load
 12 retention rates. We had a report done on
 13 Labrador, looking at what we should do with
 14 Labrador rates, to try and give customers a
 15 better rate signal in Labrador over the long
 16 term. So, we -
 17 BROWNE, Q.C.:
 18 Q. But wouldn't the correct signal – excuse me.
 19 Wouldn't the correct signal right now be to
 20 tell customers there's going to be rate
 21 stability, or you could end up paying lower
 22 rates for a while until we can figure this
 23 out because there are options whereby
 24 customers can pay lower rates now?
 25 MR. FAGAN:

Page 47

1 A. Well, I think that's a Government policy
 2 decision on how they're going to deal with
 3 it.
 4 BROWNE, Q.C.:
 5 Q. Well, you're the utility. Why does it fall
 6 to government to – does government – I asked
 7 you something quite specific.
 8 MR. FAGAN:
 9 A. Well, because Government's put legislation
 10 out that requires Hydro to recover the full
 11 cost for Muskrat Falls from its customers.
 12 So, unless Government acts and changes that,
 13 then Hydro has to do what legislation
 14 requires, the Government direction.
 15 BROWNE, Q.C.:
 16 Q. Yes, but you see, Muskrat Falls is not
 17 commissioned yet. We're talking about 2020.
 18 We do have some time here. The only problem
 19 that we have right here is that Hydro is
 20 jumping the gun by trying to get these
 21 additional costs for the Project which is
 22 not commissioned. If Hydro took a different
 23 approach and told people "look, we're going
 24 to go through a period of rate stability
 25 until we can figure these things out" and so

Page 48

1 no one is hard done by, wouldn't that be the
 2 better approach?
 3 (10:00 a.m.)
 4 MR. FAGAN:
 5 A. Well now, in our settlement agreement, the
 6 proposed increase for retail customers is
 7 1.2 percent. So, we deviated from the
 8 proposed off-island purchases deferral
 9 account. So, I honestly believe that if
 10 customers are going to get the savings from
 11 off-island purchases that the customer
 12 should pay the cost of the assets used to
 13 get – to achieve the off-island purchases.
 14 That's how we get the 130 million dollars.
 15 So, I don't think it would be as fair to
 16 give customers more than those savings and
 17 take the cost of the 50 million and pump it
 18 off for future customers to pay.
 19 BROWNE, Q.C.:
 20 Q. Because we've had an elasticity study done
 21 by Dr. Feehan, an economist at Memorial
 22 University has written extensively on the
 23 province's electricity and electricity
 24 systems and Churchill Falls and beyond and
 25 that's been entered into evidence. And if

<p style="text-align: right;">Page 49</p> <p>1 we can go to Dr. Feehan’s report, The Long- 2 Run Price Elasticity of Demand for 3 Electricity and the Feasibility of Raising 4 Electricity Rates to Finance Muskrat Falls, 5 that’s the title. And I just want to take 6 you, because I’m sure you’ve read all this, 7 to Table 4 on page seven. 8 MR. FAGAN: 9 A. Table 3? 10 BROWNE, Q.C.: 11 Q. Sorry, Table 4 on page seven. 12 MR. FAGAN: 13 A. I think - 14 BROWNE, Q.C.: 15 Q. You said Table 3, but I’m saying Table 4. 16 MR. FAGAN: 17 A. But there is no Table 4 on page seven 18 though. 19 BROWNE, Q.C.: 20 Q. On my page seven there is. 21 MR. FAGAN: 22 A. Table 4 is page nine. 23 MS. MASSIE: 24 Q. Table 3, page seven or Table 4, page nine. 25 BROWNE, Q.C.:</p>	<p style="text-align: right;">Page 51</p> <p>1 1200; heat pumps geothermal, that’s cheaper 2 again, 1000; and oil with an efficiency of 3 70 percent, 3400; and oil with a new oil 4 furnace at 85 percent efficiency, it’s 5 actually cheaper right now than electricity. 6 And then, he goes to propane and woodstove 7 and other matters. And then, he takes it up 8 further. If the price were to go to 17 9 cents, electric baseboard heating is getting 10 priced out of the market. If you go down 11 and do all of the comparators again, and at 12 23 cents, which some of your documents tell 13 us we’re going, you’re out of the market 14 entirely. Now, customers have an ability 15 despite what you’re doing, or Newfoundland 16 Power might want to do or the utilities, to 17 manage their own finances. Ultimately, 18 customers have a right to manage their own 19 finances, and someone looking at these 20 figures, would probably take appropriate 21 action, wouldn’t you agree? 22 MR. FAGAN: 23 A. Well, I haven’t tested all of his math. I 24 know based on some math I had looked at, 25</p>
<p style="text-align: right;">Page 50</p> <p>1 Q. Table 4, yeah, that’s it right here. 2 MR. FAGAN: 3 A. Okay. 4 BROWNE, Q.C.: 5 Q. Okay, page nine, sorry. 6 MR. FAGAN: 7 A. Okay. 8 BROWNE, Q.C.: 9 Q. Table 4. And it’s a comparison of annual 10 spacing heating fuel costs, 2000 square foot 11 detached house built after 1990 in St. 12 John’s. So, 2000 square feet, you’re 13 talking probably a bungalow there. Would 14 you not say, Mr. Fagan? 15 MR. FAGAN: 16 A. That’s fair. 17 BROWNE, Q.C.: 18 Q. And it’s interesting because Dr. Feehan 19 takes the electricity price at 11.4 cents 20 which is what--the price right now that 21 people are paying in their July bill. And 22 in that he uses electric baseboard heat, and 23 based on the usage he comes up with a figure 24 of \$3,000 for electric baseboard heat; heat 25 pumps will only cost 1600; mini-splits,</p>	<p style="text-align: right;">Page 52</p> <p>1 that electric an oil heat are fairly 2 comparable currently. So, I don’t think 3 that changes anything with respect to the 4 conclusions that he’s brought, that you’ve 5 come to, but certainly, material increases 6 in electricity price without comparable 7 changes in the price of oil for example, so— 8 because if that goes up, that would change 9 the numbers as well, would put electricity 10 at a material disadvantage from being 11 competitive and would certainly—could 12 influence customers to make major changes in 13 their usage patterns. I agree. 14 BROWNE, Q.C.: 15 Q. And by the way, you have—had an opportunity 16 to test Dr. Feehan’s evidence, but no one 17 here wanted Dr. Feehan to come and appear to 18 answer any questions. So, I took it at 19 that, that his evidence is uncontroverted, 20 but be that as it may, Table 5, can you go 21 there for a moment, please? 22 MR. FAGAN: 23 A. I’m not questioning his numbers. The—but I 24 haven’t checked all his numbers is all I’m 25</p>

Page 53	<p>1 saying.</p> <p>2 BROWNE, Q.C.:</p> <p>3 Q. Sure.</p> <p>4 MR. FAGAN:</p> <p>5 A. Table 5?</p> <p>6 BROWNE, Q.C.:</p> <p>7 Q. But there's been an opportunity. He could</p> <p>8 come forward and counsel can ask questions.</p> <p>9 They've decided not to do that for their own</p> <p>10 reasons. So, Dr. Feehan's evidence stands I</p> <p>11 would think. Table 5. It's a comparison of</p> <p>12 annual hot-water heating fuel costs based on</p> <p>13 240 litres a day, and he shows us what an</p> <p>14 electric hot-water heater, an old one, at 85</p> <p>15 percent would cost, at \$701 at 11.4 cents.</p> <p>16 And then, he goes to a new one, 663. Oil</p> <p>17 standalone, it's higher at that rate.</p> <p>18 Propane standalone is higher. Propane</p> <p>19 standalone heater high at 93 percent</p> <p>20 efficiency, it outstrips the more—the most</p> <p>21 efficient hot-water heater. Then, when it</p> <p>22 goes to 17 cents, if the price of</p> <p>23 electricity goes to 17 cents, you see his</p> <p>24 comparators there. And at 23 cents, there's</p> <p>25</p>	Page 55	<p>1 we proposed, if I recall, 6.6 percent in '18</p> <p>2 and 6.4 percent in '19. We don't—the RSP</p> <p>3 effect, you could forecast it when—ahead of</p> <p>4 the game. What could happen the next year</p> <p>5 could be materially different. So, it's—and</p> <p>6 it's not part of the General Rate</p> <p>7 Application, but it wasn't reflected in</p> <p>8 there. So, the—so that's what we started</p> <p>9 out with. The forecast of Mr. Stratton</p> <p>10 that—he's our forecaster, reflects—well,</p> <p>11 he's using Newfoundland Power's forecast</p> <p>12 because it's—we're dealing with short-term</p> <p>13 effects on customers. And so, I guess his</p> <p>14 own price of elasticity is built into the</p> <p>15 models and it's also reflected in</p> <p>16 Newfoundland Power's model who also uses</p> <p>17 elasticity in their forecasting. So, there</p> <p>18 is some elasticity assumptions reflected in</p> <p>19 the forecasts that into the General Rate</p> <p>20 Application, but like you say, on the short-</p> <p>21 term basis the impacts are often not really</p> <p>22 large. It's over the long term if rates go</p> <p>23 up a lot, you could expect elasticity to</p> <p>24 play a larger role and it's more of a</p> <p>25</p>
Page 54	<p>1 not too many around that are going to have</p> <p>2 electric hot-water heaters I would offer.</p> <p>3 So, I guess my question is, how could you</p> <p>4 come forward with an application suggesting</p> <p>5 initially, or an initial application</p> <p>6 suggested 22.7 percent increase, 23 percent</p> <p>7 roughly--and then you varied it again, and I</p> <p>8 think it was down to 17 or 18 percent. Now,</p> <p>9 it's varied again, but how could come</p> <p>10 forward with anything of increases in these</p> <p>11 demands without having conducted a proper</p> <p>12 elasticity study?</p> <p>13 MR. FAGAN:</p> <p>14 A. The numbers that—well, I don't think I</p> <p>15 accept all of your numbers with respect to</p> <p>16 the proposed increases.</p> <p>17 BROWNE, Q.C.:</p> <p>18 Q. Well, it's all a matter of record, so we</p> <p>19 don't have to argue about that. It's all</p> <p>20 there.</p> <p>21 MR. FAGAN:</p> <p>22 A. No, I have to, but I don't know if I can</p> <p>23 find that record. The—with regard to the</p> <p>24 elasticity, so in our original application</p> <p>25</p>	Page 56	<p>1 concern with respect to moving towards</p> <p>2 recovery of the Muskrat Falls costs I think</p> <p>3 than it would be at the current Rate</p> <p>4 Application, because I mean, if we went back</p> <p>5 to what we discussed yesterday, the current—</p> <p>6 the rate coming out of this year going to be</p> <p>7 12.4 cents, sorry, yeah, 12.4 cents, rates</p> <p>8 in 2014 were around 12 cents. So, rates go</p> <p>9 up and down and RSP effects cause that and</p> <p>10 fuel price variability. So, rates have been</p> <p>11 relatively stable in spite of over a long-</p> <p>12 term average, in spite of variability year</p> <p>13 over year. So, I think the concerns with</p> <p>14 the elasticity for me are more long term,</p> <p>15 related to the increases in Muskrat Falls</p> <p>16 and not the results of this hearing.</p> <p>17 BROWNE, Q.C.:</p> <p>18 Q. And because Dr. Feehan concludes on page</p> <p>19 10C--in B he deals with Muskrat Falls energy</p> <p>20 and in C he deals with rate design. It's</p> <p>21 right at the conclusion of the report for—</p> <p>22 so, I've got it as page 10, rate design.</p> <p>23 Okay, "Concluding Remarks." Yes, right</p> <p>24 before "Concluding Remarks." "Rate Design,"</p> <p>25</p>

Page 57

1 you'll see it there. It's on page 13 here.
 2 "Rate Design." It says, "The
 3 counterproductive impacts of raising
 4 electricity rates following completion of
 5 Muskrat Falls are a signal that simply
 6 raising the price per kilowatt is an
 7 incorrect approach to rate design." Do you
 8 agree with that?
 9 MR. FAGAN:
 10 A. Actually, what's what we just discussed,
 11 that you've got to look closer at what the
 12 marginal costs are, and you can't just
 13 automatically drive up the single—assume a
 14 single energy price for consumers and
 15 increase it, you know, 50 percent. You've
 16 got to look at—try and give customers an
 17 efficient price signal. So, try and build
 18 some cost recovery in, but on the marginal
 19 price you need to somehow reflect what makes
 20 sense from an economic efficiency
 21 perspective. So, I actually –
 22 BROWNE, Q.C.:
 23 Q. But that's not what your application did.
 24 Your application said, "We got to get to 18
 25

Page 58

1 cents come hook or"—"by hook or by crook as
 2 soon as possible."
 3 MR. FAGAN:
 4 A. But we've –
 5 BROWNE, Q.C.:
 6 Q. And then, smoothing out rates. It was all
 7 about smoothing out rates as if no one was
 8 going to notice. So –
 9 MR. FAGAN:
 10 A. I don't agree. Number one, this application
 11 is not so much about what—and it never
 12 started out going towards 18 cents. It's
 13 started out going—we had the uncertainty in
 14 what our supply costs were going to be, and
 15 I think we were right if we look back. If
 16 we look back when we were preparing our rate
 17 case, we were uncertain about when the
 18 Labrador Island Link was going to be in
 19 service. It was talked about being in
 20 service in April at the time when I was
 21 preparing evidence. And now, we're talking
 22 about October. So, if we had filed our case
 23 at that time, reflecting all these savings
 24 with the Labrador Island Link, we would have
 25

Page 59

1 had a material decrease being proposed at
 2 that time. So, we were hesitant to move
 3 down that road without having more
 4 certainty. So –
 5 BROWNE, Q.C.:
 6 Q. What option is that of yours to tell this
 7 Board where the rates should be set?
 8 Shouldn't rates be set based on various
 9 principles and cost of service? You're
 10 coming here before this Board saying,
 11 "That's not where we wanted to go." Surely,
 12 that is not your job. That's the job of the
 13 Board to make that determination.
 14 MR. FAGAN:
 15 A. It's our job to provide our best information
 16 to the Board so they make the decision based
 17 on regulatory principles. And I actually
 18 believe our original application, which I
 19 guess we've negotiated away from it, was
 20 actually consistent with regulatory
 21 principles, that it was putting the savings
 22 resulting from the use of the Muskrat Falls
 23 assets that will be accruing over the next
 24 two years to be set aside for future
 25

Page 60

1 customers that will be paying for the
 2 assets. So, from a regulatory principle
 3 perspective, I actually think what we
 4 presented was correct. The—it didn't get
 5 customer acceptance and delaying moving
 6 forward and implementing rates, then
 7 resulted in increases being materially too
 8 high to implement that for 2018 anyway. So,
 9 I guess it's--the debate—it's not really
 10 worth having a debate, but what we did
 11 present to the Board was based on regulatory
 12 principles and I think—and we didn't know
 13 what our forecast costs were going to be in
 14 2018 and 2019 to come –
 15 BROWNE, Q.C.:
 16 Q. And do you know now?
 17 MR. FAGAN:
 18 A. There's still a lot of uncertainty, and that
 19 actually is a concern with giving the excess
 20 revenues towards rates, so--going forward at
 21 this stage. So, it's a very difficult time
 22 for preparing a rate application when your
 23 largest cost, which is your supply cost,
 24 could vary from a hundred million dollars
 25

Page 61

1 or—one way or another. So, I think what we
 2 presented was what we believed was the right
 3 thing to do and obviously, we didn't get the
 4 full agreement on that, but I don't think
 5 there was anything wrong with what we did.
 6 I think in principle what we did was
 7 correct.
 8 (10:15 a.m.)
 9 BROWNE, Q.C.:
 10 Q. It's all there for everyone to read. So,
 11 it's no sense to go and doing the back and
 12 forth on that. Line 35, Dr. Feehan, who did
 13 read all the applications, says, "Setting
 14 prices in that way is not related to the
 15 core economic principle of marginal cost
 16 pricing and has demonstrated therein it
 17 fails to take into account of consumer
 18 response to higher prices." Then, at line
 19 37, "The higher rates for island customers
 20 would push them away from consuming
 21 electricity even though the benefits to
 22 island consumers from using that electricity
 23 may well exceed the export revenue it
 24 earns." Do you agree with that last
 25

Page 62

1 sentence?
 2 MR. FAGAN:
 3 A. I actually have a couple of issues with what
 4 Dr. Feehan said in his evidence, but –
 5 BROWNE, Q.C.:
 6 Q. Did you tell your counsel there were issues
 7 with Dr. Feehan's evidence?
 8 MR. FAGAN:
 9 A. But what I was going to say is that there
 10 were not with that paragraph. I actually
 11 agree with his statements there. My primary
 12 issues with Dr. Feehan's evidence is that he
 13 ignored or—and it's more a technical issue
 14 with that, not looking at capacity separate
 15 from energy. Okay. And, but I agree with
 16 him that you've got to look at marginal cost
 17 pricing and rate design as well. So, that
 18 was my only two points with Dr. Feehan's
 19 evidence, there's one about there was an
 20 issue with capacity and energy are not
 21 necessarily the same product for elasticity
 22 effects. We've got—because in Newfoundland
 23 you've got a lot of people with dual fuel.
 24 When I was with Newfoundland Power, it was—
 25

Page 63

1 we were into estimating. It used to be bi-
 2 monthly estimating. You did—I think Mr.
 3 Browne, you may recall bi-monthly estimating
 4 back in the mid-nineties. The—so, we'd
 5 estimate customers every second month, and
 6 so I created this algorithm for doing
 7 estimates. It used to do well, except for
 8 people with dual fuel because you didn't
 9 know when they were going to switch back and
 10 forth. And so, when you get the customer
 11 concerns with where the prices are going,
 12 people move--those that are—have maintained
 13 the dual systems, quickly move over. So,
 14 they're the early adapters to the alternate
 15 service. And especially in rural areas
 16 that's common. So, but on those peak days
 17 for those customers and with the elderly
 18 population and aging population of
 19 Newfoundland, you're less likely to go out
 20 and bring in the wood if you get two or
 21 three real cold days in a row. So, you can
 22 still get the—despite a peak from those
 23 customers even though they're dual fuel, and
 24 you're losing your energy. So, the products
 25

Page 64

1 I viewed are different. So, that was one of
 2 my—he didn't go into the detail and I think
 3 that was—he was taking a higher-level
 4 approach to his evidence. So, I really
 5 didn't have an issue with that, but it was
 6 just that matter I thought was worth
 7 mentioning, but -
 8 BROWNE, Q.C.:
 9 Q. Okay. Thank you, Mr. Fagan.
 10 MR. FAGAN:
 11 A. Yeah.
 12 BROWNE, Q.C.:
 13 Q. The concluding remarks of Dr. Feehan's
 14 report, Dr. Feehan says, "This report has
 15 presented an assessment of relevant long-run
 16 price elasticities for electricity and fuel
 17 substitution possibilities. Based on that
 18 assessment, it appears that a large increase
 19 e.g. by 50 percent or more in the per
 20 kilowatt price of electricity would be
 21 problematic. Not only would it be a burden
 22 to all island interconnected customer
 23 groups, it would cause a large decline in
 24 electricity consumption by those consumers
 25

Page 65

1 that would impede Nalcor’s evidence to raise
 2 the revenue through hydro rates to pay for
 3 Muskrat Falls. Island consumption could
 4 fall by so much that Muskrat Falls could
 5 become solely an export project. Since
 6 there has been no indication such basing”—
 7 “that such pricing is based on economic
 8 principles, there is no reason to believe
 9 that these outcomes are consistent with
 10 optimal economic use of the province’s
 11 electrical energy.” Do you have any
 12 comments on Dr. Feehan’s conclusions? And
 13 he uses “by 50 percent or more” because of
 14 the 18 cents that was popping up all around
 15 your evidence, everything 18 cents, 18
 16 cents.
 17 MR. FAGAN:
 18 A. Oh, I understand.
 19 BROWNE, Q.C.:
 20 Q. And of course, now we’re at 11 cents. So,
 21 but he does in his evidence also go by—he
 22 starts at 11.4 and shows what will happen
 23 and continues to go up. So, do you have
 24 comments on that?
 25

Page 66

1 MR. FAGAN:
 2 A. On the matter with regard to Muskrat Falls
 3 being solely an export project, Muskrat
 4 Falls is need for capacity, not just energy.
 5 So, if capacity requirements—so, if we
 6 assume Dr. Feehan is right with regard to
 7 customer energy reduction, I don’t think you
 8 can make the same assumption with regard to
 9 capacity reduction. So, Muskrat Falls would
 10 obviously be critical for providing capacity
 11 to the system. The—with regard to Nalcor’s
 12 efforts to raise revenue, I think it would
 13 depend on the market value of exports. So,
 14 if markets improved and customers conserved,
 15 the impact may not be as extreme, the
 16 benefit—if the government was providing the
 17 benefits back to customers. So, there’s a
 18 lot of things that could happen that could
 19 change it. But I think it also—he correctly
 20 raises the matter that you’ve got to look at
 21 marginal cost pricing for customers and
 22 that’s an important factor. I think we’ve
 23 got to try and balance it though. As a
 24 utility, we’ve got the obligation and we’ve
 25

Page 67

1 been directed to recover the costs. We’re
 2 not sure yet what the target rate is for
 3 customers, and when they talk a target rate,
 4 I think they’re talking an average unit cost
 5 rate. It hasn’t—people haven’t got into
 6 that detail. So, the assumption that we may
 7 not implement some other forms of rates to
 8 give customers better marginal cost signals,
 9 hasn’t really been thought about, that
 10 perspective. Everybody thinks the average
 11 is 12. So, you’re going to go to an average
 12 18, but I think it’s highlighting—his report
 13 highlights the importance of looking at ways
 14 that—to deal with the problem, and marginal
 15 cost pricing is an important one to
 16 consider. So, I—from that perspective, I
 17 agree with a lot of his points, it’s just
 18 some –
 19 BROWNE, Q.C.:
 20 Q. Thank you, Mr. Fagan.
 21 MR. FAGAN:
 22 A. Okay.
 23 BROWNE, Q.C.:
 24 Q. And thank you for your evidence.
 25

Page 68

1 MR. FAGAN:
 2 A. Okay, thanks.
 3 BROWNE, Q.C.:
 4 Q. Thank you.
 5 CHAIR:
 6 Q. Mr. Browne, thank you. Thank you, Mr.
 7 Fagan. Mr. Coxworthy?
 8 MR. COXWORTHY:
 9 Q. Thank you, Madam Chair. Good morning, Mr.
 10 Fagan.
 11 MR. FAGAN:
 12 A. Good morning, Mr. Coxworthy.
 13 MR. COXWORTHY:
 14 Q. If we could turn to CAN—I’m sorry, CA-NLH-
 15 057? Page 2, please. And I think this
 16 table has been brought to your attention
 17 previously, Mr. Fagan, but I just wanted to
 18 review it and understand it. As I
 19 understand, that’s the total amount
 20 available as excess recapture, and not
 21 necessarily deliverable to the island, but
 22 available on a monthly basis for the period
 23 2018 to 2020?
 24 MR. FAGAN:
 25

Page 69

1 A. That's my understanding, but could you move
 2 to page 1 so I can just read the
 3 introduction, please, first to make sure I'm
 4 interpreting correctly?
 5 MR. COXWORTHY:
 6 Q. Yes, I think line 11 and line 12.
 7 MR. FAGAN:
 8 A. That's okay. I agree with your statement.
 9 MR. COXWORTHY:
 10 Q. Thank you. If we could go back then to page
 11 2? So, in other words, just to use an
 12 example, in December 2018, December 2019,
 13 and December 2010, Hydro is—has been advised
 14 I suppose that that's who much recapture
 15 energy is available?
 16 MR. FAGAN:
 17 A. Yes, based on the forecast that was in place
 18 at the time that this was prepared, yeah.
 19 MR. COXWORTHY:
 20 Q. And that's at a—is that a Hydro forecast or
 21 is that Nalcor or a Nalcor entity that make
 22 that forecast and provides you with that
 23 information?
 24 MR. FAGAN:
 25

Page 70

1 A. I think it's probably an output of a Hydro
 2 forecast because we look at Hydro's native
 3 load requirements on the Labrador
 4 Interconnected System, and that would be the
 5 excess.
 6 MR. COXWORTHY:
 7 Q. And how much can be brought to the island of
 8 course is dependant on what can be brought
 9 over the LIL?
 10 MR. FAGAN:
 11 A. Yes.
 12 MR. COXWORTHY:
 13 Q. And what requirements there are in Labrador
 14 is the other limiting factor.
 15 MR. FAGAN:
 16 A. Yeah, and I think there's technical issues
 17 as well because I think we discussed
 18 yesterday whether you being 110 versus 225,
 19 so it depends where it's, if there was
 20 additional generation supporting it, from a
 21 firm perspective you can bring more.
 22 MR. COXWORTHY:
 23 Q. And I had understood from your evidence and
 24 maybe I misunderstood that these figures on
 25

Page 71

1 a monthly basis weren't necessarily fixed,
 2 and I understood that in the context of 2018
 3 that even though those numbers, 115, 123,
 4 105, you know, would only add up to a
 5 certain amount, that it would be possible
 6 maybe to shift some unused power from
 7 earlier months, or is that, did I
 8 misunderstand that in the context of this
 9 particular –
 10 MR. FAGAN:
 11 A. I didn't mean to imply that.
 12 MR. COXWORTHY:
 13 Q. Okay, I may have been thinking about not
 14 what's available, but what's deliverable to
 15 the island over the LIL once the LIL is in
 16 service, whether that's October 1st or
 17 otherwise.
 18 MR. FAGAN:
 19 A. My only point, what I was discussing with
 20 Mr. O'Brien yesterday, that some power is
 21 coming over now during the testing period.
 22 MR. COXWORTHY:
 23 Q. Some recapture power.
 24 MR. FAGAN:
 25 A. Recapture power, yes, and so that would be

Page 72

1 providing savings now. You're going to get
 2 much more material increase in savings once
 3 the LIL is considered in service, and you've
 4 got this additional agreement for supporting
 5 power coming in from Labrador.
 6 MR. COXWORTHY:
 7 Q. So to go back to my original or the original
 8 tact that was taken here, then in December,
 9 to use December as an example, December
 10 2018, December 2019, December 2020, the
 11 maximum number in terms of available
 12 recapture in that month for those three
 13 years is going to be 105, there's no way of
 14 increasing it.
 15 MR. FAGAN:
 16 A. That's my understanding, yes.
 17 MR. COXWORTHY:
 18 Q. Thank you. So if we can move down a little
 19 bit on page 2 to line 5 and 6, we are
 20 referred by this RFI response "for more
 21 detail on projected volumes for recapture
 22 energy for the island, please refer to
 23 Hydro's response, NP-NLH-115." So if we
 24 could look to revision 1 of NP-NLH-115.
 25 Sorry, the attachment, page 1 of 1, thank

Page 73

1 you. And I realize these figures have
 2 changed somewhat in the supplementary
 3 evidence that's been recently filed, so I
 4 acknowledge that, but I just want to look at
 5 these numbers in the context of what was
 6 previously filed and then bring it forward.
 7 So we see the top line there, the CF(L)Co
 8 Recapture, 2018, 453; 2019, 1055; 2021, 33
 9 and correct me if I'm wrong, it goes down in
 10 2020 because of the need to start taking
 11 Muskrat Falls power, not because there's
 12 less recapture available to cover the
 13 island.
 14 MR. FAGAN:
 15 A. Yes, and the Muskrat Falls pre-commissioning
 16 would be at zero cost, so it would be
 17 cheaper.
 18 MR. COXWORTHY:
 19 Q. Sure, it makes sense to bring it from a cost
 20 point of view, thank you. So looking at
 21 2018 and 2019, those are, I'll call them
 22 gross numbers because there's losses
 23 associated with those, if you look at line
 24 D, and the actual amount that's deliverable
 25 to the island is shown at line A.

Page 74

1 MR. FAGAN:
 2 A. Yes, okay.
 3 MR. COXWORTHY:
 4 Q. 388 and 919, and those are not the same
 5 figures, correct me if I'm wrong, that we're
 6 seeing in the supplementary evidence as
 7 deliverable as CF(L)Co recapture, and of
 8 course, that's as shown in the supplementary
 9 evidence, Table 1, if you want to turn to
 10 that, page 2.
 11 MR. FAGAN:
 12 A. Yes, I think on the supplementary evidence,
 13 I believe there's a footnote saying the
 14 number delivered at the island.
 15 MR. COXWORTHY:
 16 Q. Yes, I think you're right, the numbers that
 17 are shown in Table 1, Table 2, they talk
 18 about being as deliverable to Bottom Brook
 19 and to Soldiers Pond, so I was going to ask
 20 you that that takes into account the same
 21 losses or the appropriate losses, I think,
 22 with those numbers.
 23 MR. FAGAN:
 24 A. It should, yes.
 25 MR. COXWORTHY:

Page 75

1 Q. But what I wanted to do was compare the
 2 numbers that are shown for recapture in CA,
 3 I'm sorry, NP-NLH-115, which we just saw,
 4 which are 399 and 919 for 2018 and 2019, and
 5 those are lower figures than what's shown in
 6 Table 1, page 2 of the supplementary
 7 evidence that was filed August 3rd.
 8 MR. FAGAN:
 9 A. That's correct.
 10 MR. COXWORTHY:
 11 Q. Okay, and what's your understanding, for
 12 instance in 2018 why that number is higher?
 13 Where is the extra recapture energy coming
 14 from?
 15 MR. FAGAN:
 16 A. 2019?
 17 MR. COXWORTHY:
 18 Q. For 2018.
 19 MR. FAGAN:
 20 A. Oh, 2018.
 21 MR. COXWORTHY:
 22 Q. And despite the fact that we're only going
 23 to be able to start bringing it on in the
 24 last three months at best of 2018.
 25 MR. FAGAN:

Page 76

1 A. Well it's the cumulative effect over, I
 2 think—I'm not really close to it, but I
 3 think it's the cumulative effect over
 4 October, November, December because you
 5 could bring in 225 megawatts in those months
 6 versus 110 megawatts in the original
 7 evidence that was filed.
 8 MR. COXWORTHY:
 9 Q. But previously it was thought that there was
 10 going to be the ability, I think when NP-
 11 NLH-115 was filed, perhaps there was even
 12 thinking that it was going to be available
 13 April 1st.
 14 MR. FAGAN:
 15 A. No.
 16 MR. COXWORTHY?
 17 Q. No? July 1st?
 18 MR. FAGAN:
 19 A. Yes, July 1st.
 20 MR. COXWORTHY:
 21 Q. Yeah, July 1st.
 22 MR. FAGAN:
 23 A. Before we filed our evidence, before we
 24 started preparing our evidence of the
 25 timeline, they were talking April 1st.

Page 77

1 MR. COXWORTHY:
 2 Q. Sure, so there would have been extra time to
 3 bring over power at 225, so I guess I'm not
 4 understanding why it was being projected as
 5 being lower at a time when we have six
 6 months of, I'll call full in-service LIL, as
 7 opposed to three.
 8 MR. FAGAN:
 9 A. Okay, if you went to page 2 of the
 10 supplemental evidence and lines 7 to 9 where
 11 we say "other off-island purchases include
 12 short-term economic purchases, those that
 13 have occurred year to date as well as firm
 14 longer term contracted purchases which are
 15 forecast to commence this fall", that
 16 contract provides the ability for us to
 17 bring more recapture in and that wasn't in
 18 place at the time of the preparation of NP-
 19 115.
 20 (10:30 a.m.)
 21 MR. COXWORTHY:
 22 Q. Thank you, so that's the reason for the
 23 difference. And does that contract allow
 24 for even more than 493 to be brought over in
 25 2018? Could it?

Page 78

1 MR. FAGAN:
 2 A. Not given the timeframe presented is my
 3 understanding, so the timing of the contract
 4 and the timing of LIL would dictate that
 5 number and it would be done in combination
 6 with the available excess.
 7 MR. COXWORTHY:
 8 Q. And the reason I'm asking these questions
 9 and I'm sorry for sort of covering the same
 10 ground, is if you're raised and in fairness
 11 the supplementary evidence has raised the
 12 risk that the off-island purchases or off-
 13 island deliveries, which—and I'll include
 14 recapture broadly within that category,
 15 could possibly be less than what's being
 16 forecast, that's the risk with forecasts is
 17 they, of course, can go either way.
 18 MR. FAGAN:
 19 A. I just believe it may have gotten a little
 20 higher because we're now so much later in
 21 the year with regard to the month of the
 22 timing of LIL.
 23 MR. COXWORTHY:
 24 Q. You got less margin to make up your 2018,
 25 less time to make up any glips in 2018.

Page 79

1 MR. FAGAN:
 2 A. Right.
 3 MR. COXWORTHY:
 4 Q. And that's understandable, but I want to
 5 understand, or have a better understanding
 6 of those risks and what might still be
 7 available to be done to mitigate them in the
 8 time that's available, and also to
 9 understand, you know, just how, what
 10 circumstances could give rise to that risk,
 11 so looking at the recapture energy for 2018,
 12 I think it's your evidence that that 493 is
 13 based on the LIL being in service, full in
 14 service, I'll call it, in 2018, in October
 15 1st, 2018.
 16 MR. FAGAN:
 17 A. That's what the production plan reflects,
 18 yes.
 19 MR. COXWORTHY:
 20 Q. Okay, so if it's November 1st, 2018, if
 21 that's what turns out to be LIL full in
 22 service, and by full in service, I mean able
 23 to carry 225.
 24 MR. FAGAN:
 25 A. Okay, that's fair, for purposes of, yes.

Page 80

1 MR. COXWORTHY:
 2 Q. We agree that that's what we both mean –
 3 MR. FAGAN:
 4 A. That would be okay for the mathematics we're
 5 talking about, yes.
 6 MR. COXWORTHY:
 7 Q. Okay, so if it turns out that that time is
 8 not October 1st, 2018, but November 1st, 2018,
 9 for argument sake, can you tell us, if not
 10 by exact figures, by what magnitude that
 11 would have an impact on the recapture energy
 12 for 2018?
 13 MR. FAGAN:
 14 A. I don't know, we can get it.
 15 MR. COXWORTHY:
 16 Q. Is it possible for you to get that
 17 information for us?
 18 MR. FAGAN:
 19 A. We can get that information.
 20 (10:36 a.m.)
 21 MR. COXWORTHY:
 22 Q. If I could have an undertaking for that, and
 23 could I have it also for, if the full in
 24 service date is December 1st, 2018?
 25 MR. FAGAN:

Page 81

1 A. Sure.

2 MS. GLYNN:

3 Q. Noted on the record.

4 MR. COXWORTHY:

5 Q. And before we leave, I'm sure we may be back

6 to Table 1, but before I leave Table 1 for

7 now, that is in the August 3rd filing,

8 Hydro's most recent and up-to-date

9 information with respect to available

10 recapture energy and off-island purchases

11 for 2018 and 2019?

12 MR. FAGAN:

13 A. Could you just repeat that, please?

14 MR. COXWORTHY:

15 Q. The information in Table 1 of the August 3rd,

16 2018 filing, that is Hydro's most recent,

17 most up-to-date information on the available

18 recapture energy and other off-island

19 purchases, the expected supply for 2018 and

20 2019?

21 MR. FAGAN:

22 A. That's correct, yes.

23 MR. COXWORTHY:

24 Q. Still on Table 1, for the 2018 recapture

25 energy, would it be possible to get a

Page 82

1 monthly breakdown of how much of that is

2 coming in in October of 2018, how much of

3 that is coming in or projected to come in in

4 November 2018, how much of that is projected

5 to come in –

6 MR. FAGAN:

7 A. I think we bill that into the undertaking

8 that you requested.

9 MR. COXWORTHY:

10 Q. I think that information will come from

11 that.

12 MR. FAGAN:

13 A. Yes.

14 MR. COXWORTHY:

15 Q. But I would like to have the same

16 information for 2019 for recapture energy,

17 break it down by month.

18 MR. FAGAN:

19 A. Sure.

20 MR. COXWORTHY:

21 Q. And I understand and there's a footnote

22 there, footnote for off-island purchases and

23 the footnote says we don't to provide a

24 breakdown for confidentiality purposes, and

25 I certainly don't want to seek any

Page 83

1 information that is confidential, but would

2 it be confidential to break down that figure

3 for 2018 and 2019 by month?

4 MR. FAGAN:

5 A. I'd have to ask my production people.

6 MR. COXWORTHY:

7 Q. So not saying where it came from, but you

8 know, how much other off-island purchases

9 are coming in in January, how much is coming

10 in and I understand –

11 MR. FAGAN:

12 A. I'd be surprised if it is, I think we should

13 be able to provide it.

14 MR. COXWORTHY:

15 Q. I wouldn't have thought it was either, but

16 on the other hand, you know, I don't want to

17 presuppose anything, so –

18 MR. FAGAN:

19 A. We'll check into it.

20 (10:36 a.m.)

21 MR. COXWORTHY:

22 Q. - if we could have an undertaking for that,

23 subject to check, in terms of any concerns

24 with confidentiality.

25 MR. FAGAN:

Page 84

1 A. We could try and build both of those into a

2 single undertaking, I suppose.

3 MR. COXWORTHY:

4 Q. Yes, we can treat it as one big undertaking,

5 really it's providing us a monthly breakdown

6 of Table 1 in terms of the recapture energy

7 and the other off-island purchases, the

8 latter to the extent that, you know, we're

9 not violating any confidentiality concerns.

10 And I guess the last thing with recapture

11 energy is I've only talked about October,

12 November, December, but you've talked about

13 some recapture energy has already been

14 brought in over the LIL, and we've been told

15 this by others, it's already happened,

16 there's already been some brought over.

17 Those numbers, are they in the 493 as well?

18 If 485 gigawatt hours came over in June, for

19 argument sake, is that in the 493?

20 MR. FAGAN:

21 A. There's a forecast of what we're bringing

22 over testing reflected in that.

23 MR. COXWORTHY:

24 Q. Yeah, okay, so if we could have the figures

25 for previous months, previous to October, of

Page 85

1 what's come over every month?

2 MR. FAGAN:

3 A. So a monthly breakdown of '18 and '19.

4 MR. COXWORTHY:

5 Q. For everything that was in 2018, that's

6 right, and '19. Thank you. I think that

7 covers it.

8 MS. GLYNN:

9 Q. So that will all be one undertaking.

10 MR. COXWORTHY:

11 Q. One big undertaking. Thank you. In terms

12 of the other off-island purchases and the

13 amounts that are being shown for 2018 and

14 2019, and I guess there's a risk if the LIL

15 isn't commissioned, fully commissioned in

16 October or November or December, that you're

17 not going to be able to bring the full

18 amount of recapture energy that's shown

19 there, and I guess I want to explore again

20 without getting into any, hopefully any

21 confidentiality issues, the extent to which

22 there is flexibility or opportunity to

23 increase other off-island purchases, so the

24 line there, 113 and 96, so if it turns out

25 that the recapture energy amounts are not

Page 86

1 what were forecast originally, how nimble

2 does Hydro have to be or now nimble can

3 Hydro be to make up those deficits by

4 getting more other off-island purchases, and

5 I did ask Jennifer Williams some questions

6 around this about in addition to long-range

7 contracts, there also was an opportunity

8 from time to time to take advantage of

9 opportunities that would show up, you know,

10 you know, in a shorter term, sort of buy

11 things on the spot market, if I can put it

12 that way, buy power on the spot market,

13 which didn't necessarily require the same

14 amount of long-range planning. Do you know

15 whether there is any plan or objective for

16 Hydro should it be unable to meet the

17 recapture energy targets that are shown

18 there, to try and make that up with other

19 off-island purchases?

20 MR. FAGAN:

21 A. Well a couple of points on that, if the

22 Labrador Island Line wasn't available, if we

23 assume it wasn't available at '18 for a

24 moment, okay, so you'd be back to, I guess,

25 let's go back to testing, I suppose, so

Page 87

1 you'd probably still get some, but limited,

2 so let's assume you still get the 45

3 megawatts, for example, but then when you're

4 looking at other off-island purchases, I

5 guess the parties that you would be

6 negotiating would know that your marginal

7 costs are still Holyrood, so you're not

8 going to get near the price and savings that

9 you'd be getting if you could use recapture,

10 okay?

11 MR. COXWORTHY:

12 Q. It still might be cheaper than Holyrood, but

13 it's not going to be as cheap as the

14 recapture.

15 MR. FAGAN:

16 A. Right, and we talked a bit yesterday about

17 in Table 2, I think the average price in '18

18 was probably around 12 cents a kilowatt

19 hour, so which would be less than the

20 average fuel costs, but you'd be getting,

21 you know, it's still material dollars, but

22 you're probably talking one-tenth of the

23 magnitude that you would be getting with

24 regard to the recapture or more obviously.

25 MR. COXWORTHY:

Page 88

1 Q. And I would think that would be probably

2 difficult to reach long-range contracts, and

3 that's why I was wondering what the spot

4 opportunities, where someone has surplus

5 energy, they want to sell it, you know, this

6 is not a question of, and you know, they're

7 willing, perhaps, to sell it at a price

8 that's less than they would have sold it at

9 a long range where they're taking all these

10 other things into account.

11 MR. FAGAN:

12 A. But you are limited in the spot, from the

13 perspective of a New England market with

14 regard to, Mr. Browne just brought up,

15 response CA-263, that even with the average

16 cost in a day being about 4 cents per

17 kilowatt hours US, by the time you get it to

18 the island, you're dealing with 10 to 11

19 cents per kilowatt hour, assuming it's

20 available. We've got no capacity

21 constraints limiting access to –

22 MR. COXWORTHY:

23 Q. And that's just because of the wheeling

24 rates that are involved, it's not a

25 negotiation problem so much as that's just

Page 89

1 intrinsically because of the wheeling rates
 2 –
 3 MR. FAGAN:
 4 A. Right, it's your transmission tariffs and
 5 it's your losses, primarily, that you're
 6 paying –
 7 MR. COXWORTHY:
 8 Q. So you think even on the spot market the
 9 best you're likely to achieve is 10 or 11
 10 cents?
 11 MR. FAGAN:
 12 A. Yeah, I mean, so what you're dealing with
 13 is, obviously the parties that are closer to
 14 you, you've got less losses and less
 15 transmission tariffs, so but of course, they
 16 also know what your marginal costs are, so
 17 while you may have less transmission tariffs
 18 and less losses, it doesn't necessarily mean
 19 you get a better deal because if the party
 20 knows what your marginal costs are, they're
 21 negotiating with respect to that, so you
 22 will, I think if you didn't have the
 23 Labrador Island Link, you wouldn't have
 24 additional off-island purchases over the
 25 Maritime Link, but your savings wouldn't be

Page 90

1 large, not in the magnitude of the dollars
 2 we're talking about.
 3 MR. COXWORTHY:
 4 Q. So I'm taking from this, and correct me if
 5 I'm wrong, that to achieve forecast savings
 6 from off-island purchases or deliveries, and
 7 I include broadly within that the recapture
 8 energy, it's very important that that level
 9 of recapture energy by achieved, in terms of
 10 deliverables to the island?
 11 MR. FAGAN:
 12 A. That's correct.
 13 MR. COXWORTHY:
 14 Q. And very important in 2018 that that October
 15 1, 2018 date be achieved for in service?
 16 MR. FAGAN:
 17 A. That's correct.
 18 MR. COXWORTHY:
 19 Q. When will Hydro know whether October 1st,
 20 2018 is going to be achieved? Not that
 21 that's what we're aiming for, or that's our
 22 aggressive target or our reach target, when
 23 will Hydro be advised by Nalcor, yes, will
 24 it be the very day they know they can, or
 25 will they be able to give you some advance

Page 91

1 notice that look, everything is going the
 2 right way, we have a high level of
 3 confidence October 1st, 2018 is the date.
 4 MR. FAGAN:
 5 A. I'm not sure, I just know there's still a
 6 lot of uncertainty based on talking to
 7 Nalcor Power Supply about that date, but I
 8 expect as things evolve over the, you know,
 9 next few weeks, and they have ongoing
 10 meetings, there'll be updates, so I'm sure
 11 one would hope that, you know, well before
 12 that you would have a feel for whether it's
 13 achievable or not, but I really don't know.
 14 MR. COXWORTHY:
 15 Q. If Hydro were to be told, say September 1,
 16 you know what, we're not going to make
 17 October 1st, it's going to be November 1st,
 18 2018, what, if anything, would Hydro do to
 19 try and mitigate that effect in terms of
 20 off-island purchases savings for customers?
 21 MR. FAGAN:
 22 A. Well it depends on which perspective, I
 23 think obviously we'd, from a GRA rate
 24 setting perspective, I think, depending on
 25 when we get the Board order, I think we'd

Page 92

1 want to modify our excess revenues for
 2 purposes of our compliance filing. From a
 3 production planning perspective, I think
 4 they'd obviously look at what their other
 5 options are for off-island purchases, so
 6 they continue to get whatever savings they
 7 can for customers.
 8 MR. COXWORTHY:
 9 Q. So I think you're suggesting there might—the
 10 result in some changes in the compliance
 11 filing?
 12 MR. FAGAN:
 13 A. Yes, I believe that would be the prudent
 14 thing to do.
 15 MR. COXWORTHY:
 16 Q. If we could move on to IC-NLH-122 and if we
 17 could turn to page 15, and Mr. O'Brien asked
 18 you some questions about this page, Mr.
 19 Fagan, and I asked Ms. Hutchens when she was
 20 present for presentation of this slide show
 21 to Hydro's executive and I understood that
 22 she said she had been. Were you at the same
 23 presentation or did you have any—were you
 24 present at any presentation of this
 25 SlideDeck by Nalcor?

Page 93

1 MR. FAGAN;
 2 A. I was at a presentation when this SlideDeck
 3 was presented.
 4 MR. COXWORTHY:
 5 Q. Okay, and by someone who knew what—who was
 6 involved in the preparation of the SlideDeck
 7 or understood the information that was
 8 included in it?
 9 MR. FAGAN:
 10 A. There was several representatives of Nalcor
 11 Power Supply present.
 12 MR. COXWORTHY:
 13 Q. And the O&M cost here estimated and Mr.
 14 O'Brien highlighted the fact that in 2012
 15 they were estimate at 34 million and five
 16 years later, 109 million and you were asked
 17 whether you had any understanding as to why
 18 it increased, and I think you had indicated
 19 obviously that the first level, the first
 20 estimate had been a high-level estimate, and
 21 these things tend to go up, as you refine
 22 them, and I guess the passage of time as
 23 well might be an explanation. Do you have
 24 any other understanding of why it has
 25 increased from 34 million to 109 million?

Page 94

1 And I guess in asking that, I'd ask you to
 2 look at the sub bullet "updated annual O&M
 3 costs to be consistent with industry
 4 standard equals 100 million", so I read that
 5 and I take from that that that's an attempt
 6 to indicate, at least in part, why there's
 7 been an increase because if you add the 100
 8 million to the 9 million before that, you
 9 get the 109 million. So in the context of
 10 your being present at that presentation, do
 11 you have an understanding of what industry
 12 standard is being referred to there?
 13 (10:45 a.m.)
 14 MR. FAGAN:
 15 A. I think there's another slide here which
 16 refers to a percent of capital.
 17 MR. COXWORTHY:
 18 Q. And I was wondering whether it might be,
 19 yeah, I think you might be referring to page
 20 12. If we can turn to page 12?
 21 MR. FAGAN;
 22 A. If you've got it there, just turn to page
 23 12.
 24 MR. COXWORTHY:
 25 Q. Not page 12, I've got my numbers—but there

Page 95

1 is a page with a graphical representation
 2 and I apologize, I don't have the page
 3 number here correctly, I think it's after
 4 page 15, if we could scroll down.
 5 MR. FAGAN:
 6 A. It's got an odd shape on it.
 7 MR. COXWORTHY:
 8 Q. Continue to scroll down. I'm sorry, this is
 9 why, it's in a different document,
 10 Undertaking 54.
 11 MR. FAGAN:
 12 A. 54, okay.
 13 MR. COXWORTHY:
 14 Q. If we can turn to Undertaking 54, so I had
 15 my page number right, just my documents
 16 wrong. And I think Undertaking 54, page 12.
 17 MR. FAGAN:
 18 A. I recall Mr. Marshall giving a presentation
 19 and talking about the increased O&M, first
 20 time it went out publicly, and it's my
 21 understanding it was based on a percentage
 22 of capital in coming up with the number, but
 23 the detail behind it, I wasn't sure, but it
 24 sounds reasonable when they talk about the
 25 industry standard, what you're pointing to?

Page 96

1 MR. COXWORTHY:
 2 Q. So is that rule of thumb might be putting it
 3 to glibly, but is it the idea that if you
 4 have an asset that's worth "X", your O&M,
 5 your transmission O&M will be a fixed
 6 percentage of that?
 7 MR. FAGAN:
 8 A. What?
 9 MR. COXWORTHY:
 10 Q. Or should be at least within a range of a
 11 fixed percentages?
 12 MR. FAGAN;
 13 A. I think it depends on the maturity with
 14 respect to age of the assets and whether
 15 you're looking at original costs or real
 16 dollars, there's a number of factors that
 17 will come into play, whether it's new
 18 assets. I don't think, I don't know if I
 19 can accept it as a standard approach, we've
 20 had that debate over the specifically
 21 assigned charge and how original costs can
 22 distort an estimate of O&M. If an asset
 23 costs double what it was budgeted to cost, I
 24 don't know if you would assume that your O&M
 25 would double, so I struggle with the

Page 97

1 standard of applying a percentage to the
 2 capital.
 3 MR. COXWORTHY:
 4 Q. Sure, and look, to use the example you're
 5 just using with specifically assigned
 6 charge, is that, you know, the Industrial
 7 Customer's expert, Patrick Bowen, has, I
 8 think previously testified that, you know,
 9 the best world would be where we track O&M
 10 charges individually, rather than just apply
 11 a global percentage and I guess, you know,
 12 taking that sort of dichotomy between doing,
 13 assigning a fixed percentage to, based on
 14 the gross value of an asset, as opposed to
 15 tracking specifically O&M, I guess that's
 16 what I'm trying to get at here, is in terms
 17 of what is Hydro's understanding of how
 18 Nalcor is calculating its transmission O&M?
 19 Is it a tracking model that they're using,
 20 they're tracking individual O&M costs and
 21 that's what they're going to present to you
 22 in an invoice, or are they saying, no, this
 23 is the gross value of the assets that are
 24 involved and there is a certain percentage
 25 that we should be receiving as transmission

Page 98

1 O&M based on that gross value and based on
 2 an industry standard which, you know, again,
 3 I take you back to that question as to
 4 whether you understand what industry
 5 standard they're referring to, but based on
 6 some industry standard, and taking that
 7 number as, well that's the number that we
 8 should be receiving, quite apart from
 9 whether that tracks as exactly what we've
 10 spent, so what is your understanding based
 11 on what's been presented to you in these
 12 documents and otherwise of how Nalcor is
 13 calculating the transmission O&M?
 14 MR. FAGAN:
 15 A. Well, as I recall after this information
 16 became available to Hydro, we requested
 17 detail of the O&M costs that were presented
 18 because of the material increase compared to
 19 what was in the financial projections that
 20 were provided previously. It wasn't that
 21 long, I think, before the RFI request came
 22 from the Board, PUB-18, requesting the
 23 details, because this cost, whether it's
 24 approved by the Board or not, it's a cost to
 25 be recovered from customers, so we've got to

Page 99

1 present the costs the same way we present
 2 our O&M costs to the Board, showing the
 3 detailed information. So that led to the
 4 breakdown of information, but it was
 5 strictly related to the Labrador Island Link
 6 and the Labrador Transmission Assets because
 7 that's always been proposed for recovery at
 8 this time.
 9 MR. COXWORTHY:
 10 Q. That's the information that's in Undertaking
 11 54.
 12 MR. FAGAN:
 13 A. Yes, which is consistent with the response
 14 to PUB-18.
 15 MR. COXWORTHY:
 16 Q. Sure, and there's no more detailed
 17 information than that as to—that Hydro has
 18 received.
 19 MR. FAGAN;
 20 A. There's no more detailed information we've
 21 been told is available as of yet.
 22 MR. COXWORTHY:
 23 Q. So going back then to IC-NLH-122 and page
 24 15, so again, to be consistent with industry
 25 standard equals 100 million, you had

Page 100

1 mentioned I think Christensen's in the
 2 context of questioning around this that Mr.
 3 Browne put to you, and I guess based on
 4 their review, do you have an understanding
 5 as to what industry standard is referring to
 6 in that slide?
 7 MR. FAGAN:
 8 A. I discussed this industry standard being
 9 mentioned to you with regard to a percentage
 10 of capital to Christensen's and they weren't
 11 comfortable with use of that industry
 12 standard and felt you needed to look more on
 13 the lines of benchmarking of other
 14 utilities' O&M costs, but certainly breaking
 15 down AC versus DC. The difference in AC
 16 they indicate, and DC, wouldn't be that
 17 different except for convertor stations are
 18 a large portion of the costs, so you need to
 19 break O&M costs related to convertor
 20 stations separately. So they would have
 21 gone about it a different way in coming up
 22 with their estimates of what they thought
 23 the costs would be. I never provided the
 24 information to Christensen's on what the
 25 numbers were, so I wasn't trying to get them

Page 101

1 to come justify and give me a number that is
 2 consistent with what was provided by Power
 3 Supply. We have Christensen the attributes
 4 of the lines, the distances and the
 5 technical specifications so that they could
 6 go out and see if they could find
 7 information that was, that would come up
 8 with reasonable estimates of O&M costs, so
 9 that's what they used.
 10 MR. COXWORTHY:
 11 Q. And I take it from that then, and if I've
 12 misunderstood the reference, please correct
 13 me, that Nalcor isn't breaking out the
 14 convertor stations or looking at them
 15 separately, but are just looking at the
 16 whole asset base DC lines and convertors
 17 together when they present transmission O&M,
 18 as opposed to what Christensen's said they
 19 would likely do, which is break out the
 20 convertor stations?
 21 MR. FAGAN:
 22 A. I don't think I've seen detailed breakdowns
 23 in the information that's been provided. I
 24 don't think in the Deck information that's
 25 provided is showing a detailed break –

Page 102

1 MR. COXWORTHY:
 2 Q. No, I agree it's not in the Deck.
 3 MR. FAGAN:
 4 A. Right, so I don't think we've seen a
 5 detailed breakdown by component, convertor
 6 station versus line.
 7 MR. COXWORTHY:
 8 Q. But did Christensen's have enough
 9 information from whatever sources to
 10 understand that Nalcor was using a different
 11 methodology than they might have suggested
 12 or used?
 13 MR. FAGAN:
 14 A. They didn't see any of Nalcor's projections.
 15 They basically got the information about the
 16 assets and went out to see what information
 17 they could find to come up with what they
 18 thought reasonable projections of O&M might
 19 be for that type of an asset.
 20 MR. COXWORTHY:
 21 Q. It's already been described by other
 22 witnesses how there will be a process when
 23 Nalcor submits invoices where they will be
 24 reviewed by Hydro for, I'll say for
 25 reasonableness. Everyone has made the point

Page 103

1 that the ability to flat out say no, we
 2 won't pay is obviously limited, perhaps
 3 prohibited, by orders-in-council, but that
 4 doesn't mean that Hydro won't review them
 5 for reasonableness and take questions back
 6 to Nalcor and perhaps changes, there have
 7 already been examples of changes that have
 8 been made based on that sort of process. So
 9 in that context, will Hydro, you've already
 10 said, granted in a different context as
 11 director of regulatory affairs, that you're
 12 not the expert on, for instance, pancaking
 13 and what's happening in the States. Are you
 14 the expert or do you have expertise in terms
 15 of assessing the reasonableness of the
 16 transmission costs that are going to be
 17 submitted by Nalcor, and if you are not, is
 18 there someone else within Hydro who you
 19 believe is that expert, that person that has
 20 that expertise?
 21 MR. FAGAN:
 22 A. I think it would be, it's not me, okay, I
 23 just want to make that clear first, but I
 24 think it would be a combination of Mr.
 25 LeBlanc's team and certain types of costs

Page 104

1 that would be administratively related that
 2 would be, that would be finance, so Ms.
 3 Hutchens, so both on the technical and the
 4 administrative side that would probably be
 5 the best people to, that would assess the
 6 costs for reasonableness.
 7 MR. COXWORTHY:
 8 Q. Thank you, Mr. Fagan. If we could turn to
 9 page 12, Table 7 in the August 3rd, 2018
 10 supplementary evidence, page 12. And at the
 11 top of the page, I believe Mr. O'Brien asked
 12 you some questions regarding the table up
 13 there and the impact if the LIL full in-
 14 service is delayed, and at a high level, I
 15 don't think, you didn't try to crunch any
 16 numbers, but at a high level you talked
 17 about the impact on cost recovery from
 18 Newfoundland Power, Newfoundland Power's
 19 customers if there was a delay in the LIL,
 20 full in-service.
 21 MR. FAGAN:
 22 A. Yeah, if I recall it was more along the
 23 lines that the excess revenue could become a
 24 deficiency.
 25 MR. COXWORTHY:

Page 105

1 Q. That's right, and I guess I would ask you,
 2 below that table there is, it's not in
 3 tabular form, but there's commentary on the
 4 same issue for the Island Industrial
 5 Customers in terms of what's expected to
 6 occur there, which is essentially a wash, if
 7 I can put it that way, given the amount, but
 8 if the LIL full in-service is delayed, say
 9 to November 1st, 2018 or December 1st, 2018,
 10 can you at a high level given an indication
 11 as to what that might mean if nothing else
 12 is done to mitigate that, what that might
 13 mean for Industrial Customer rates, in 2019,
 14 I would presume?
 15 MR. FAGAN:
 16 A. Let me think about it over the break.
 17 MR. COXWORTHY:
 18 Q. Okay, and it is break time, perhaps now,
 19 Madam Chair, if I could suggest now would be
 20 a good time to break.
 21 CHAIR:
 22 Q. We'll reconvene in 30 minutes, thank you.
 23 (RECESS – 10:58 A.M.)
 24 (RECONVENE – 11:36 A.M.)
 25 CHAIR:

Page 106

1 Q. Back to you, Mr. Coxworthy.
 2 MR. COXWORTHY:
 3 Q. Thank you, Madam Chair. Mr. Fagan, when we
 4 broke you were going to think about my
 5 question and this was in relation of, if you
 6 can bring it back on the screen, to the
 7 August 3rd supplementary evidence, page 12.
 8 Yes, thank you. Table 7 and ask you to
 9 comment on, at a high level, I'm not asking
 10 for exact numbers, on the impact to
 11 Industrial Customers if the LIL's full in-
 12 service was to be delayed to November or
 13 December 2018.
 14 MR. FAGAN:
 15 A. Yeah, I think if we look at Table, well 2018
 16 savings were about 44 million, and if you
 17 look at 2018 energy allocation to be about
 18 10 percent, so about 4.4 million savings
 19 would be lost for Industrials, so you'd be
 20 dealing with the excess revenues would
 21 probably be, you know, around a million
 22 dollars.
 23 MR. COXWORTHY:
 24 Q. And what would that mean in terms of right
 25 now, January 2019, the Industrial Customers

Page 107

1 are looking at a 6.1 percent increase, I
 2 think.
 3 MR. FAGAN:
 4 A. Well 4 million dollar swing is, that would
 5 be deferred over 20 months, so you've got
 6 200,000 a month.
 7 MR. COXWORTHY:
 8 Q. Again, I'm just looking for a –
 9 MR. FAGAN:
 10 A. Probably about a 6 percent increase extra.
 11 MR. COXWORTHY:
 12 Q. So from 6 to 12?
 13 MR. FAGAN:
 14 A. Yes, I think that probably be a reasonable
 15 number.
 16 MR. COXWORTHY:
 17 Q. And would it be fair to say that would be a
 18 rate shock type of rate increase?
 19 MR. FAGAN:
 20 A. I always struggle with the number, but it's
 21 material and it's above 10 percent.
 22 MR. COXWORTHY:
 23 Q. And is that an issue that should that come
 24 to task that would be addressed in the
 25 compliance application or could be addressed

Page 108

1 in the compliance application?
 2 MR. FAGAN:
 3 A. I think we would need to look at it because
 4 what we're dealing with the Industrial
 5 Customers is also an RSP effect that's going
 6 on at the same time, so you'd want to look
 7 at the RSP amount and if we were dealing
 8 with an increase that was, you know, about
 9 10 percent, it's possible you could amortize
 10 RSP recoveries over, or even this amount
 11 over a different period to reduce that, I
 12 don't think that would be unreasonable.
 13 MR. COXWORTHY:
 14 Q. Are there other mitigation measures that can
 15 be considered?
 16 MR. FAGAN:
 17 A. We're open for suggestions.
 18 MR. COXWORTHY:
 19 Q. I'll leave it at that. If we could move on
 20 to the future filings with the Board, the
 21 upcoming filings with the Board and you
 22 outlined a number of them in the course of
 23 your evidence with Mr. O'Brien in terms of
 24 the busy regulatory calendar.
 25 MR. FAGAN:

Page 109

1 A. I missed a couple, actually.
 2 MR. COXWORTHY:
 3 Q. Well, great, maybe we can get those in there
 4 too, but the cost of service review, the
 5 Settlement Agreement provides that's going
 6 to be, something is going to be filed in
 7 November of this year, 2018.
 8 MR. FAGAN:
 9 A. Yes.
 10 MR. COXWORTHY:
 11 Q. And I guess I wanted to explore what that
 12 something was going to be, it already to go
 13 and ready to be filed, or has Hydro started
 14 work on its, on that filing?
 15 MR. FAGAN:
 16 A. Yes, we started work on the filing already.
 17 So when we filed our report on the cost of
 18 service methodology in 2016, I've been
 19 dealing with our consultants, we're
 20 revisiting the report and filing updates.
 21 MR. COXWORTHY:
 22 Q. So will it just be a tweaking of that or is
 23 it, do you expect it's going to be
 24 significantly different based on –
 25 MR. FAGAN:

Page 110

1 A. I think it's a tweaking of, but with more
 2 specific recommendations with regard to
 3 approaches. There was some, when we filed
 4 it, there was one of the options that was
 5 presented in the cost of service methodology
 6 review as use of marginal cost allocator and
 7 so there will be more discussion on that and
 8 maybe another option that may not have been
 9 presented at that time, so it would be more
 10 of a tweaking, I think, but it would have to
 11 be an application, I think, as well, whereas
 12 the last one was previously report.
 13 MR. COXWORTHY:
 14 Q. Okay, so you vision what's filed in November
 15 to be an application by Hydro with specific
 16 recommendations?
 17 MR. FAGAN:
 18 A. I think in a number of cases specific
 19 recommendations may be in some cases options
 20 for the Board to consider, but I think
 21 application generally has a request for
 22 approval of some specific –
 23 MR. COXWORTHY:
 24 Q. Of something, yeah. And you've also
 25 mentioned and both past and what I

Page 111

1 understand to be future filings, you've
 2 mentioned the previous, I think 2016 rate
 3 design filing, but I think you've also, I
 4 understood anyway, you're indicating there
 5 was going to be a further rate design
 6 filing.
 7 MR. FAGAN:
 8 A. With our review, our reports that we file
 9 and see if there's any further update
 10 required and also engage the parties in
 11 discussions about a contact at Newfoundland
 12 Power recently about what we put forward and
 13 if they want to give us some feedback on
 14 what their preference is before we file,
 15 I've got to do the same for Industrials
 16 fairly soon when I get off the stand.
 17 MR. COXWORTHY:
 18 Q. And will that be filed before the cost of
 19 service application?
 20 MR. FAGAN:
 21 A. That's the hope. We've got three filings
 22 planned and our first item on the plan was
 23 to file a marginal cost update; the second
 24 plan was to file an update of the rate
 25 design review for Newfoundland Power and

Page 112

1 Industrial Customers and the third would be
 2 the cost of service methodology.
 3 MR. COXWORTHY:
 4 Q. And the third one that you've raised, both
 5 the past marginal cost filing, but you've
 6 also said there's going to be—is this just
 7 going to be an update then of the previous
 8 marginal cost filing that you made, again, I
 9 think it was in 2016?
 10 MR. FAGAN:
 11 A. I think it will be an update with probably,
 12 the last report that was filed was fairly
 13 technical, so we're trying to make it easier
 14 to understand, so enhance the
 15 understandability of the document and update
 16 the numbers, as well as incorporate more
 17 current status with regard to system
 18 capacity requirements with respect to
 19 marginal costs, that's evolving over time.
 20 MR. COXWORTHY:
 21 Q. As I've heard your evidence, you've been
 22 emphasizing a particular marginal cost of
 23 capacity, is there going to be additional
 24 information, filings, evidence around that
 25 particular issue in the upcoming filing?

Page 113	<p>1 MR. FAGAN:</p> <p>2 A. I think we will have to have, well there's a</p> <p>3 report, basically a reliability study, I</p> <p>4 think maybe Ms. Williams talked about, so</p> <p>5 we'll have better and I think that probably</p> <p>6 has to be completed in November, we'll have</p> <p>7 more information relatively soon with regard</p> <p>8 to the timing of planned gas turbine</p> <p>9 replacements and stuff, so you want to have</p> <p>10 that reflected in your marginal cost</p> <p>11 assumptions, so updating our marginal costs</p> <p>12 to reflect, we call it internal marginal</p> <p>13 capacity costs, whereas the marginal energy</p> <p>14 costs is more related to the markets, so</p> <p>15 that would be a plan to be reflected in that</p> <p>16 filing.</p> <p>17 MR. COXWORTHY:</p> <p>18 Q. And is the plan to file the updated marginal</p> <p>19 cost filing also before the cost of service</p> <p>20 filing in November?</p> <p>21 MR. FAGAN:</p> <p>22 A. Yes, that's the plan.</p> <p>23 MR. COXWORTHY:</p> <p>24 Q. That's the plan, there's a level of</p> <p>25 uncertainty in it and is that just because</p>	Page 115	<p>1 Q. If the marginal rate update or the rate</p> <p>2 design updates are not ready to be filed,</p> <p>3 might that delay the cost of service review</p> <p>4 filing?</p> <p>5 MR. FAGAN:</p> <p>6 A. They will be ready.</p> <p>7 MR. COXWORTHY:</p> <p>8 Q. They will be ready?</p> <p>9 MR. FAGAN:</p> <p>10 A. Yes.</p> <p>11 MR. COXWORTHY:</p> <p>12 Q. In time for the cost of service filing.</p> <p>13 MR. FAGAN:</p> <p>14 A. Yes.</p> <p>15 MR. COXWORTHY:</p> <p>16 Q. You mentioned that there might be or will be</p> <p>17 some other filings that you haven't had a</p> <p>18 chance to mention previously.</p> <p>19 MR. FAGAN:</p> <p>20 A. Well there was one I didn't mention, one</p> <p>21 major one, I guess, we've got the general</p> <p>22 rate application, the next one, which would</p> <p>23 include Muskrat Falls cost recovery, which</p> <p>24 I'm certain –</p> <p>25 MR. COXWORTHY:</p>
Page 114	<p>1 there's a lot on Hydro's plate?</p> <p>2 MR. FAGAN:</p> <p>3 A. That's correct, it's also, you don't want to</p> <p>4 schedule, do them all the same time, okay,</p> <p>5 plus you want to have the marginal costs</p> <p>6 updated before you file your rate design</p> <p>7 report as well.</p> <p>8 MR. COXWORTHY:</p> <p>9 Q. Well, you know, I would have thought they</p> <p>10 all sort of, maybe this is overly</p> <p>11 simplistic, but all three of those filings,</p> <p>12 marginal cost, rate design, cost of service</p> <p>13 would be best certainly to deal with them</p> <p>14 concurrently.</p> <p>15 MR. FAGAN:</p> <p>16 A. Oh, now I agree with you, it's just from an</p> <p>17 administrative perspective that you may want</p> <p>18 a couple of weeks between each to get them</p> <p>19 out the door and get them through a proper</p> <p>20 review process, so it's more along the lines</p> <p>21 of our own internal administration of</p> <p>22 getting it down with a proper review, then</p> <p>23 it is about having one necessarily done</p> <p>24 before the other.</p> <p>25 MR. COXWORTHY:</p>	Page 116	<p>1 Q. Which right now you're thinking tentatively</p> <p>2 late in 2019?</p> <p>3 MR. FAGAN:</p> <p>4 A. Yeah, probably, yeah, I think that's fair,</p> <p>5 but also once that's concluded, the Board</p> <p>6 has approved interim transmission tariff,</p> <p>7 okay, so at the conclusion of that, you need</p> <p>8 to have a hearing with respect to open</p> <p>9 access transmission for file approval of</p> <p>10 transmission tariffs going forward</p> <p>11 reflecting post Muskrat Falls.</p> <p>12 MR. COXWORTHY:</p> <p>13 Q. Is there a timetable for that, in terms of</p> <p>14 when that has to be done?</p> <p>15 MR. FAGAN:</p> <p>16 A. No.</p> <p>17 MR. COXWORTHY:</p> <p>18 Q. Or when you need an order from the Board?</p> <p>19 MR. FAGAN:</p> <p>20 A. No. The fact that we've got interim rates</p> <p>21 approved allows us to proceed with and meet</p> <p>22 our open access requirement, so there's not</p> <p>23 a defined timeline required for that.</p> <p>24 MR. COXWORTHY:</p> <p>25 Q. No, I didn't think there was anything in the</p>

Page 117

1 direction to the Board or otherwise that
 2 sort of set a specific time.
 3 MR. FAGAN:
 4 A. No.
 5 MR. COXWORTHY:
 6 Q. Any other filings in the regulatory calendar
 7 leading up to the next GRA?
 8 (11:45 a.m.)
 9 MR. FAGAN:
 10 A. Beyond the ones I mentioned to Mr. O'Brien,
 11 I think I've covered all the bigger ones.
 12 We always have some that come out of nowhere
 13 at times, like cryptocurrency hearing and a
 14 few things like this, but there's no other
 15 ones that I'm aware of right now.
 16 MR. COXWORTHY:
 17 Q. With respect to the compliance application,
 18 obviously we need a decision from the Board
 19 and we're not in the position to estimate
 20 that, but I would assume you would be hoping
 21 to be in a position to make a compliance
 22 filing in 2018 in an idea of
 23 (unintelligible) open time to have January
 24 2019 rates?
 25 MR. FAGAN:

Page 118

1 A. We think it's still achievable. In our last
 2 general rate application, I mean, we were
 3 dealing with 2014 test year, '15 test year
 4 and then we were into '16 and '17 with
 5 regard to all the cost of service studies
 6 required to be filed for the purposes of
 7 establishing rates going forward, while some
 8 of the issues in this hearing have been
 9 complex, I think we're much further along,
 10 our team is much better prepared to deal
 11 with the compliance filing on a shorter
 12 timeline, so I think if we got a Board
 13 order, you know, in October, we'd hope to be
 14 able to get rates in.
 15 MR. COXWORTHY:
 16 Q. And if the compliance application, if it has
 17 to be filed in October, November, will that
 18 have any impact on when the cost of service
 19 review process will start? It seems to me
 20 they're two different processes. They're
 21 not linked to each other.
 22 MR. FAGAN:
 23 A. Two different processes, other than the same
 24 people doing a number of –
 25 MR. COXWORTHY:

Page 119

1 Q. Other than that.
 2 MR. FAGAN:
 3 A. Yes, other than that, that's true.
 4 MR. COXWORTHY:
 5 Q. Okay, that wouldn't, in and of itself, delay
 6 the cost of service review?
 7 MR. FAGAN:
 8 A. No, the marginal cost, rate design review,
 9 the cost of service filing, there's a small
 10 team on that in concert with our consultant
 11 that would work on that; whereas the
 12 compliance filing is more dealt with by my
 13 rates team.
 14 MR. COXWORTHY:
 15 Q. The expected or hoped for outcomes out of
 16 the cost of service review from Hydro's
 17 point of view, do those need to be reached
 18 by way of order from the Board before you
 19 file your next GRA?
 20 MR. FAGAN:
 21 A. I would think so.
 22 MR. COXWORTHY:
 23 Q. And would Hydro be prepared to say, would
 24 you be prepared to say based on your
 25 experience and what you know are the issues

Page 120

1 that are going to be raised at a cost of
 2 service review, how long do you think it's
 3 going to take to complete that process if
 4 you file in November, for instance?
 5 MR. FAGAN:
 6 A. I've mentioned some of the bigger issues,
 7 one of the biggest issue, I think in the
 8 Muskrat Falls, forget about the level of
 9 costs for a moment because I think that will
 10 depend on mitigation provided by the
 11 government, but with regard to the
 12 transmission line from Labrador, how's that
 13 treated in the cost of service. When the
 14 Labrador Island Link was put forward and the
 15 Muskrat Falls project was put forward before
 16 the Board in the hearing a few years ago, it
 17 was justified as a, effectively a generation
 18 project, so the line was being viewed as
 19 part of the generation and so treated as a
 20 generation project, while the lines also
 21 serving the purpose of providing
 22 transmission for exports, so one of the
 23 debates would be is it a transmission asset
 24 or is it a generation asset, or is it
 25 somewhere in between. And the impact of

Page 121	<p>1 your choice can impact customers materially,</p> <p>2 whether it's Newfoundland Power versus the</p> <p>3 Island Industrials, so I think that's</p> <p>4 probably one of the biggest issues in the</p> <p>5 cost of service methodology hearing. The</p> <p>6 mitigation provided by the province, I don't</p> <p>7 think we'll have, I don't know the timeline</p> <p>8 for the government making an announcement,</p> <p>9 okay? So for purposes of the cost of</p> <p>10 service hearing, we would have to analyze</p> <p>11 the costs, ignoring mitigation and assume</p> <p>12 mitigation is dealt with after as an offset</p> <p>13 for costs because you want to go through the</p> <p>14 proper cost allocation process first, okay.</p> <p>15 So mitigation, while it would be nice to</p> <p>16 know the plan, very useful I think to know</p> <p>17 the plan, it isn't necessary for devaluation</p> <p>18 of the allocation of the costs, but then, so</p> <p>19 I think that's the biggest issue. There was</p> <p>20 other matters in the report, in the cost of</p> <p>21 servicing, that have carried forward from</p> <p>22 previous proceedings, like the Corner Brook</p> <p>23 frequency convertor which may be off the</p> <p>24 table. The pilot agreement with Corner</p> <p>25 Brook Pulp & Paper, I think that could be</p>	Page 123	<p>1 from the perspective of "has anything</p> <p>2 changed". The last time there was a cost of</p> <p>3 service methodology hearing, it also looked</p> <p>4 at the allocation methodology for</p> <p>5 distribution costs, okay, but there will be</p> <p>6 really no reason to look at distribution</p> <p>7 costs again. So, I mean, for the purposes</p> <p>8 of the cost of service methodology hearing,</p> <p>9 I think we'd look and say for Hydro rural,</p> <p>10 that would just be a single cost item versus</p> <p>11 a revenue item. So while the debate over</p> <p>12 how the rural deficit may be an issue, how</p> <p>13 that's allocated could be an issue again in</p> <p>14 the cost of service methodology hearing, we</p> <p>15 won't get into debates about how you do</p> <p>16 distribution costs allocation, which would</p> <p>17 save time. So I think we're dealing with a</p> <p>18 limited number of issues, so I think it</p> <p>19 probably could be dealt with fairly quickly.</p> <p>20 There's not a lot of media –</p> <p>21 MR. COXWORTHY:</p> <p>22 Q. And to come back to my original question of</p> <p>23 how long you expect it to be, and I realize</p> <p>24 you're the eternal optimist, Mr. Fagan, but,</p> <p>25 look, I'll suggest to you based on what our</p>
Page 122	<p>1 dealt with as part of the rate design review</p> <p>2 for Island Industrial Customers effectively,</p> <p>3 but the non-firm rate would reflect under</p> <p>4 interconnection with the North American</p> <p>5 grid, so there's a number of small issues,</p> <p>6 but I think the treatment of the</p> <p>7 transmission line would be the biggest</p> <p>8 issue.</p> <p>9</p> <p>10 MR. COXWORTHY:</p> <p>11 Q. So I think you're suggesting, as you see it,</p> <p>12 there's some issues that perhaps could be</p> <p>13 amenable to, for instance, the settlement</p> <p>14 agreement that's an appropriate process in a</p> <p>15 cost of service agreement, but others you</p> <p>16 foresee could be sufficiently contentious or</p> <p>17 different points of view need to be brought</p> <p>18 to bear, that we would need to have a</p> <p>19 hearing and evidence called on?</p> <p>20 MR. FAGAN:</p> <p>21 A. I don't think it's going to take as long as</p> <p>22 the last time the Board had a hearing on</p> <p>23 cost of service methodology, because a lot</p> <p>24 of the fundamentals with regard to cost of</p> <p>25 service are – you're just reviewing them</p>	Page 124	<p>1 past experience has been, it's not likely</p> <p>2 that the cost of service issues would be</p> <p>3 resolved with a bow on them until mid 2019,</p> <p>4 even if things move very well and</p> <p>5 expeditiously. Is that fair?</p> <p>6 MR. FAGAN:</p> <p>7 A. I was hoping by May, but, yeah.</p> <p>8 MR. COXWORTHY:</p> <p>9 Q. And that's if you keep to your filings by</p> <p>10 November, 2018?</p> <p>11 MR. FAGAN:</p> <p>12 A. Yeah, we'll try and do our part, but, yes,</p> <p>13 the hearing processes take time, and some of</p> <p>14 this is complex and will definitely require</p> <p>15 expert evidence and scenario analysis to get</p> <p>16 a good understanding of the customer impacts</p> <p>17 of each issue. So it's not simple.</p> <p>18 MR. COXWORTHY:</p> <p>19 Q. No, I didn't think it was and you've</p> <p>20 confirmed and enlightened me in that regard,</p> <p>21 thank you. Mr. Fagan, you're the last Hydro</p> <p>22 witness – at least, you may be, anyway, so</p> <p>23 I'm going to ask this question.</p> <p>24 MR. FAGAN:</p> <p>25 A. If I knew there was someone else coming on,</p>

Page 125

1 I probably would have punted a few of those
 2 earlier ones.
 3 MR. COXWORTHY:
 4 Q. And you may still try and do that with this
 5 question, but the interim agreements, I'll
 6 call them, that are being negotiated now
 7 with respect to Hydro paying to presumably a
 8 Nalcor entity, the LIL, LTA costs, and when
 9 I say "interim", I say these are agreements
 10 that Hydro believes are necessary to bridge
 11 the period that will be covered by the
 12 existing Muskrat Falls purchase power
 13 agreement and the transmission funding
 14 agreement, they only kick in in terms of
 15 recovery of the LIL and LTA costs once
 16 Muskrat Falls project is up and running, but
 17 as Hydro sees it there's a period at least
 18 to be bridged starting from LIL in-service
 19 that isn't covered by those agreements and
 20 needs to be covered by, I'll call them,
 21 interim agreements or bridging agreements?
 22 MR. FAGAN:
 23 A. That's correct.
 24 MR. COXWORTHY:
 25 Q. Do you have any information as to when those

Page 126

1 bridging agreements will be filed with the
 2 Board?
 3 MR. FAGAN:
 4 A. I was hopeful they would have been completed
 5 by now, but I haven't had an update. As of
 6 yesterday, there were still issues to be
 7 resolved, so I think you'll have to ask
 8 legal counsel for an update on that one.
 9 MR. COXWORTHY:
 10 Q. Thank you. I have no further questions.
 11 Thank you, Mr. Fagan.
 12 CHAIR:
 13 Q. Thank you, Mr. Coxworthy, Mr. Fagan. Ms.
 14 Greene.
 15 GREENE, Q.C.:
 16 Q. Good morning, Mr. Fagan.
 17 MR. FAGAN:
 18 A. Good morning, Ms. Greene.
 19 GREENE, Q.C.:
 20 Q. The first thing that I wanted to ask you
 21 about was with respect to the upcoming
 22 applications before the Board that you
 23 outlined yesterday. The first one I had a
 24 question about is the ponding agreement that
 25 you referred to. I believe you indicated

Page 127

1 that you hope to file that relatively
 2 quickly, is that correct?
 3 MR. FAGAN:
 4 A. Yes, I know as of yesterday, I saw another
 5 draft of it being circulated, so I think
 6 it's certainly – I would be hopeful within a
 7 couple of weeks, I hope.
 8 GREENE, Q.C.:
 9 Q. And one of the outcomes of that agreement
 10 will be a sharing of benefits between Nalcor
 11 and Hydro with respect to the purchase of
 12 energy and the storage of energy for later
 13 export, is that correct?
 14 MR. FAGAN:
 15 A. So Hydro currently can't sell power off the
 16 island, as such, but, yes, this will be
 17 Nalcor Energy purchasing energy, effectively
 18 storing it in Hydro's reservoirs and when
 19 the prices are at a more opportune time for
 20 selling them, it would be sold and the
 21 savings would be kept in some form of a
 22 deferral account, which the Board would
 23 determine what the value of Nalcor Energy's
 24 contribution would be and what share would
 25 go to Nalcor Energy Marketing, and the

Page 128

1 remainder would go to Hydro's customers.
 2 GREENE, Q.C.:
 3 Q. And with respect to that, do you anticipate
 4 any savings to Hydro and eventually for
 5 customers with respect to the 2018 and 2019
 6 test years?
 7 MR. FAGAN:
 8 A. I don't have a forecast of what the
 9 potential ponding agreement savings are. I
 10 think certainly assuming it gets approved by
 11 the Board, the deferral account balance
 12 would accumulate, I think, by the time the
 13 Board would rule on the disposition of that.
 14 You're beyond '18 and probably would have
 15 our compliance filing, but the Board would
 16 determine the disposition of it. I'm sure
 17 there's options available for things to do
 18 with the funds, what savings are there.
 19 GREENE, Q.C.:
 20 Q. Because you mentioned you wanted it filed as
 21 soon as possible, so I thought from that it
 22 must be imminent and you just mentioned you
 23 have no forecast of what the potential
 24 impacts would be for the 2018 and 2019 test
 25 years?

Page 129

1 MR. FAGAN:
 2 A. Now the hurriedness with regard to filing is
 3 so we can go out and take advantage of the
 4 opportunity to get the benefits for
 5 customers. It's not with respect to using
 6 the savings for impacting rates coming out
 7 of this general rate application.
 8 GREENE, Q.C.:
 9 Q. The deferral account would be for post 2019,
 10 is that what I understood from your answer?
 11 MR. FAGAN:
 12 A. Well, a deferral account would be proposed
 13 to be established upon approval of us
 14 proceeding with the pending agreement, and
 15 it would accumulate the savings, but the
 16 disposition of whatever those savings would
 17 be would be subject to a future order of the
 18 Board.
 19 GREENE, Q.C.:
 20 Q. Okay, so you don't anticipate any impacts
 21 for 2018 to 2019 rates?
 22 MR. FAGAN:
 23 A. No.
 24 GREENE, Q.C.:
 25 Q. Similarly with respect to the second

Page 130

1 application that I wanted to ask you about,
 2 and it had to do with the optimization of
 3 export revenues?
 4 MR. FAGAN:
 5 A. Yes, that's a longer-term plan. I wouldn't
 6 anticipate that until later this year, later
 7 in the fall, but that's a plan for post
 8 Muskrat effectively, the implementation.
 9 GREENE, Q.C.:
 10 Q. And I believe in your evidence you testified
 11 that the government have indicated that
 12 export revenues will be used with respect to
 13 rate smoothing post Muskrat. Did I
 14 understand that correctly?
 15 MR. FAGAN:
 16 A. They've made those statements in the media.
 17 GREENE, Q.C.:
 18 Q. But Hydro has no confirmation directly from
 19 government with respect to the use of export
 20 revenues, is that correct?
 21 (12:00 p.m.)
 22 MR. FAGAN:
 23 A. I know there's no legislative requirement
 24 for it to be used to go back to the benefit
 25 of customers. I'm not dealing directly with

Page 131

1 government myself on that, so I'm unsure if
 2 we've been officially told, but we're
 3 assuming that's what will be used for rate
 4 mitigation.
 5 GREENE, Q.C.:
 6 Q. Again why the schedule for filing in 2018?
 7 MR. FAGAN:
 8 A. Well, I think we recognize it takes time for
 9 regulatory process, so you want – I'm not
 10 sure if that's '18. I'm assuming the plan
 11 was to have it in late '18, because I
 12 figured – I think we believe it to be a
 13 fairly extensive regulatory process around
 14 that, so we didn't want to be waiting too
 15 late before we file applications with the
 16 Board. Given the regulatory schedule before
 17 the Board, we want to provide it to the
 18 Board so the Board can set its own schedule
 19 for dealing with the application and not
 20 trying to rush things through.
 21 GREENE, Q.C.:
 22 Q. At this time does Hydro have any forecast of
 23 the potential savings from export revenues
 24 that would be available?
 25 MR. FAGAN:

Page 132

1 A. With respect to the long-term plan?
 2 GREENE, Q.C.:
 3 Q. Yes.
 4 MR. FAGAN:
 5 A. I think there's been forecasts done for the
 6 value of exports. There's been forecasts
 7 done by Nalcor in the past. However,
 8 markets keep changing over time. I haven't
 9 seen anything recent on what the numbers
 10 would be.
 11 GREENE, Q.C.:
 12 Q. And again nothing anticipated for '18 or
 13 '19?
 14 MR. FAGAN:
 15 A. No, because this longer-term agreement would
 16 be really about the operation post Muskrat
 17 Falls implementation, full commissioning.
 18 GREENE, Q.C.:
 19 Q. Okay. I wanted to move now to the
 20 uncertainty surrounding the off-island
 21 purchases for 2018 and 2019, and the impact
 22 that that could have on customers. I'd like
 23 first to refer to page 24 of your
 24 supplemental evidence, July 20th evidence,
 25 and here we see in lines 15 to 18 that the

Page 133

1 forecast savings you've incorporated into
 2 the revenue requirement for establishing
 3 customer rates can vary significantly, and
 4 you've already given evidence to that
 5 effect, is that correct, Mr. Fagan?
 6 MR. FAGAN:
 7 A. Well, the changes – the assumption is, you
 8 know, dependent on the timing of the
 9 Labrador Island Link. So if that's further
 10 delayed, we think the number can change
 11 materially.
 12 GREENE, Q.C.:
 13 Q. Right, and I wanted to review each of the
 14 factors with you. With respect to the first
 15 one, the availability of the LIL, with
 16 respect to that risk factor there's been a
 17 significant amount of evidence already.
 18 There's been a little bit of confusion about
 19 exactly when the LIL will be available and
 20 the amount of recapture energy that will be
 21 available this fall. Fortunately, Mr.
 22 Coxworthy did review that area with you and
 23 asked for certain of the information be
 24 filed that I had planned to, but if the LIL,
 25 first from Hydro's perspective – we can go

Page 134

1 if you'd like to Mr. Leblanc's evidence back
 2 in July. He had indicated that the software
 3 that they're waiting on would not be
 4 available until the end of September, and
 5 that it would take a period of time for
 6 testing and wouldn't be available until
 7 later in September, and he did while he was
 8 still giving evidence confirm that the
 9 earliest would be October 18th. Do you
 10 recall that evidence? I can take you to it
 11 if you prefer.
 12 MR. FAGAN:
 13 A. I trust your –
 14 GREENE, Q.C.:
 15 Q. It's in the transcript, July 18th, page 117.
 16 MR. FAGAN:
 17 A. Sure.
 18 GREENE, Q.C.:
 19 Q. And I just wanted – when you talk about
 20 October 1st being available, the full
 21 capacity of a LIL for recapture, is there a
 22 confusion in the sense that it will be
 23 available from October 1st for testing
 24 purposes and will not be available until
 25 October 18th for the full amount, or do you

Page 135

1 anticipate getting the full amount earlier
 2 in the month, but it won't be officially
 3 commissioned until later in October?
 4 MR. FAGAN:
 5 A. Well, the production plan that was provided
 6 for preparation of the evidence reflected an
 7 October 1st. There was correspondence that
 8 came from Nalcor power supply indicating
 9 that they were aggressively working towards
 10 October 1st, so that's what the numbers
 11 reflect. That's what was provided to me, so
 12 that's what we've used.
 13 GREENE, Q.C.:
 14 Q. So the numbers that we already looked at
 15 earlier this morning, we don't need to go
 16 back to them, with Mr. Coxworthy, that
 17 included the full amount of recapture from
 18 October 1st?
 19 MR. FAGAN:
 20 A. Yes, it assumes the LIL being available
 21 October 1st, yeah, in-service assumption.
 22 GREENE, Q.C.:
 23 Q. And we've already seen that if the LIL is
 24 not available, it will obviously reduce the
 25 amount of savings that would be available.

Page 136

1 From a risk perspective, Hydro is protected
 2 because of the energy supply cost variance
 3 account, is that correct?
 4 MR. FAGAN:
 5 A. That's correct, so when I say "forecast
 6 risk", it was more from a customer
 7 perspective than a Hydro perspective.
 8 GREENE, Q.C.:
 9 Q. And I think with Mr. O'Brien you went
 10 through the potential impact that if the LIL
 11 is not available in 2018, we could see as
 12 much of a swing of 5 to 6 percent of
 13 increasing rates in '19 required to recover
 14 the lost savings?
 15 MR. FAGAN:
 16 A. Well, I think that the math that I went
 17 through with Mr. O'Brien was talking about
 18 if the rate increase was delayed until July
 19 1st, when we talked about the 5 to 6 percent.
 20 It depends. We had two different
 21 conversations.
 22 GREENE, Q.C.:
 23 Q. And I was going to come to that, but what I
 24 want to talk to you about is the significant
 25 amount of uncertainty there is for

Page 137

1 ratepayers as to what exactly the rate
 2 increase is that they are looking at for
 3 2018 and for 2019. Would you agree that the
 4 level of uncertainty is higher in this rate
 5 case than previous ones?
 6 MR. FAGAN:
 7 A. Certainly.
 8 GREENE, Q.C.:
 9 Q. So the swings that customers – as of today,
 10 they don't really know if they're looking at
 11 a 1.2 percent increase or it could be much
 12 more, and we're going to go through a couple
 13 of the scenarios to see the potential, so
 14 that is correct, is it, this time there's
 15 much more significant uncertainty?
 16 MR. FAGAN:
 17 A. Yes, the 1.2 – I mean, you're sitting with
 18 40 million dollar risk there, and 40 million
 19 dollars risk, if you go to a retail
 20 customer, which Newfoundland Power is about
 21 90 percent of it, then – so that's about 37
 22 million dollars, which 700 million is the
 23 revenue requirement, so you're talking about
 24 a 5 percent swing type thing.
 25 GREENE, Q.C.:

Page 138

1 Q. So that is a significant risk factor. The
 2 second one that I would like to talk about
 3 is listed there as number 3, the cost of
 4 No.6 fuel. In presenting this evidence you
 5 assumed what price for No.6 fuel?
 6 MR. FAGAN:
 7 A. \$85.55 per barrel Canadian.
 8 GREENE, Q.C.:
 9 Q. The settlement agreement reached provides
 10 that the most recent forecast of No.6 fuel
 11 oil is going to be used in establishing
 12 rates for the compliance application, is
 13 that correct?
 14 MR. FAGAN:
 15 A. That's correct.
 16 GREENE, Q.C.:
 17 Q. So the next available forecast will be the
 18 end of September that you file in October?
 19 MR. FAGAN:
 20 A. That's correct.
 21 GREENE, Q.C.:
 22 Q. Okay. Do you have any indication at this
 23 time, and I know it's only August, but where
 24 fuel price would be, higher or lower than
 25 \$85.00?

Page 139

1 MR. FAGAN:
 2 A. I haven't had any recent update provided to
 3 me.
 4 GREENE, Q.C.:
 5 Q. Okay, but in assessing the risk arising from
 6 an increase in the price of No.6 fuel or a
 7 decrease, have you done any analysis to
 8 determine the range of risk associated with
 9 the change in the price of fuel?
 10 MR. FAGAN:
 11 A. No, but in the context that's provided here
 12 is if LIL is delayed and the cost of fuel
 13 was higher, then the impacts could be more
 14 than what we talked about, because then
 15 you've got increased Holyrood fuel relative
 16 to the \$85.55. So it's more of a conceptual
 17 presentation. We haven't done any
 18 mathematical analysis on that.
 19 GREENE, Q.C.:
 20 Q. And with respect to the loss of savings if
 21 the LIL is delayed, you would have the
 22 offset of no cost having to be paid for the
 23 use of the LIL, so you would have to factor
 24 that in as well. This morning there was
 25 some discussion with you with respect to the

Page 140

1 operating and maintenance costs that were
 2 included in the forecast for the use of the
 3 LIL, and you referred to a Christensen
 4 Report, which is not on the record. Could I
 5 have an undertaking to file the report that
 6 you referred to that contains the benchmarks
 7 for O & M costs?
 8 (12:10 p.m.)
 9 MR. FAGAN:
 10 A. Sure.
 11 GREENE, Q.C.:
 12 Q. Okay. The other two factors that are listed
 13 there as impacting the risk that customers
 14 face, not Hydro, but customers, is the
 15 amount of recapture energy available, and
 16 how would you describe that risk in
 17 comparison to the other two we just talked
 18 about?
 19 MR. FAGAN:
 20 A. I think that's materially less. Well, it's
 21 materially – LIL, the timing of LIL is the
 22 key, okay. I don't think - for purposes of
 23 2018, I don't think we will have a large
 24 impact of new data centres coming into play
 25 with our current regulatory processes on the

Page 141

1 go in dealing with data centres that will –
 2 so I think for 2018, I don't think you're
 3 going to have a big impact on that for 2018.
 4 GREENE, Q.C.:
 5 Q. And the last risk factor –
 6 MR. FAGAN:
 7 A. And one last thing, Tecora, the information
 8 on Tecora as well. So, my most recent
 9 information with respect to Tecora is that
 10 they went out to the market I think, and
 11 closed, I think the end of June. So, we
 12 inquired I think around July 23rd about the
 13 status of where they are, and they indicated
 14 that they would be going to market again and
 15 closing the end of September with regard to
 16 investment. So, we don't have additional
 17 information to indicate that Tecora's load
 18 is going to be there. So, I've got no more
 19 certainty that Tecora would be impacting
 20 recapture in the—in '19 than I would have
 21 had before. Sorry.
 22 GREENE, Q.C.:
 23 Q. And the last risk factor which is the
 24 availability of purchases from other
 25 jurisdictions other than the recapture, how

Page 142

1 would you assess that with—in comparison to
 2 the other three?
 3 MR. FAGAN:
 4 A. I think that one could be material with
 5 respect to the availability to flow through
 6 Quebec if you were coming over—to come down
 7 over the LIL. If that creates a—if there's
 8 an issue there, that could have impacts on
 9 your numbers.
 10 GREENE, Q.C.:
 11 Q. So, we've just talked about four factors
 12 that could significantly impact the price
 13 that customers are going to pay, certainly
 14 in 2019. What has Hydro done to assess the
 15 level of risk and the magnitude of the
 16 swings in the rates that there could be?
 17 MR. FAGAN:
 18 A. (No audible response).
 19 GREENE, Q.C.:
 20 Q. Because right now there you are—your
 21 application says that you're looking for you
 22 are—your application says that you're
 23 looking for 1.2 percent increase as of
 24 January 1, '29 (sic.), but it's dependant on
 25

Page 143

1 everything proceeding as you've assumed and
 2 everything being approved as you have
 3 proposed.
 4 MR. FAGAN:
 5 A. I don't know if I'd quite present it that
 6 way though because we presented the rate
 7 impact reflecting the Settlement Agreement.
 8 GREENE, Q.C.:
 9 Q. Yes.
 10 MR. FAGAN:
 11 A. And then, we updated the application at the
 12 request of the Board to reflect the numbers
 13 that were provided in the Settlement
 14 Agreement.
 15 GREENE, Q.C.:
 16 Q. Yes.
 17 MR. FAGAN:
 18 A. So, from that perspective, Hydro didn't
 19 actually apply for the expected supply
 20 scenario, but certainly it's reflecting the
 21 Settlement Agreement for the expected supply
 22 scenario. The—from a –
 23 GREENE, Q.C.:
 24 Q. And that's what Hydro is looking for now,
 25

Page 144

1 isn't it, in your—when you filed your
 2 revised proposals?
 3 MR. FAGAN:
 4 A. That's the accepted approach, but I did
 5 mention earlier that I think what we would
 6 want to do is, if the Board ruled that this
 7 was an acceptable approach, using the
 8 expected supply scenario, that we would want
 9 to revisit the savings from off-island
 10 purchases for the compliance filing to avoid
 11 this potential impact if the savings didn't
 12 arrive.
 13 GREENE, Q.C.:
 14 Q. And actually, that's what I wanted to talk
 15 to you about, is from Hydro's perspective
 16 what is the appropriate regulatory approach
 17 and the regulatory process to be able to
 18 manage this risk for customers? And we'll
 19 come to talking to you about your suggestion
 20 that we leave it to the Compliance
 21 Application.
 22 MR. FAGAN:
 23 A. Yeah, well I think we should be keeping the
 24 Board informed on the status of off-island
 25

Page 145

1 purchases on an ongoing basis, I mean
 2 certainly monthly or something so they're—so
 3 everybody is aware of how this is
 4 progressing.
 5 GREENE, Q.C.:
 6 Q. Okay.
 7 MR. FAGAN:
 8 A. And by the time we have the Compliance
 9 filing, hopefully we'll have much better
 10 information.
 11 GREENE, Q.C.:
 12 Q. Okay.
 13 MR. FAGAN:
 14 A. With respect to if 18 doesn't arise, and
 15 you'd want to assess whether 19 was
 16 reasonable.
 17 GREENE, Q.C.:
 18 Q. Okay.
 19 MR. FAGAN:
 20 A. I think it's too early to say yet, right?
 21 That wouldn't etch the 1.2 percent in stone.
 22 GREENE, Q.C.:
 23 Q. No, and that's what--from a customer
 24 perspective, the level of information for
 25

Page 146

1 customers and for Hydro of course for
 2 proceeding. In terms of the amount, the
 3 potential swing in rates that we're looking
 4 at from the 1.2, we know it could be an
 5 additional 5.5 to 6 percent if there's no
 6 savings for 2018. And the 1.2 percent
 7 projected for January 1 was also based on
 8 the rates for the full year for January 1 as
 9 you just mentioned. You went through that
 10 with Mr. O'Brien.
 11 MR. FAGAN:
 12 A. Right.
 13 GREENE, Q.C.:
 14 Q. So, if the rates, final rates, are actually
 15 implemented later, that percentage recovery
 16 would also be higher? Is that correct?
 17 MR. FAGAN:
 18 A. Depending on how far delayed. If it moved
 19 much beyond the winter, it would--can be
 20 materially higher because that's when a lot
 21 of the sales are. So, the annual costs not
 22 changing because a lot of the costs are
 23 fixed. We reduced Holyrood fuel, so with
 24 this shift—so, if you went back to the 2015
 25

Page 147

1 test year, and you had—I think the average
 2 fuel cost say was about—in rates it might
 3 have been around 2.5 cents a kilowatt hour,
 4 say, okay? But now, all of a sudden, you're
 5 moving to a new test year with materially
 6 less. I think this evidence indicates might
 7 be in the neighbourhood of 1.2. So, that's
 8 a one cent per kilowatt hour swing. So, all
 9 of a sudden, you get a high portion of your
 10 costs are fixed versus variable.
 11 GREENE, Q.C.:
 12 Q. Yes.
 13 MR. FAGAN:
 14 Q. So, if you don't get those savings from off-
 15 island purchases, your costs are not really
 16 disappearing on the fixed side.
 17 GREENE, Q.C.:
 18 Q. Yes.
 19 MR. FAGAN:
 20 A. And then, your variable ones are coming
 21 back. So, you've got—it is a challenging
 22 one from a customer perspective and a rate
 23 forecasting perspective.
 24 GREENE, Q.C.:
 25

Page 148

1 Q. Yes.
 2 MR. FAGAN:
 3 A. Which is kind of--well, led it us to the
 4 initial filing which I mentioned earlier,
 5 but yes, that swing of I think, you know,
 6 five or six percent is certainly possible.
 7 GREENE, Q.C.:
 8 Q. And you mentioned that in order for rates to
 9 be implemented January 1, you would need a
 10 Board Order around October?
 11 MR. FAGAN:
 12 A. It would still be pretty tight. It would
 13 have to be early I would say.
 14 GREENE, Q.C.:
 15 Q. Early October?
 16 MR. FAGAN:
 17 A. I think so.
 18 GREENE, Q.C.:
 19 Q. And seeing the evidentiary record isn't
 20 closed here and submissions aren't—haven't
 21 been set yet, are you being your normal
 22 optimistic self, Mr. Fagan, with respect to
 23 the receipt of a Board Order in October for
 24 new for January 1?
 25

Page 149

1 MR. FAGAN:
 2 A. No, I never said I anticipated it in
 3 October. I said I—in order to have rates
 4 for January 1, I thought that’s probably
 5 around the timeline that you would need it.
 6 GREENE, Q.C.:
 7 Q. Okay. And we won’t hazard a guess as to
 8 when the date for the Compliance Filing –
 9 MR. FAGAN:
 10 A. Yes, I wasn’t trying to put pressure on the
 11 Board with regard to an end-of-September
 12 order.
 13 GREENE, Q.C.:
 14 Q. So, in looking at the potential for the
 15 impact on customers, did Hydro review
 16 alternatives or options on how to manage
 17 this? You’re protected in the sense that
 18 you have the deferral account. So, Hydro is
 19 not at financial risk, but from a customer
 20 perspective, how do you believe these
 21 material risks should be taken into account
 22 and managed from regulatory process
 23 perspective?
 24 MR. FAGAN:
 25

Page 151

1 rates versus the 1.2. So, we really hadn’t
 2 had time to sit down and come up with a
 3 range of options of things. So, but after
 4 we filed, I was thinking along the lines of—
 5 well, obviously, on the last day in
 6 preparing the evidence, was saying, well,
 7 you know, people need to understand that
 8 there’s a lot of uncertainty around this 1.2
 9 percent. That’s actually why we put the
 10 rate stability rider there as an option
 11 because of the risk associated with it, that
 12 well, if the savings did occur, then that
 13 would be great, but if they didn’t, you have
 14 that rider in place. So, you didn’t have
 15 this future recovery of costs to deal with
 16 the customers because you had the stability
 17 rider that could—those dollars could apply
 18 against it. So, it wasn’t--the stability
 19 rider wasn’t strictly associated, and I
 20 think it indicates it there, associated with
 21 trying to climb rates from Muskrat Falls.
 22 It has that benefit, but it’s also presented
 23 as a risk mitigation for customers associate
 24 with the forecast risk of off-island
 25

Page 150

1 A. Well, from –
 2 GREENE, Q.C.:
 3 Q. Your option so far is, well, we’ll updated
 4 it all in the Compliance Application, but
 5 there could be significant changes. It
 6 could be a totally different outcome based
 7 on your Compliance Filing if some of these
 8 risk factors do materialize?
 9 MR. FAGAN:
 10 A. Well, from a timing perspective, the
 11 Settlement Agreement was achieved on one
 12 Friday. We got a new production plan that
 13 same week and we filed evidence the
 14 following Friday. So, with regard to—as the
 15 numbers were being calculated, we were
 16 effectively coming up with the rates and the
 17 proposals reflect a Settlement Agreement.
 18 GREENE, Q.C.:
 19 Q. Yes.
 20 MR. FAGAN:
 21 A. We really didn’t have time to sit down and
 22 do much scenario analysis along the lines of
 23 what options would be to deal with the
 24 customer or the risk of variability in the
 25

Page 152

1 purchases.
 2 GREENE, Q.C.:
 3 Q. I guess one of the difficulties with the
 4 rider is given the degree of uncertainty,
 5 it’s very difficult for—to determine what
 6 the appropriate amount of a rider would be
 7 when there’s so many very high-risk factors.
 8 Would you agree with that?
 9 MR. FAGAN:
 10 A. I agree.
 11 GREENE, Q.C.:
 12 Q. Okay.
 13 MR. FAGAN:
 14 A. And that actually gets right back to this
 15 GRA from the start with regards to what are
 16 our supply costs going to be in the test
 17 year for rates? I think it’s the same issue
 18 we’ve been dealing with since we started
 19 preparation of our evidence.
 20 GREENE, Q.C.:
 21 Q. Yes. So, from a timing perspective, and
 22 come the end of September you will have an
 23 updated fuel price, is that correct?
 24 MR. FAGAN:
 25

Page 153

1 A. Yes.

2 GREENE, Q.C.:

3 Q. Come the end of September, you should have

4 some better idea as to whether the LIL will

5 actually make October 1, is that correct?

6 MR. FAGAN:

7 A. Could you just repeat that?

8 GREENE, Q.C.:

9 Q. By the end of September when you have the

10 updated fuel price –

11 MR. FAGAN:

12 A. Oh, yes. Oh, yes, yeah. Yeah, I just

13 misheard your -

14 GREENE, Q.C.:

15 Q. Presumably, we'll be in a better position to

16 know about the in-service date of the LIL?

17 MR. FAGAN:

18 A. Oh, one would hope so, yes.

19 GREENE, Q.C.:

20 Q. We may have some more information with

21 respect to the availability of recapture and

22 purchases from other island—from other

23 jurisdictions. Would it be feasible for

24 Hydro to file an update prior to the Board's

25

Page 154

1 Order in the Compliance Application so all

2 the parties could see the assessment as of

3 that point with respect to the forecast

4 savings and the impact of number 6 fuel?

5 MR. FAGAN:

6 A. So, it incorporates our fuel price

7 projection update with those other items. I

8 think that would be a good idea.

9 GREENE, Q.C.:

10 Q. And that would be feasible in terms of a

11 timing perspective, but how early would that

12 be possible?

13 MR. FAGAN:

14 A. Well, I think the requirement is to file

15 within ten days on the fuel price protection

16 of receiving the forecast, ten working days,

17 something like that. But I'm—we'd certainly

18 have a better—we should have much better

19 information for 2018 by then. So, I think

20 that's certainly practical.

21 GREENE, Q.C.:

22 Q. Okay. So, that would be possible for Hydro

23 to do in—by mid October?

24 MR. FAGAN:

25

Page 155

1 A. Oh, certainly.

2 GREENE, Q.C.:

3 Q. Okay. Now, you also mentioned as another

4 possible mitigation measure a quarterly

5 true-up. I took that to mean more for 2019

6 that once the rates are set, you would—

7 you're still—uncertainty with respect

8 particularly the off-island purchases and

9 the potential savings. Is that correct? Do

10 you see that more as a mechanism once the

11 rates are set?

12 MR. FAGAN:

13 A. Yes.

14 GREENE, Q.C.:

15 Q. Okay.

16 MR. FAGAN:

17 A. Although, you know, it's kind of a—hadn't

18 really sat down and analyzed it, but I mean,

19 it's—when you're into a period when you're

20 purchasing, effectively purchasing off a

21 market and depending on a lot of external

22 factors, no. In this case, I think that may

23 not be required if when we get our update in

24 the fall of '18, that things are in pretty

25

Page 156

1 good shape with regard to LIL, and so, we're

2 more comfortable with the numbers, but I

3 think at that—if we're not at that point,

4 we—you might want to be considering how do

5 we deal with it? If things are not good for

6 the remainder of '18, I think then you want

7 to look at '19. I think it's probably at

8 this stage, premature to look at anything

9 with respect to '19 until we've got better

10 information on where '18 is.

11 GREENE, Q.C.:

12 Q. And do you foresee any difficulty in Hydro

13 reporting on a monthly basis in 2019 with

14 respect to purchases and potential savings

15 on a monthly basis?

16 MR. FAGAN:

17 A. No.

18 GREENE, Q.C.:

19 Q. At this time is Hydro considering reviewing

20 any other options to look at the unfolding

21 situation in 2018 and '19 about the

22 potential savings and if they don't

23 materialize, other than your filing of the

24 Compliance Application where you would

25

Page 157

1 update?

2 MR. FAGAN:

3 A. None that I've thought of yet.

4 GREENE, Q.C.:

5 Q. Okay. Moving to another topic, as you are

6 aware Newfoundland Power has filed a rate

7 case, and they are asking the Board to

8 approve an increase in their return on

9 equity of 100 bases points to from 8½

10 percent to 9½ percent. If the Board makes

11 that determination prior to Hydro's rates

12 becoming final for 2019, has Hydro

13 determined what impact that would have on

14 its revenue requirement if there is that

15 increase in the ROE which flows through to

16 Newfoundland Hydro?

17 MR. FAGAN:

18 A. So, Newfoundland Power's request is for

19 rates to be implemented in April '19.

20 GREENE, Q.C.:

21 Q. Yes.

22 MR. FAGAN:

23 A. I think based on '19 and '20 test year. So,

24 a one percent return, would be slightly more

25

Page 158

1 than four million dollars revenue

2 requirement I think for Hydro.

3 GREENE, Q.C.:

4 Q. Which would be included in your Compliance

5 Application if the Order is before your

6 Compliance Application?

7 MR. FAGAN:

8 A. Yeah, I think that would be fair. I mean,

9 it might be tight. You know, the timelines

10 are pretty tight on all this, but yeah. But

11 certainly, if the Order was out, that's what

12 we would use.

13 GREENE, Q.C.:

14 Q. Okay. Thank you, Mr. Fagan. Those are all

15 of my questions.

16 MR. FAGAN:

17 A. Okay.

18 CHAIR:

19 Q. Thank you, Ms. Greene. Back to Hydro for

20 any redirect.

21 MR. TEMPLETON:

22 Q. Thank you. No, no direct.

23 CHAIR:

24 Q. No redirect, thank you.

25

Page 159

1 MR. OXFORD:

2 Q. No questions.

3 CHAIR:

4 Q. And I have no questions.

5 MR. FAGAN:

6 A. Okay.

7 CHAIR:

8 Q. Thank you, Mr. Fagan. Okay, so, we've got

9 to figure out where we are now.

10 MS. GLYNN:

11 Q. So, Madam Chair, there are three I guess

12 outstanding issues that I could identify.

13 CHAIR:

14 Q. Okay.

15 MS. GLYNN:

16 Q. One is the public presentation dates. We

17 have at least two presenters that we have

18 been contacted by. I think one may sit as a

19 panel, and Ms. Blundon, the Board secretary,

20 is attempting to schedule those for next

21 Thursday, August 16th. And we will confirm

22 that with the parties as soon as we have

23 confirmation from the public presenters. We

24 do have some outstanding issues that Hydro

25

Page 160

1 is currently working on with the Labrador

2 Interconnected Group and with Iron Ore

3 Company. I think that's as much as I can

4 say on that at this point, that there is

5 still ongoing work happening and that we can

6 address those issues hopefully once they are

7 settled appropriately with the parties or if

8 not, whether further steps are required from

9 the Board and the Panel. The last

10 outstanding issue is the filing of some

11 further information, and whether possibly

12 witnesses may need to be recalled, and I

13 would ask counsel for Hydro if they have

14 anything to add on that particular issue?

15 MR. YOUNG:

16 Q. Thanks, Ms. Glynn. Madam Chair, we are, as

17 I reported the last time, in the process of

18 trying to finalize those agreements, and

19 there's been a fair bit said about them, so

20 I think people have a general idea of what's

21 coming. I won't pretend it's not going to

22 be somewhat complex and it's going to take

23 an opportunity for people to review them and

24 perhaps ask questions about them. I'll let

25

Page 161

1 them make that decision. And we might
 2 consider in fact we've had some preliminary
 3 discussions as to whether or not--to the
 4 extent that these aren't self-explanatory.
 5 Some sort of explanation, a viva voce or a
 6 written document might be useful. Timing is
 7 a little bit up in the air. You know, it's
 8 a file that's been worked on right now. I
 9 attended a meeting yesterday afternoon. I
 10 would love to be able to guarantee a filing
 11 date by next week, but I'm afraid I can't
 12 give that guarantee. It's a target. It
 13 might be optimistic, but that is what we're
 14 aiming towards.
 15 CHAIR:
 16 Q. And there are some clearly from yesterday
 17 and today, but outstanding undertakings to
 18 be filed as well.
 19 MR. YOUNG:
 20 Q. There are indeed.
 21 CHAIR:
 22 Q. Yes.
 23 MR. YOUNG:
 24 Q. And you know, some of the one that have been
 25

Page 162

1 outstanding for a little while, and of
 2 course new ones just as a few minutes ago.
 3 CHAIR:
 4 Q. Sure.
 5 MR. YOUNG:
 6 Q. So, yes, indeed.
 7 CHAIR:
 8 Q. Okay. All right, well I guess we'll or
 9 counsel will be in contact with you with
 10 respect to scheduling.
 11 MR. YOUNG:
 12 Q. Yes.
 13 MS. GLYNN:
 14 Q. And perhaps hopefully we would have some
 15 better information by the time we come back
 16 for the public presentations.
 17 CHAIR:
 18 Q. Sure. And I guess from our perspective, I
 19 would be remiss if I didn't extend our
 20 appreciation to Ms. Massie. You probably
 21 had one of the hardest jobs in the room over
 22 the last number of months in particular, but
 23 thank you very much. Excellent job and
 24 you've contributed to the efficiency of the
 25

Page 163

1 Hearing greatly.
 2 MS. MASSIE:
 3 Q. I appreciate that. Thank you.
 4 CHAIR:
 5 Q. Thank you so much. Okay, well, I guess
 6 we're adjourned at the call of the Chair,
 7 unless anyone else has anything else to add.
 8 No? Thank you so much.
 9 Upon conclusion at 12:31 p.m.
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

Page 164

CERTIFICATE

I, Judy Moss, hereby certify that the foregoing is a true and correct transcript in the matter of Newfoundland and Labrador Hydro 2017 General Rate Application hearing heard on the 7th day of August, 2018 before the Board of Commissioners of Public Utilities, 120 Torbay Road, St. John's, Newfoundland and Labrador and was transcribed by me to the best of my ability by means of a sound apparatus.

Dated at St. John's, Newfoundland and Labrador this 7th day of August, 2018

Judy Moss

A				
<p>Ability - 51:14, 76:10, 77:16, 103:1</p> <p>Able - 17:15, 23:19, 75:23, 79:22, 83:13, 85:17, 90:25, 118:14, 144:17, 161:10</p> <p>Above - 22:6, 22:18, 107:21</p> <p>Ac - 21:10, 100:15</p> <p>Accept - 54:15, 96:19</p> <p>Acceptable - 144:7</p> <p>Acceptance - 60:5</p> <p>Accepted - 144:4</p> <p>Access - 88:21, 116:9, 116:22</p> <p>Accessible - 15:17</p> <p>Account - 32:22, 32:24, 33:2, 33:4, 48:9, 61:17, 74:20, 88:10, 127:22, 128:11, 129:9, 129:12, 136:3, 149:18, 149:21</p> <p>Accrued - 6:12, 27:3</p> <p>Accruing - 59:23</p> <p>Accumulate - 128:12, 129:15</p> <p>Achievable - 91:13, 118:1</p> <p>Achieve - 28:13, 48:13, 89:9, 90:5</p> <p>Achieved - 3:22, 3:23, 25:19, 90:9, 90:15, 90:20, 150:11</p> <p>Acknowledge - 73:4</p> <p>Act - 35:25</p> <p>Action - 51:21</p> <p>Actively - 46:7</p> <p>Activities - 26:23</p> <p>Activity - 45:15, 46:1</p> <p>Acts - 47:12</p> <p>Actual - 33:5, 73:24</p> <p>Adapters - 63:14</p> <p>Add - 71:4, 94:7, 160:14, 163:7</p> <p>Addition - 86:6</p> <p>Address - 160:6</p> <p>Addressed - 107:2</p>	<p>4, 107:25</p> <p>Adjourned - 163:6</p> <p>Administration - 14:21</p> <p>Administrative - 104:4, 114:17</p> <p>Administratively - 104:1</p> <p>Admission - 33:4</p> <p>Admittedly - 2:22</p> <p>Adopters - 46:2</p> <p>Advance - 90:25</p> <p>Advantage - 86:8, 129:3</p> <p>Advised - 69:13, 90:23</p> <p>Advocated - 39:15</p> <p>Affairs - 2:17, 5:6, 103:11</p> <p>Afoot - 41:12</p> <p>Afraid - 161:11</p> <p>Afternoon - 161:9</p> <p>Against - 151:18</p> <p>Age - 96:14</p> <p>Agencies - 14:10</p> <p>Agency - 16:21</p> <p>Aggressive - 90:22</p> <p>Aggressively - 135:9</p> <p>Aging - 63:18</p> <p>Agree - 17:20, 24:14, 27:12, 41:14, 45:13, 45:22, 46:6, 51:21, 52:13, 57:8, 58:10, 61:24, 62:11, 62:15, 67:17, 69:8, 80:2, 102:2, 114:16, 137:3, 152:8, 152:10</p> <p>Agreement - 3:6, 7:14, 25:13, 25:23, 26:2, 26:3, 27:1, 28:18, 48:5, 61:4, 72:4, 109:5, 121:24, 122:14, 122:15, 125:13, 125:14, 126:24, 127:9, 128:9, 129:14, 132:15, 138:9, 143:7, 143:14, 143:21, 150:11, 150:17</p> <p>Agreements - 15:22, 29:17, 125:5, 125:9, 125:19, 125:21, 126:1,</p>	<p>160:18</p> <p>Ahead - 10:3, 55:3</p> <p>Aiming - 90:21, 161:14</p> <p>Air - 161:7</p> <p>Algorithm - 63:6</p> <p>Alia - 29:18</p> <p>Allocated - 123:13</p> <p>Allocation - 106:17, 121:14, 121:18, 123:4, 123:16</p> <p>Allocator - 110:6</p> <p>Allow - 1:25, 2:24, 77:23</p> <p>Allows - 116:21</p> <p>Alternate - 63:14</p> <p>Alternatives - 149:16</p> <p>Amenable - 122:13</p> <p>American - 122:4</p> <p>Among - 16:23</p> <p>Amortize - 108:9</p> <p>Amount - 29:6, 68:19, 71:5, 73:24, 85:18, 86:14, 105:7, 108:7, 108:10, 133:17, 133:20, 134:25, 135:1, 135:17, 135:25, 136:25, 140:15, 146:2, 152:6</p> <p>Amounts - 30:1, 85:13, 85:25</p> <p>Analysed - 34:23</p> <p>Analysis - 8:9, 8:14, 22:14, 23:12, 34:22, 35:1, 124:15, 139:7, 139:18, 150:22</p> <p>Analyze - 121:10</p> <p>Analyzed - 155:18</p> <p>Announcement - 41:7, 121:8</p> <p>Annual - 50:9, 53:12, 94:2, 146:21</p> <p>Anticipate - 21:6, 128:3, 129:20, 130:6, 135:1</p> <p>Anticipated - 14:16, 132:12, 149:2</p> <p>Anyway - 60:8, 111:4, 124:22</p> <p>Apologize - 95:2</p> <p>Appear - 52:17</p> <p>Appears - 64:18</p> <p>Application - 26:4,</p>	<p>30:23, 54:4, 54:5, 54:24, 55:7, 55:20, 56:4, 57:23, 57:24, 58:10, 59:18, 60:22, 107:25, 108:1, 110:11, 110:15, 110:21, 111:19, 115:22, 117:17, 118:2, 118:16, 129:7, 130:1, 131:19, 138:12, 142:21, 142:22, 143:11, 144:21, 150:4, 154:1, 156:24, 158:5, 158:6</p> <p>Applications - 61:13, 126:22, 131:15</p> <p>Apply - 97:10, 143:19, 151:17</p> <p>Applying - 43:20, 97:1</p> <p>Appreciate - 163:3</p> <p>Appreciation - 162:20</p> <p>Approach - 3:8, 43:20, 47:23, 48:2, 57:7, 64:4, 96:19, 144:4, 144:7, 144:16</p> <p>Approached - 1:21</p> <p>Approaches - 110:3</p> <p>Appropriate - 51:20, 74:21, 122:14, 144:16, 152:6</p> <p>Appropriately - 160:7</p> <p>Approval - 110:22, 116:9, 129:13</p> <p>Approve - 157:8</p> <p>Approved - 98:24, 116:6, 116:21, 128:10, 143:2</p> <p>Approximately - 43:13, 43:15, 43:19, 43:23</p> <p>April - 32:2, 32:4, 58:20, 76:13, 76:25, 157:19</p> <p>Area - 133:22</p> <p>Areas - 63:15</p> <p>Aren't - 10:8, 148:20, 161:4</p> <p>Argue - 54:19</p> <p>Argument - 80:9, 84:19</p>	<p>Arise - 145:14</p> <p>Arising - 139:5</p> <p>Arm - 3:24, 7:18</p> <p>Arrive - 144:12</p> <p>Aspect - 5:11</p> <p>Assess - 104:5, 142:1, 142:14, 145:15</p> <p>Assessing - 103:15, 139:5</p> <p>Assessment - 64:15, 64:18, 154:2</p> <p>Asset - 96:4, 96:22, 97:14, 101:16, 102:19, 120:23, 120:24</p> <p>Assets - 21:24, 22:4, 48:12, 59:23, 60:2, 96:14, 96:18, 97:23, 99:6, 102:16</p> <p>Assigned - 96:21, 97:5</p> <p>Assigning - 97:13</p> <p>Associate - 151:23</p> <p>Associated - 1:18, 26:2, 26:22, 45:14, 73:23, 139:8, 151:11, 151:19, 151:20</p> <p>Assumed - 35:9, 138:5, 143:1</p> <p>Assumption - 15:19, 15:23, 66:8, 67:6, 133:7, 135:21</p> <p>Assumptions - 35:10, 55:18, 113:11</p> <p>Assure - 13:1</p> <p>Assured - 4:16, 12:13, 14:2</p> <p>Atlantic - 16:12, 16:20, 16:23, 17:1, 17:2</p> <p>Attachment - 10:1, 10:2, 10:6, 72:25</p> <p>Attempt - 94:5</p> <p>Attempting - 159:20</p> <p>Attended - 161:9</p> <p>Attention - 68:16</p> <p>Attract - 38:14</p> <p>Attracted - 38:18</p> <p>Attributes - 101:3</p> <p>Audit - 4:3</p> <p>Auditors - 3:18</p> <p>August - 75:7, 81:7, 81:15, 104:9, 106:7, 138:23,</p>

<p>159:21 Author - 16:17 Authority - 5:16 Automatically - 57:13 Availability - 133:15, 141:24, 142:5, 153:21 Available - 3:18, 4:1, 5:24, 6:14, 12:17, 15:25, 18:15, 22:13, 22:21, 23:11, 25:1, 35:1, 36:20, 68:20, 68:22, 69:15, 71:14, 72:11, 73:12, 76:12, 78:6, 79:7, 79:8, 81:9, 81:17, 86:22, 86:23, 88:20, 98:16, 99:21, 128:17, 131:24, 133:19, 133:21, 134:4, 134:6, 134:20, 134:23, 134:24, 135:20, 135:24, 135:25, 136:11, 138:17, 140:15 Avenues - 13:19 Average - 15:9, 37:11, 37:14, 43:19, 43:23, 56:12, 67:4, 67:10, 67:11, 87:17, 87:20, 88:15, 147:1 Avoid - 144:10 Aware - 8:15, 12:19, 14:9, 32:10, 42:1, 42:8, 117:15, 145:3, 157:6 Awkward - 23:14</p>	<p>152:14, 158:19, 162:15 Backup - 31:7 Balance - 28:20, 30:4, 66:23, 128:11 Balancing - 41:2 Bargain - 10:25 Barrel - 138:7 Barriers - 16:22 Base - 101:16 Baseboard - 50:22, 50:24, 51:9 Based - 5:1, 5:7, 5:15, 22:1, 22:14, 24:25, 33:16, 34:17, 35:10, 37:13, 40:24, 41:1, 50:23, 51:24, 53:12, 59:8, 59:16, 60:11, 64:17, 65:7, 69:17, 79:13, 91:6, 95:21, 97:13, 98:1, 98:5, 98:10, 100:3, 103:8, 109:24, 119:24, 123:25, 146:7, 150:6, 157:23 Bases - 157:9 Basic - 45:6 Basing - 46:4, 65:6 Basis - 55:21, 68:22, 71:1, 145:1, 156:13, 156:15 Bay - 38:5 Bear - 122:18 Became - 98:16 Become - 65:5, 104:23 Becomes - 12:17 Becoming - 157:12 Behind - 41:14, 95:23 Believed - 61:2 Believes - 125:10 Below - 14:15, 105:2 Benchmarking - 20:18, 22:1, 100:13 Benchmarks - 140:6 Benefit - 3:13, 17:11, 66:16, 130:24, 151:22 Benefits - 2:13, 3:9, 3:19, 6:11, 6:15, 17:1, 61:21, 66:17, 127:10,</p>	<p>129:4 Bi - 63:1, 63:3 Bid - 14:14 Big - 84:4, 85:11, 141:3 Biggest - 120:7, 121:4, 121:19, 122:7 Bilateral - 15:22 Bill - 50:21, 82:7 Billings - 43:12 Bills - 41:10 Bit - 7:4, 10:13, 13:3, 72:19, 87:16, 133:18, 160:19, 161:7 Block - 38:7, 38:10, 38:11 Blundon - 159:19 Board - 2:19, 3:1, 3:7, 3:10, 3:18, 4:2, 4:19, 5:1, 5:4, 5:5, 5:7, 5:10, 5:13, 5:15, 5:16, 16:19, 17:8, 25:15, 26:4, 26:5, 37:2, 42:3, 59:7, 59:10, 59:13, 59:16, 60:11, 91:25, 98:22, 98:24, 99:2, 108:20, 108:21, 110:20, 116:5, 116:18, 117:1, 117:18, 118:12, 119:18, 120:16, 122:22, 126:2, 126:22, 127:22, 128:11, 128:13, 128:15, 129:18, 131:16, 131:17, 131:18, 143:12, 144:6, 144:24, 148:10, 148:23, 149:11, 157:7, 157:10, 159:19, 160:9 Board's - 4:22, 153:24 Boilers - 33:21 Both - 80:2, 84:1, 104:3, 110:25, 112:4 Bottom - 74:18 Bow - 124:3 Bowen - 97:7 Branch - 2:10, 2:11 Brand - 18:12 Break - 82:17,</p>	<p>83:2, 100:19, 101:19, 101:25, 105:16, 105:18, 105:20 Breakdown - 82:1, 82:24, 84:5, 85:3, 99:4, 102:5 Breakdowns - 101:22 Breaking - 100:14, 101:13 Bridge - 125:10 Bridged - 125:18 Bridging - 125:21, 126:1 Brings - 19:13 Broadly - 78:14, 90:7 Broke - 106:4 Brook - 74:18, 121:22, 121:25 Brought - 14:17, 19:19, 52:4, 68:16, 70:7, 70:8, 77:24, 84:14, 84:16, 88:14, 122:17 Browne - 1:5, 1:6, 1:10, 1:11, 2:16, 4:5, 5:21, 6:5, 6:20, 6:25, 7:5, 7:21, 8:4, 8:8, 8:23, 9:18, 9:24, 10:16, 11:10, 11:17, 11:22, 12:4, 12:12, 12:22, 14:3, 14:20, 16:8, 17:5, 17:17, 17:21, 18:2, 18:3, 18:9, 18:23, 20:3, 20:10, 21:15, 21:19, 22:22, 23:4, 23:13, 24:15, 25:2, 25:8, 26:9, 26:18, 27:5, 27:13, 27:19, 29:1, 30:17, 31:24, 33:25, 36:4, 36:12, 37:24, 39:9, 39:14, 41:5, 41:24, 43:1, 44:13, 46:17, 47:4, 47:15, 48:19, 49:10, 49:14, 49:19, 49:25, 50:4, 50:8, 50:17, 52:14, 53:2, 53:6, 54:17, 56:17, 57:22, 58:5, 59:5, 60:15, 61:9, 62:5, 63:3, 64:8, 64:12, 65:19, 67:19, 67:23, 68:3,</p>	<p>68:6, 88:14, 100:3 Brunswick - 10:18, 10:21, 13:17, 14:24 Buck - 12:15 Budget - 19:12, 19:20 Budgeted - 96:23 Build - 34:5, 57:17, 84:1 Built - 34:15, 50:11, 55:14 Bullet - 13:3, 94:2 Bungalow - 50:13 Burden - 64:21 Business - 2:4, 4:25 Busy - 108:24 Buy - 13:12, 13:15, 13:17, 86:10, 86:12 Buying - 13:8</p> <div style="border: 1px solid black; text-align: center; padding: 2px;">C</div> <p>CA - 1:12, 9:25, 10:1, 43:2, 44:14, 68:14, 75:2, 88:15 Calculated - 150:15 Calculating - 97:18, 98:13 Calendar - 108:24, 117:6 Call - 34:21, 39:3, 73:21, 77:6, 79:14, 113:12, 125:6, 125:20, 163:6 Called - 44:3, 122:19 Can - 1:5, 2:20, 3:19, 4:16, 5:15, 6:15, 6:18, 8:12, 9:25, 10:12, 12:13, 13:14, 13:16, 13:17, 13:23, 14:1, 15:20, 17:7, 17:22, 21:20, 24:9, 27:22, 29:3, 30:11, 30:13, 32:3, 32:18, 33:11, 37:17, 37:19, 37:21, 37:22, 38:21, 40:20, 41:4, 41:12, 43:2, 45:4, 45:18, 46:22, 46:24, 47:25, 49:1, 52:20, 53:8, 54:22, 63:21, 66:8, 68:14, 69:2, 70:7, 70:8, 70:21, 72:18,</p>
--	--	--	---	--

<p>78:17, 80:9, 80:14, 80:19, 84:4, 86:2, 86:11, 90:24, 92:7, 94:20, 95:14, 96:19, 96:21, 105:7, 105:10, 106:6, 108:14, 109:3, 121:1, 129:3, 131:18, 133:3, 133:10, 133:25, 134:10, 146:19, 160:3, 160:5</p> <p>Canada - 16:20, 17:1</p> <p>Canadian - 16:11, 138:7</p> <p>Canadians - 17:2</p> <p>Can't - 29:14, 30:2, 57:12, 127:15, 161:11</p> <p>Capable - 2:12</p> <p>Capacity - 15:19, 29:21, 30:5, 30:7, 30:10, 30:15, 30:21, 31:1, 31:8, 31:13, 31:14, 31:18, 31:21, 36:18, 39:1, 40:4, 40:9, 62:14, 62:20, 66:4, 66:5, 66:9, 66:10, 88:20, 112:18, 112:23, 113:13, 134:21</p> <p>Capital - 94:16, 95:22, 97:2, 100:10</p> <p>Carried - 121:21</p> <p>Carry - 79:23</p> <p>Caryn - 10:12</p> <p>Case - 4:21, 8:22, 12:8, 44:10, 58:17, 58:22, 137:5, 155:22, 157:7</p> <p>Cases - 110:18, 110:19</p> <p>Category - 78:14</p> <p>Cause - 35:24, 35:25, 56:9, 64:23</p> <p>Causing - 45:15</p> <p>Caveats - 22:10, 22:20</p> <p>Cent - 37:6, 147:8</p> <p>Centres - 140:24, 141:1</p> <p>Cents - 15:11, 15:13, 15:14, 15:16, 32:9, 33:15,</p>	<p>33:18, 35:5, 35:18, 35:24, 37:8, 42:8, 43:7, 44:8, 50:19, 51:9, 51:12, 53:15, 53:22, 53:23, 53:24, 56:7, 56:8, 58:1, 58:12, 65:14, 65:15, 65:16, 65:20, 87:18, 88:16, 88:19, 89:10, 147:3</p> <p>Certain - 4:23, 71:5, 97:24, 103:25, 115:24, 133:23</p> <p>Certainly - 12:19, 19:15, 19:22, 20:1, 52:5, 52:11, 82:25, 100:14, 114:13, 127:6, 128:10, 137:7, 142:13, 143:20, 145:2, 148:6, 154:17, 154:20, 155:1, 158:11</p> <p>Certainty - 13:10, 16:5, 59:4, 141:19</p> <p>CF - 73:7, 74:7</p> <p>CHAIR - 1:2, 1:7, 68:5, 68:9, 105:19, 105:21, 105:25, 106:3, 126:12, 158:18, 158:23, 159:3, 159:7, 159:11, 159:13, 160:16, 161:15, 161:21, 162:3, 162:7, 162:17, 163:4, 163:6</p> <p>Challenge - 46:4</p> <p>Challenging - 147:21</p> <p>Chamber - 4:10, 4:11</p> <p>Chance - 115:18</p> <p>Change - 34:19, 34:24, 35:4, 37:3, 37:7, 52:8, 66:19, 133:10, 139:9</p> <p>Changed - 35:8, 44:9, 73:2, 123:2</p> <p>Changes - 37:6, 47:12, 52:3, 52:7, 52:12, 92:10, 103:6, 103:7, 133:7, 150:5</p> <p>Changing - 132:8,</p>	<p>146:22</p> <p>Charge - 10:24, 96:21, 97:6</p> <p>Charged - 25:10, 26:12, 26:15, 26:19, 45:5</p> <p>Charges - 26:22, 97:10</p> <p>Charging - 23:18</p> <p>Chart - 14:21</p> <p>Cheap - 87:13</p> <p>Cheaper - 13:22, 15:20, 51:1, 51:5, 73:17, 87:12</p> <p>Cheapest - 27:8, 27:16</p> <p>Check - 83:19, 83:23</p> <p>Checked - 52:24</p> <p>Choice - 121:1</p> <p>Christensen - 21:1, 22:7, 22:19, 23:7, 101:3, 140:3</p> <p>Christensen's - 10 0:1, 100:10, 100:24, 101:18, 102:8</p> <p>Churchill - 48:24</p> <p>Circulated - 127:5</p> <p>Circumstances - 7 9:10</p> <p>Climb - 151:21</p> <p>Close - 76:2</p> <p>Closed - 141:11, 148:20</p> <p>Closer - 42:17, 57:11, 89:13</p> <p>Closing - 141:15</p> <p>Co - 73:7, 74:7</p> <p>Cold - 63:21</p> <p>Coldest - 31:6</p> <p>Colleague - 32:19</p> <p>Column - 15:8</p> <p>Combination - 78:5, 103:24</p> <p>Come - 6:16, 21:2, 52:5, 52:17, 53:8, 54:4, 54:9, 58:1, 60:14, 82:3, 82:5, 82:10, 85:1, 96:17, 101:1, 101:7, 102:17, 107:23, 117:12, 123:22, 136:23, 142:6, 144:19, 151:2, 152:22, 153:3, 162:15</p>	<p>Comes - 29:8, 50:23</p> <p>Comfortable - 100:11, 156:2</p> <p>Coming - 6:9, 16:6, 18:11, 33:9, 44:21, 56:6, 59:10, 71:21, 72:5, 75:13, 82:2, 82:3, 83:9, 95:22, 100:21, 124:25, 129:6, 140:24, 142:6, 147:20, 150:16, 160:21</p> <p>Commence - 33:14, 77:15</p> <p>Comment - 106:9</p> <p>Commentary - 105 :3</p> <p>Comments - 65:12, 65:24</p> <p>Commission - 22:2 4</p> <p>Commissioned - 3 2:14, 47:17, 47:22, 85:15, 135:3</p> <p>Commissioners - 1:8</p> <p>Commissioning - 26:24, 73:15, 132:17</p> <p>Common - 63:16</p> <p>Company - 4:25, 23:15, 160:3</p> <p>Comparability - 9:16, 34:13</p> <p>Comparable - 52:2, 52:6</p> <p>Comparators - 51:11, 53:24</p> <p>Compare - 75:1</p> <p>Compared - 98:18</p> <p>Comparison - 50:9, 53:11, 140:17, 142:1</p> <p>Comparisons - 20:11, 20:23</p> <p>Competing - 34:13</p> <p>Competition - 14:1</p> <p>Competitive - 52:1 1</p> <p>Complete - 120:3</p> <p>Completed - 34:23, 113:6, 126:4</p> <p>Completing - 41:2 1</p> <p>Completion - 57:4</p> <p>Complex - 118:9,</p>	<p>124:14, 160:22</p> <p>Compliance - 92:2, 92:10, 107:25, 108:1, 117:17, 117:21, 118:11, 118:16, 119:12, 128:15, 138:12, 144:10, 144:20, 145:8, 149:8, 150:4, 150:7, 154:1, 156:24, 158:4, 158:6</p> <p>Component - 102:5</p> <p>Conceptual - 139:1 6</p> <p>Conceptually - 39:20</p> <p>Concern - 46:6, 56:1, 60:19</p> <p>Concerns - 56:13, 63:11, 83:23, 84:9</p> <p>Concert - 119:10</p> <p>Concluded - 116:5</p> <p>Concludes - 56:18</p> <p>Concluding - 56:2 3, 56:24, 64:13</p> <p>Conclusion - 56:21, 116:7, 163:9</p> <p>Conclusions - 52:4, 65:12</p> <p>Concurrently - 114 :14</p> <p>Conducted - 54:11</p> <p>Conduit - 2:18, 8:11, 17:7</p> <p>Confidence - 91:3</p> <p>Confidential - 83:1, 83:2</p> <p>Confidentiality - 3:21, 82:24, 83:24, 84:9, 85:21</p> <p>Confirm - 134:8, 159:21</p> <p>Confirmation - 130 :18, 159:23</p> <p>Confirmed - 124:2 0</p> <p>Confused - 44:21</p> <p>Confusion - 133:1 8, 134:22</p> <p>Conservation - 43:4</p> <p>Conserved - 66:14</p> <p>Consider - 67:16, 110:20, 161:2</p> <p>Consideration - 16</p>
--	--	--	---	--

<p>:10 Considered - 72:3, 108:15 Considering - 25:15, 37:1, 156:4, 156:19 Consistent - 59:20, 65:9, 94:3, 99:13, 99:24, 101:2 Constraints - 15:19, 88:21 Consultant - 119:10 Consultants - 20:24, 109:19 Consumer - 61:17 Consumers - 2:22, 4:16, 13:1, 27:7, 33:16, 57:14, 61:22, 64:24 Consuming - 61:20 Consumption - 34:19, 34:24, 43:11, 45:5, 64:24, 65:3 Contact - 111:11, 162:9 Contacted - 159:18 Contacting - 23:2 Contains - 140:6 Contentious - 122:16 Context - 71:2, 71:8, 73:5, 94:9, 100:2, 103:9, 103:10, 139:11 Continue - 92:6, 95:8 Continues - 65:23 Contract - 1:17, 7:13, 8:3, 9:13, 77:16, 77:23, 78:3 Contracted - 77:14 Contracting - 27:9 Contracts - 86:7, 88:2 Contributed - 26:7, 162:24 Contribution - 127:24 Conversations - 136:21 Converting - 35:13 Convertor - 100:17, 100:19, 101:14, 101:20, 102:5, 121:23</p>	<p>Convertors - 101:16 Core - 61:15 Corner - 121:22, 121:24 Correctly - 66:19, 69:4, 95:3, 130:14 Correspondence - 135:7 Cost - 1:14, 2:22, 10:19, 20:11, 37:10, 37:11, 37:20, 38:9, 39:25, 40:5, 40:8, 40:9, 40:15, 40:20, 41:15, 47:11, 48:12, 48:17, 50:25, 53:15, 57:18, 59:9, 60:23, 61:15, 62:16, 66:21, 67:4, 67:8, 67:15, 73:16, 73:19, 88:16, 93:13, 96:23, 98:23, 98:24, 104:17, 109:4, 109:17, 110:5, 110:6, 111:18, 111:23, 112:2, 112:5, 112:8, 112:22, 113:10, 113:19, 114:12, 115:3, 115:12, 115:23, 118:5, 118:18, 119:6, 119:8, 119:9, 119:16, 120:1, 120:13, 121:5, 121:9, 121:14, 121:20, 122:15, 122:23, 122:24, 123:2, 123:8, 123:10, 123:14, 124:2, 136:2, 138:3, 139:12, 139:22, 147:2 Costing - 28:8, 44:15 Costs - 1:18, 10:22, 10:23, 14:5, 14:8, 14:10, 14:11, 14:15, 17:25, 18:18, 18:19, 20:9, 20:12, 26:1, 27:25, 38:13, 40:4, 40:23, 40:25, 42:13, 47:21, 50:10, 53:12, 56:2, 57:12, 58:14, 60:13, 67:1,</p>	<p>87:7, 87:20, 89:16, 89:20, 94:3, 96:15, 96:21, 96:23, 97:20, 98:17, 99:1, 99:2, 100:14, 100:18, 100:19, 100:23, 101:8, 103:16, 103:25, 104:6, 112:19, 113:11, 113:13, 113:14, 114:5, 120:9, 121:11, 121:13, 121:18, 123:5, 123:7, 123:16, 125:8, 125:15, 140:1, 140:7, 146:21, 146:22, 147:10, 147:15, 151:15, 152:16 Couldn't - 9:5, 13:12 Council - 103:3 Counsel - 53:8, 62:6, 126:8, 160:13, 162:9 Counter-productive - 57:3 Couple - 62:3, 86:21, 109:1, 114:18, 127:7, 137:12 Course - 10:7, 11:4, 11:11, 17:6, 65:20, 70:8, 74:8, 78:17, 89:15, 108:22, 146:1, 162:2 Cover - 73:12 Covered - 117:11, 125:11, 125:19, 125:20 Covering - 78:9 Covers - 85:7 Coxworthy - 68:7, 68:8, 68:12, 68:13, 69:5, 69:9, 69:19, 70:6, 70:12, 70:22, 71:12, 71:22, 72:6, 72:17, 73:18, 74:3, 74:15, 74:25, 75:10, 75:17, 75:21, 76:8, 76:16, 76:20, 77:1, 77:21, 78:7, 78:23, 79:3, 79:19, 80:1, 80:6, 80:15, 80:21, 81:4,</p>	<p>81:14, 81:23, 82:9, 82:14, 82:20, 83:6, 83:14, 83:21, 84:3, 84:23, 85:4, 85:10, 87:11, 87:25, 88:22, 89:7, 90:3, 90:13, 90:18, 91:14, 92:8, 92:15, 93:4, 93:12, 94:17, 94:24, 95:7, 95:13, 96:1, 96:9, 97:3, 99:9, 99:15, 99:22, 101:10, 102:1, 102:7, 102:20, 104:7, 104:25, 105:17, 106:1, 106:2, 106:23, 107:7, 107:11, 107:16, 107:22, 108:13, 108:18, 109:2, 109:10, 109:21, 110:13, 110:23, 111:17, 112:3, 112:20, 113:17, 113:23, 114:8, 114:25, 115:7, 115:11, 115:15, 115:25, 116:12, 116:17, 116:24, 117:5, 117:16, 118:15, 118:25, 119:4, 119:14, 119:22, 122:10, 123:21, 124:8, 124:18, 125:3, 125:24, 126:9, 126:13, 133:22, 135:16 Created - 63:6 Creates - 142:7 Critical - 39:3, 66:10 Crook - 58:1 Cross - 34:9, 34:10, 35:10 Crowd - 23:17 Crunch - 104:15 Cryptocurrency - 117:13 Cumulative - 76:1, 76:3 Current - 44:11, 56:3, 56:5, 112:17, 140:25 Currently - 1:24, 33:22, 36:17, 52:2, 127:15, 160:1</p>	<p>Customer - 39:6, 40:21, 43:4, 43:6, 43:10, 43:19, 43:23, 44:6, 44:7, 44:18, 48:11, 60:5, 63:10, 64:22, 66:7, 105:13, 124:16, 133:3, 136:6, 137:20, 145:23, 147:22, 149:19, 150:24 Customers - 2:6, 2:10, 2:13, 3:14, 3:15, 3:24, 6:14, 6:16, 6:17, 13:10, 13:21, 14:1, 25:22, 28:22, 31:17, 35:12, 36:23, 37:11, 37:12, 37:17, 37:18, 38:8, 38:24, 40:18, 41:18, 42:23, 43:12, 43:14, 43:18, 43:22, 43:25, 44:1, 45:13, 46:2, 46:14, 46:20, 46:24, 47:11, 48:6, 48:10, 48:16, 48:18, 51:14, 51:18, 52:12, 55:13, 57:16, 60:1, 61:19, 63:5, 63:17, 63:23, 66:14, 66:17, 66:21, 67:3, 67:8, 91:20, 92:7, 98:25, 104:19, 105:5, 106:11, 106:25, 108:5, 112:1, 121:1, 122:2, 128:1, 128:5, 129:5, 130:25, 132:22, 137:9, 140:13, 140:14, 142:13, 144:18, 146:1, 149:15, 151:16, 151:23 Customers' - 45:24 Customer's - 31:9, 31:12, 97:7 Cut - 4:7, 31:5 Cuts - 31:7 Cutting - 38:24, 39:1</p> <div style="border: 1px solid black; width: fit-content; margin: 10px auto; padding: 2px 10px;"> <p style="text-align: center; margin: 0;">D</p> </div> <p>Data - 140:24, 141:1</p>
--	--	--	---	--

<p>Date - 28:2, 77:13, 80:24, 81:8, 81:17, 90:15, 91:3, 91:7, 149:8, 153:16, 161:11</p> <p>Dates - 159:16</p> <p>Day - 10:3, 15:9, 15:12, 39:10, 39:12, 40:10, 53:13, 88:16, 90:24, 151:5</p> <p>Days - 31:6, 63:16, 63:21, 154:15, 154:16</p> <p>Dc - 20:21, 21:11, 22:9, 22:10, 23:9, 100:15, 100:16, 101:16</p> <p>Deal - 2:10, 3:3, 3:15, 5:18, 12:6, 12:20, 12:25, 13:2, 13:11, 13:18, 14:2, 30:4, 36:24, 47:2, 67:14, 89:19, 114:13, 118:10, 150:23, 151:15, 156:5</p> <p>Dealing - 10:2, 10:7, 15:15, 26:11, 35:18, 55:12, 88:18, 89:12, 106:20, 108:4, 108:7, 109:19, 118:3, 123:17, 130:25, 131:19, 141:1, 152:18</p> <p>Deals - 56:19, 56:20</p> <p>Dealt - 14:5, 119:12, 121:12, 122:1, 123:19</p> <p>Death - 44:3</p> <p>Debate - 60:9, 60:10, 96:20, 123:11</p> <p>Debates - 120:23, 123:15</p> <p>December - 69:12, 69:13, 72:8, 72:9, 72:10, 76:4, 80:24, 84:12, 85:16, 105:9, 106:13</p> <p>Decided - 53:9</p> <p>Decision - 5:3, 37:12, 47:2, 59:16, 117:18, 161:1</p> <p>Decisions - 16:7,</p>	<p>37:22, 41:9</p> <p>Deck - 101:24, 102:2</p> <p>Decline - 64:23</p> <p>Declined - 9:15</p> <p>Declining - 38:7, 38:11</p> <p>Decrease - 40:22, 59:1, 139:7</p> <p>Deferral - 48:8, 127:22, 128:11, 129:9, 129:12, 149:18</p> <p>Deferred - 107:5</p> <p>Deficiency - 28:15, 28:16, 104:24</p> <p>Deficit - 44:2, 123:12</p> <p>Deficits - 86:3</p> <p>Defined - 116:23</p> <p>Definitely - 124:14</p> <p>Degree - 3:21, 152:4</p> <p>Delay - 28:1, 104:19, 115:3, 119:5</p> <p>Delayed - 28:5, 28:6, 41:19, 41:21, 104:14, 105:8, 106:12, 133:10, 136:18, 139:12, 139:21, 146:18</p> <p>Delaying - 60:5</p> <p>Deliverable - 68:21, 71:14, 73:24, 74:7, 74:18</p> <p>Deliverables - 90:10</p> <p>Delivered - 10:4, 74:14</p> <p>Deliveries - 78:13, 90:6</p> <p>Demand - 30:18, 30:19, 35:11, 39:4, 42:6, 43:5, 44:18, 49:2</p> <p>Demands - 54:11</p> <p>Demonstrated - 61:16</p> <p>Dependant - 70:8, 142:24</p> <p>Dependent - 133:8</p> <p>Depressed - 9:12</p> <p>Describe - 140:16</p> <p>Described - 102:21</p> <p>Design - 37:16, 38:22, 40:17,</p>	<p>41:17, 44:5, 44:9, 45:3, 46:9, 56:20, 56:22, 56:24, 57:2, 57:7, 62:17, 111:3, 111:5, 111:25, 114:6, 114:12, 115:2, 119:8, 122:1</p> <p>Despite - 51:15, 63:22, 75:22</p> <p>D'espoir - 38:5</p> <p>Detached - 50:11</p> <p>Detailed - 23:10, 99:3, 99:16, 99:20, 101:22, 101:25, 102:5</p> <p>Determination - 59:13, 157:11</p> <p>Determine - 4:3, 5:8, 5:17, 26:5, 35:7, 42:22, 127:23, 128:16, 139:8, 152:5</p> <p>Determined - 157:13</p> <p>Determining - 25:18</p> <p>Devaluation - 121:17</p> <p>Developed - 3:6, 7:18</p> <p>Development - 36:22, 46:11</p> <p>Deviated - 48:7</p> <p>Dichotomy - 97:12</p> <p>Dictate - 78:4</p> <p>Didn't - 9:3, 23:10, 24:22, 39:25, 40:5, 42:15, 60:4, 60:12, 61:3, 63:8, 64:2, 64:5, 71:11, 86:13, 89:22, 102:14, 104:15, 115:20, 116:25, 124:19, 131:14, 143:18, 144:11, 150:21, 151:13, 151:14, 162:19</p> <p>Difference - 40:2, 40:6, 77:23, 100:15</p> <p>Differences - 40:9</p> <p>Different - 9:9, 9:10, 9:16, 14:12, 34:20, 37:23, 47:22, 55:5, 64:1, 95:9, 100:17, 100:21, 102:10, 103:10, 108:11,</p>	<p>109:24, 118:20, 118:23, 122:17, 136:20, 150:6</p> <p>Differential - 42:16</p> <p>Difficult - 60:21, 88:2, 152:5</p> <p>Difficulties - 152:3</p> <p>Difficulty - 156:12</p> <p>Directed - 67:1</p> <p>Direction - 47:14, 117:1</p> <p>Directly - 1:14, 7:12, 8:3, 8:7, 8:11, 12:15, 13:3, 14:5, 130:18, 130:25</p> <p>Director - 103:11</p> <p>Disadvantage - 52:10</p> <p>Disagree - 20:2</p> <p>Disappearing - 14:7:16</p> <p>Discussing - 71:19</p> <p>Discussions - 16:9, 16:14, 16:15, 17:3, 18:17, 111:11, 161:3</p> <p>Displace - 29:13, 29:15</p> <p>Disposition - 128:13, 128:16, 129:16</p> <p>Distance - 20:20</p> <p>Distances - 101:4</p> <p>Distort - 96:22</p> <p>Distribution - 123:5, 123:6, 123:16</p> <p>Document - 21:5, 95:9, 112:15, 161:6</p> <p>Documents - 51:12, 95:15, 98:12</p> <p>Doesn't - 6:16, 12:6, 13:22, 15:6, 16:4, 40:12, 89:18, 103:4, 145:14</p> <p>Dollar - 10:5, 107:4, 137:18</p> <p>Dollars - 22:6, 28:21, 48:14, 60:24, 87:21, 90:1, 96:16, 106:22, 137:19, 137:22, 151:17, 158:1</p> <p>Don't - 2:22, 8:21, 17:10, 17:13, 17:18, 18:14, 21:8, 23:16, 32:8, 34:21, 34:22, 35:6, 37:6, 39:20, 39:21,</p>	<p>48:15, 52:2, 54:14, 54:19, 54:22, 55:2, 58:10, 61:4, 66:7, 80:14, 82:23, 82:25, 83:16, 91:13, 95:2, 96:18, 96:24, 101:22, 101:24, 102:4, 104:15, 108:12, 114:3, 121:6, 121:7, 122:21, 128:8, 129:20, 135:15, 137:10, 140:22, 140:23, 141:2, 141:16, 143:5, 147:14, 156:22</p> <p>Door - 12:16, 13:25, 114:19</p> <p>Double - 96:23, 96:25</p> <p>Dr - 48:21, 49:1, 50:18, 52:16, 52:17, 53:10, 56:18, 61:12, 62:4, 62:7, 62:12, 62:18, 64:13, 64:14, 65:12, 66:6</p> <p>Draft - 127:5</p> <p>Drive - 57:13</p> <p>Driver - 27:23</p> <p>Drop - 33:20</p> <p>Dual - 62:23, 63:8, 63:13, 63:23</p> <p>Due - 28:1, 28:3</p>
E				
<p>Each - 114:18, 118:21, 124:17, 133:13</p> <p>Earlier - 35:25, 71:7, 125:2, 135:1, 135:15, 144:5, 148:4</p> <p>Earliest - 134:9</p> <p>Early - 46:2, 63:14, 145:20, 148:13, 148:15, 154:11</p> <p>Earnings - 9:17</p> <p>Earns - 61:24</p> <p>Easier - 112:13</p> <p>Economic - 8:14, 36:22, 46:11, 57:20, 61:15, 65:7, 65:10, 77:12</p> <p>Economist - 48:21</p> <p>Effect - 28:7, 55:3, 76:1, 76:3, 91:19,</p>				

<p>108:5, 133:5 Effective - 1:14 Effectively - 120:1 7, 122:2, 127:17, 130:8, 150:16, 155:20 Effects - 34:5, 34:17, 55:13, 56:9, 62:22 Efficiency - 51:2, 51:4, 53:20, 57:20, 162:24 Efficient - 2:21, 37:22, 53:21, 57:17 Effort - 27:4 Efforts - 29:12, 66:12 Eight - 43:24 Elasticities - 64:16 Elasticity - 31:11, 31:14, 31:15, 31:25, 32:2, 32:6, 32:8, 32:9, 32:11, 32:21, 32:22, 32:23, 32:25, 33:2, 33:3, 33:5, 33:10, 33:11, 33:19, 34:5, 34:7, 34:8, 34:10, 34:11, 34:17, 35:2, 35:7, 35:11, 35:21, 36:10, 48:20, 49:2, 54:12, 54:24, 55:14, 55:17, 55:18, 55:23, 56:14, 62:21 Elderly - 63:17 Electric - 2:5, 31:7, 33:21, 36:25, 38:15, 38:17, 38:18, 44:23, 50:22, 50:24, 51:9, 52:1, 53:14, 54:2 Electrical - 65:11 Electricity - 33:13, 38:8, 41:10, 42:4, 44:25, 48:23, 49:3, 49:4, 50:19, 51:5, 52:6, 52:9, 53:23, 57:4, 61:21, 61:22, 64:16, 64:20, 64:24 Elenchus - 16:19 Emera - 6:21, 7:14, 7:15, 7:22, 8:13, 9:1, 13:2 Emphasizing - 112 :22 Employees - 2:14</p>	<p>Energy - 1:15, 1:19, 1:20, 2:4, 2:8, 2:11, 3:10, 5:22, 6:2, 6:6, 6:9, 6:10, 6:12, 6:14, 6:17, 7:1, 7:12, 7:16, 7:19, 10:19, 12:6, 16:6, 16:11, 17:10, 25:4, 25:10, 25:17, 25:20, 25:23, 26:7, 26:13, 30:5, 30:24, 31:5, 31:13, 31:15, 31:16, 31:20, 36:20, 38:6, 38:24, 39:24, 40:5, 40:8, 41:2, 42:3, 43:10, 43:12, 43:13, 43:18, 43:22, 44:6, 56:19, 57:14, 62:15, 62:20, 63:24, 65:11, 66:4, 66:7, 69:15, 72:22, 75:13, 79:11, 80:11, 81:10, 81:18, 81:25, 82:16, 84:6, 84:11, 84:13, 85:18, 85:25, 86:17, 88:5, 90:8, 90:9, 106:17, 113:13, 127:12, 127:17, 127:25, 133:20, 136:2, 140:15 Energy's - 127:23 Engage - 111:10 England - 10:3, 10:20, 11:3, 13:15, 88:13 Enhance - 112:14 Enlightened - 124: 20 Ensure - 3:19 Entered - 48:25 Entirely - 51:14 Entitled - 33:17 Entity - 69:21, 125:8 Envelopes - 4:15 Envy - 23:16 Equals - 94:4, 99:25 Equity - 157:9 Essentially - 105:6 Established - 129: 13 Establishing - 118: 7, 133:2, 138:11 Estimate - 63:5,</p>	<p>93:15, 93:20, 96:22, 117:19 Estimated - 22:8, 93:13 Estimates - 21:2, 21:5, 21:13, 22:16, 43:17, 43:21, 63:7, 100:22, 101:8 Estimating - 63:1, 63:2, 63:3 Etch - 145:21 Eternal - 123:24 Eventually - 128:4 Everybody - 14:18, 19:16, 67:10, 145:3 Everyone - 1:3, 44:19, 61:10, 102:25 Everything - 65:15, 85:5, 91:1, 143:1, 143:2 Evidence - 17:11, 18:8, 19:2, 27:21, 28:25, 29:4, 29:5, 29:10, 33:9, 48:25, 52:16, 52:19, 53:10, 58:21, 62:4, 62:7, 62:12, 62:19, 64:4, 65:1, 65:15, 65:21, 67:24, 70:23, 73:3, 74:6, 74:9, 74:12, 75:7, 76:7, 76:23, 76:24, 77:10, 78:11, 79:12, 104:10, 106:7, 108:23, 112:21, 112:24, 122:19, 124:15, 130:10, 132:24, 133:4, 133:17, 134:1, 134:8, 134:10, 135:6, 138:4, 147:6, 150:13, 151:6, 152:19 Evidentiary - 148:1 9 Evolve - 91:8 Evolving - 112:19 Example - 31:3, 35:5, 35:17, 44:8, 52:7, 69:12, 72:9, 87:3, 97:4 Examples - 103:7 Exceed - 61:23 Excellent - 162:23 Except - 63:7, 100:17</p>	<p>Excess - 6:9, 6:18, 38:6, 41:2, 60:19, 68:20, 70:5, 78:6, 92:1, 104:23, 106:20 Executive - 24:5, 92:21 Exert - 5:4, 5:5 Expect - 20:22, 34:19, 55:23, 91:8, 109:23, 123:23 Expected - 43:6, 81:19, 105:5, 119:15, 143:19, 143:21, 144:8 Expeditiously - 12 4:5 Expenditures - 19: 6 Expense - 20:2 Expensive - 38:10 Experience - 2:15, 119:25, 124:1 Experienced - 34:1 8 Experiencing - 35: 3 Expert - 97:7, 103:12, 103:14, 103:19, 124:15 Expertise - 1:25, 2:24, 103:14, 103:20 Expired - 7:14 Explain - 9:14, 24:9 Explanation - 93:2 3, 161:5 Explanatory - 161: 4 Explicit - 34:14 Explore - 85:19, 109:11 Export - 61:23, 65:5, 66:3, 127:13, 130:3, 130:12, 130:19, 131:23 Exports - 5:11, 66:13, 120:22, 132:6 Exposure - 3:11 Extensive - 131:13 Extensively - 48:2 2 Extent - 84:8, 85:21, 161:4 External - 2:1,</p>	<p>2:25, 43:14, 155:21 Extra - 75:13, 77:2, 107:10 Extreme - 66:15 <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto;"> F </div> Face - 14:4, 140:14 Facilities - 18:11, 18:13, 19:7, 20:13, 20:19, 21:7, 21:11, 21:12, 22:9, 22:10 Facility - 18:20, 27:9 Factors - 16:5, 96:16, 133:14, 140:12, 142:11, 150:8, 152:7, 155:22 Fails - 61:17 Fair - 27:7, 27:14, 46:3, 48:15, 50:16, 79:25, 107:17, 116:4, 124:5, 158:8, 160:19 Fairer - 14:1 Fairly - 52:1, 111:16, 112:12, 123:19, 131:13 Fairness - 78:10 Fall - 29:11, 40:15, 47:5, 65:4, 77:15, 130:7, 133:21, 155:24 Falls - 9:20, 36:15, 47:11, 47:16, 48:24, 49:4, 56:2, 56:15, 56:19, 57:5, 59:22, 65:3, 65:4, 66:2, 66:4, 66:9, 73:11, 73:15, 115:23, 116:11, 120:8, 120:15, 125:12, 125:16, 132:17, 151:21 Famous - 17:22 Far - 10:13, 15:8, 146:18, 150:3 Fashion - 29:9 Fear - 35:24, 45:13 Feasibility - 49:3 Feasible - 153:23, 154:10 Feedback - 111:13 Feehan - 31:19, 48:21, 50:18, 52:17, 56:18, 61:12, 62:4, 64:14,</p>
--	--	--	---	--

<p>66:6 Feehan's - 49:1, 52:16, 53:10, 62:7, 62:12, 62:18, 64:13, 65:12 Feel - 91:12 Feet - 50:12 Felt - 100:12 Figure - 46:22, 47:25, 50:23, 83:2, 159:9 Figured - 131:12 Figures - 51:20, 70:24, 73:1, 74:5, 75:5, 80:10, 84:24 File - 41:15, 111:8, 111:14, 111:23, 111:24, 113:18, 114:6, 116:9, 119:19, 120:4, 127:1, 131:15, 138:18, 140:5, 153:24, 154:14, 161:8 Filed - 33:7, 41:16, 58:22, 73:3, 73:6, 75:7, 76:7, 76:11, 76:23, 109:6, 109:13, 109:17, 110:3, 110:14, 111:18, 112:12, 115:2, 118:6, 118:17, 126:1, 128:20, 133:24, 144:1, 150:13, 151:4, 157:6, 161:18 Filing - 3:6, 40:15, 40:17, 81:7, 81:16, 92:2, 92:11, 109:14, 109:16, 109:20, 111:3, 111:6, 112:5, 112:8, 112:25, 113:16, 113:19, 113:20, 115:4, 115:12, 117:22, 118:11, 119:9, 119:12, 128:15, 129:2, 131:6, 144:10, 145:9, 148:4, 149:8, 150:7, 156:23, 160:10, 161:10 Filings - 108:20, 108:21, 111:1, 111:21, 112:24, 114:11, 115:17,</p>	<p>117:6, 124:9 Final - 146:14, 157:12 Finalize - 160:18 Finance - 49:4, 104:2 Finances - 51:17, 51:19 Financial - 98:19, 149:19 Find - 27:9, 54:23, 101:6, 102:17 Fine - 13:24, 21:21 Firm - 70:21, 77:13, 122:3 First - 38:10, 69:3, 93:19, 95:19, 103:23, 111:22, 121:14, 126:20, 126:23, 132:23, 133:14, 133:25 Firsthand - 17:11 Fitzgerald - 32:19 Five - 27:20, 43:5, 43:10, 43:13, 43:17, 93:15, 148:6 Fixed - 71:1, 96:5, 96:11, 97:13, 146:23, 147:10, 147:16 Flat - 103:1 Flexibility - 85:22 Flow - 13:13, 142:5 Flows - 157:15 Following - 57:4, 150:14 Foot - 50:10 Footnote - 17:23, 18:4, 29:3, 29:4, 74:13, 82:21, 82:22, 82:23 Forecast - 19:23, 28:3, 30:18, 30:22, 31:1, 31:2, 32:24, 34:7, 34:8, 55:3, 55:9, 55:11, 60:13, 69:17, 69:20, 69:22, 70:2, 77:15, 78:16, 84:21, 86:1, 90:5, 128:8, 128:23, 131:22, 133:1, 136:5, 138:10, 138:17, 140:2, 151:24, 154:3, 154:16 Forecaster - 55:10 Forecasting - 55:1</p>	<p>7, 147:23 Forecasts - 30:21, 55:19, 78:16, 132:5, 132:6 Foresee - 122:16, 156:12 Forget - 16:17, 120:8 Form - 39:2, 39:12, 105:3, 127:21 Forming - 16:10 Forms - 67:7 Forth - 61:12, 63:10 Fortunately - 133:2 Forward - 35:3, 40:7, 40:11, 41:22, 42:17, 53:8, 54:4, 54:10, 60:6, 60:20, 73:6, 111:12, 116:10, 118:7, 120:14, 120:15, 121:21 Found - 22:11, 23:9 Four - 43:20, 142:11, 158:1 Frame - 10:17 Frequency - 121:2 Friday - 150:12, 150:14 Fuel - 29:13, 29:16, 39:23, 44:15, 50:10, 53:12, 56:10, 62:23, 63:8, 63:23, 64:16, 87:20, 138:4, 138:5, 138:10, 138:24, 139:6, 139:9, 139:12, 139:15, 146:23, 147:2, 152:23, 153:10, 154:4, 154:6, 154:15 Full - 46:5, 47:10, 61:4, 77:6, 79:13, 79:21, 79:22, 80:23, 85:17, 104:13, 104:20, 105:8, 106:11, 132:17, 134:20, 134:25, 135:1, 135:17, 146:8 Fully - 85:15 Fundamentals - 12</p>	<p>2:24 Funding - 125:13 Funds - 128:18 Furnace - 51:4 Further - 24:11, 24:21, 29:13, 51:8, 111:5, 111:9, 118:9, 126:10, 133:9, 160:8, 160:11 Future - 28:22, 48:18, 59:24, 108:20, 111:1, 129:17, 151:15 <div style="border: 1px solid black; text-align: center; width: 100px; margin: 10px 0;">G</div> Game - 41:11, 55:4 Gas - 113:8 Gave - 9:1 Geez - 34:3 General - 5:18, 30:23, 55:6, 55:19, 115:21, 118:2, 129:7, 160:20 Generally - 5:6, 21:20, 110:21 Generation - 70:20, 120:17, 120:19, 120:20, 120:24 Geothermal - 51:1 Get - 3:15, 5:3, 9:21, 11:3, 12:20, 13:13, 13:16, 13:18, 15:20, 15:21, 16:2, 27:1, 27:17, 29:14, 29:22, 31:16, 37:20, 38:9, 39:6, 40:20, 41:2, 45:4, 47:20, 48:10, 48:13, 48:14, 57:24, 60:4, 61:3, 63:10, 63:20, 63:22, 72:1, 80:14, 80:16, 80:19, 81:25, 87:1, 87:2, 87:8, 88:17, 89:19, 91:25, 92:6, 94:9, 97:16, 100:25, 109:3, 111:16, 114:18, 114:19, 118:14, 123:15, 124:15, 129:4, 147:9, 147:14, 155:23 Gets - 15:15, 31:4, 128:10, 152:14 Gigawatt - 30:25,</p>	<p>35:19, 84:18 Give - 7:7, 9:3, 13:22, 13:23, 16:4, 21:20, 23:19, 37:9, 37:19, 37:20, 40:20, 42:19, 42:20, 45:3, 46:14, 48:16, 57:16, 67:8, 79:10, 90:25, 101:1, 111:13, 161:12 Given - 11:1, 78:2, 105:7, 105:10, 131:16, 133:4, 152:4 Gives - 13:9, 13:20, 13:25, 36:18, 36:20 Glibly - 96:3 Glips - 78:25 Global - 97:11 GLYNN - 81:2, 85:8, 159:10, 159:15, 160:16, 162:13 Go - 1:5, 1:12, 4:20, 5:12, 9:25, 10:20, 17:22, 21:21, 25:19, 25:20, 25:21, 27:22, 29:3, 32:3, 32:18, 33:24, 43:2, 43:9, 44:23, 47:24, 49:1, 51:8, 51:10, 52:20, 55:22, 56:8, 59:11, 61:11, 63:19, 64:2, 65:21, 65:23, 67:11, 69:10, 72:7, 78:17, 86:25, 93:21, 101:6, 109:12, 121:13, 127:25, 128:1, 129:3, 130:24, 133:25, 135:15, 137:12, 137:19, 141:1 Going - 8:1, 12:15, 13:4, 20:16, 27:17, 30:19, 35:3, 35:23, 35:24, 40:7, 40:11, 41:6, 41:9, 42:17, 44:24, 44:25, 45:9, 45:14, 45:19, 45:23, 46:1, 46:20, 47:2, 47:23, 48:10, 51:13, 54:1, 56:6, 58:8, 58:12, 58:13,</p>
--	---	---	---	--

<p>58:14, 58:18, 60:13, 60:20, 62:9, 63:9, 63:11, 67:11, 72:1, 72:13, 74:19, 75:22, 76:10, 76:12, 85:17, 87:8, 87:13, 90:20, 91:1, 91:16, 91:17, 97:21, 99:23, 103:16, 106:4, 108:5, 109:5, 109:6, 109:12, 109:23, 111:5, 112:6, 112:7, 112:23, 116:10, 118:7, 120:1, 120:3, 122:21, 124:23, 136:23, 137:12, 138:11, 141:3, 141:14, 141:18, 142:13, 152:16, 160:21, 160:22 Gone - 4:8, 100:21 Good - 1:3, 1:7, 1:8, 1:10, 3:3, 4:4, 4:17, 5:18, 40:19, 68:9, 68:12, 105:20, 124:16, 126:16, 126:18, 154:8, 156:1, 156:5 Got - 3:2, 7:9, 8:13, 9:12, 10:25, 13:7, 13:14, 13:19, 13:24, 15:24, 15:25, 21:9, 24:2, 24:20, 24:23, 29:24, 29:25, 30:4, 30:6, 30:12, 31:4, 31:7, 31:8, 32:5, 34:3, 34:24, 36:17, 38:11, 41:19, 42:12, 56:22, 57:11, 57:16, 57:24, 62:16, 62:22, 62:23, 66:20, 66:23, 66:24, 67:5, 72:4, 78:24, 88:20, 89:14, 94:22, 94:25, 95:6, 98:25, 102:15, 107:5, 111:15, 111:21, 115:21, 116:20, 118:12, 139:15, 141:18, 147:21, 150:12, 156:9, 159:8 Government - 16:2</p>	<p>1, 47:1, 47:6, 47:12, 47:14, 66:16, 120:11, 121:8, 130:11, 130:19, 131:1 Government's - 47 :9 GRA - 91:23, 117:7, 119:19, 152:15 Granted - 103:10 Graphical - 95:1 Greatly - 163:1 GREENE - 135:13 Greene - 126:14, 126:15, 126:18, 126:19, 127:8, 128:2, 128:19, 129:8, 129:19, 129:24, 130:9, 130:17, 131:5, 131:21, 132:2, 132:11, 132:18, 133:12, 134:14, 134:18, 135:22, 136:8, 136:22, 137:8, 137:25, 138:8, 138:16, 138:21, 139:4, 139:19, 140:11, 141:4, 141:22, 142:10, 142:19, 143:8, 143:15, 143:23, 144:13, 145:5, 145:11, 145:17, 145:22, 146:13, 147:11, 147:17, 147:24, 148:7, 148:14, 148:18, 149:6, 149:13, 150:2, 150:18, 152:2, 152:11, 152:20, 153:2, 153:8, 153:14, 153:19, 154:9, 154:21, 155:2, 155:14, 156:11, 156:18, 157:4, 157:20, 158:3, 158:13, 158:19 Grid - 122:5 Gross - 73:22, 97:14, 97:23, 98:1 Ground - 78:10 Group - 160:2 Groups - 64:23</p>	<p>Guarantee - 161:1 0, 161:12 Guess - 1:4, 2:18, 3:23, 5:23, 8:12, 26:11, 27:7, 34:10, 39:19, 54:3, 55:13, 59:19, 60:9, 77:3, 84:10, 85:14, 85:19, 86:24, 87:5, 93:22, 94:1, 97:11, 97:15, 100:3, 105:1, 109:11, 115:21, 149:7, 152:3, 159:11, 162:8, 162:18, 163:5 Gun - 47:20</p> <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto;"> <p>H</p> </div> <p>Hadn't - 151:1, 155:17 Hand - 45:2, 83:16 Happening - 103:1 3, 160:5 Hard - 48:1 Hardest - 162:21 Hasn't - 67:5, 67:9 Haven't - 8:17, 16:14, 28:10, 32:14, 51:23, 52:24, 67:5, 115:17, 126:5, 132:8, 139:2, 139:17, 148:20 Haynes - 32:6, 32:8, 32:11 Hazard - 149:7 Hear - 16:1 Heard - 9:21, 17:8, 26:20, 112:21 Hearing - 2:19, 4:12, 4:13, 12:24, 17:16, 32:1, 41:19, 41:20, 56:16, 116:8, 117:13, 118:8, 120:16, 121:5, 121:10, 122:19, 122:22, 123:3, 123:8, 123:14, 124:13, 163:1 Hearings - 3:2 Heat - 31:3, 33:21, 38:15, 38:17, 38:18, 50:22, 50:24, 51:1, 52:1 Heater - 53:14, 53:19, 53:21</p>	<p>Heaters - 54:2 Heating - 44:23, 50:10, 51:9, 53:12 He's - 16:18, 16:19, 52:4, 55:10, 55:11 Hesitant - 59:2 High - 15:14, 18:18, 19:15, 19:16, 19:17, 19:22, 19:25, 22:7, 24:10, 35:23, 39:4, 53:19, 60:8, 91:2, 93:20, 104:14, 104:16, 105:10, 106:9, 147:9, 152:7 Higher - 24:10, 38:9, 42:4, 53:17, 53:18, 61:18, 61:19, 64:3, 75:12, 78:20, 137:4, 138:24, 139:13, 146:16, 146:20 Highlighted - 93:1 4 Highlighting - 67:1 2 Highlights - 67:13 Historic - 34:17 Historical - 35:1, 35:8, 37:11 Historically - 6:2, 38:4 History - 7:4, 7:7, 7:9, 7:20 Holyrood - 29:14, 29:16, 29:21, 30:3, 30:6, 30:9, 31:19, 36:19, 39:23, 87:7, 87:12, 139:15, 146:23 Honestly - 48:9 Hook - 58:1 Hope - 91:11, 111:21, 118:13, 127:1, 127:7, 153:18 Hoped - 119:15 Hopeful - 126:4, 127:6 Hopefully - 85:20, 145:9, 160:6, 162:14 Hoping - 117:20, 124:7 Hot - 33:21, 53:12, 53:14, 53:21, 54:2 Hour - 15:11,</p>	<p>15:13, 15:14, 15:16, 35:19, 87:19, 88:19, 147:3, 147:8 Hours - 30:25, 39:5, 39:7, 84:18, 88:17 House - 50:11 How's - 120:12 Hundred - 60:24 Hurriedness - 129: 2 Hutchens - 19:1, 92:19, 104:3 Hvdc - 21:7 Hydro - 1:13, 1:14, 1:18, 1:23, 2:4, 2:14, 2:19, 4:20, 4:23, 4:24, 5:5, 5:6, 5:11, 6:16, 7:10, 7:16, 9:3, 11:6, 12:16, 20:8, 20:11, 22:24, 23:15, 25:3, 25:10, 28:14, 29:6, 29:17, 32:1, 33:12, 34:18, 39:16, 42:2, 42:18, 43:16, 43:21, 44:16, 44:21, 45:18, 47:10, 47:13, 47:19, 47:22, 65:2, 69:13, 69:20, 70:1, 86:2, 86:3, 86:16, 90:19, 90:23, 91:15, 91:18, 98:16, 99:17, 102:24, 103:4, 103:9, 103:18, 109:13, 110:15, 119:23, 123:9, 124:21, 125:7, 125:10, 125:17, 127:11, 127:15, 128:4, 130:18, 131:22, 136:1, 136:7, 140:14, 142:14, 143:18, 143:24, 146:1, 149:15, 149:18, 153:24, 154:22, 156:12, 156:19, 157:12, 157:16, 158:2, 158:19, 159:24, 160:13 Hydro's - 3:25, 34:6, 34:8, 34:23, 70:2, 72:23, 81:8,</p>
---	---	---	---	---

<p>81:16, 92:21, 97:17, 114:1, 119:16, 127:18, 128:1, 133:25, 144:15, 157:11</p> <div style="border: 1px solid black; width: 100px; height: 15px; margin: 10px auto; text-align: center;">I</div> <p>IC - 92:16, 99:23 I'd - 34:21, 83:5, 83:12, 94:1, 132:22, 143:5 Ignored - 62:13 Ignoring - 121:11 I'll - 73:21, 77:6, 78:13, 79:14, 102:24, 108:19, 123:25, 125:5, 125:20, 160:24 I'm - 12:11, 12:19, 19:22, 24:12, 32:5, 32:10, 49:6, 49:15, 52:23, 52:24, 68:14, 69:3, 73:9, 74:5, 75:3, 76:2, 77:3, 78:8, 78:9, 81:5, 90:4, 90:5, 91:5, 91:10, 95:8, 97:16, 106:9, 107:8, 115:24, 117:15, 124:23, 128:16, 130:25, 131:1, 131:9, 131:10, 154:17, 161:11 Imminent - 128:22 Impact - 43:6, 44:17, 66:15, 80:11, 104:13, 104:17, 106:10, 118:18, 120:25, 121:1, 132:21, 136:10, 140:24, 141:3, 142:12, 143:7, 144:11, 149:15, 154:4, 157:13 Impacting - 129:6, 140:13, 141:19 Impacts - 30:7, 55:21, 57:3, 124:16, 128:24, 129:20, 139:13, 142:8 Impede - 65:1 Implement - 45:20, 60:8, 67:7 Implementation - 1 30:8, 132:17</p>	<p>Implemented - 146 :15, 148:9, 157:19 Implementing - 60: 6 Imply - 71:11 Importance - 67:13 Important - 40:12, 66:22, 67:15, 90:8, 90:14 Impression - 24:23 Improved - 43:4, 66:14 Incorporate - 112:1 6 Incorporated - 133 :1 Incorporates - 154 :6 Incorrect - 57:7 Incorrectly - 19:24 Increase - 27:23, 28:3, 28:4, 43:18, 43:22, 48:6, 54:6, 57:15, 64:18, 72:2, 85:23, 94:7, 98:18, 107:1, 107:10, 107:18, 108:8, 136:18, 137:2, 137:11, 139:6, 142:23, 157:8, 157:15 Increased - 23:24, 30:10, 93:18, 93:25, 95:19, 139:15 Increases - 34:11, 52:5, 54:10, 54:16, 56:15, 60:7 Increasing - 72:14, 136:13 Incur - 26:1 Incurred - 14:11 Indeed - 39:16, 161:20, 162:6 Indicated - 93:18, 126:25, 130:11, 134:2, 141:13 Indicating - 111:4, 135:8 Indication - 65:6, 105:10, 138:22 Individually - 97:1 0 Industrial - 36:23, 40:18, 41:18, 97:6, 105:4, 105:13, 106:11, 106:25,</p>	<p>108:4, 112:1, 122:2 Industrials - 45:21, 106:19, 111:15, 121:3 Industry - 94:3, 94:11, 95:25, 98:2, 98:4, 98:6, 99:24, 100:5, 100:8, 100:11 Influence - 52:12 Informed - 5:13, 144:24 Initial - 54:5, 148:4 Initially - 54:5 Inquired - 141:12 Inter - 29:17 Interconnected - 1 0:4, 64:22, 70:4, 160:2 Interconnection - 122:4 Interesting - 50:18 Interim - 33:16, 116:6, 116:20, 125:5, 125:9, 125:21 Internal - 113:12, 114:21 International - 5:25 Interpreting - 69:4 Intrinsically - 89:1 Introduction - 69:3 Investment - 141:1 6 Invoice - 97:22 Invoices - 102:23 Iron - 160:2 Island - 2:6, 6:8, 6:13, 6:15, 11:5, 11:20, 11:23, 15:18, 28:4, 29:8, 29:23, 30:12, 30:15, 30:19, 36:19, 40:18, 41:18, 45:21, 48:8, 48:11, 48:13, 58:18, 58:24, 61:19, 61:22, 64:22, 65:3, 68:21, 70:7, 71:15, 72:22, 73:13, 73:25, 74:14, 77:11, 78:12, 78:13, 81:10, 81:18, 82:22, 83:8, 84:7, 85:12, 85:23, 86:4, 86:19, 86:22, 87:4, 88:18, 89:23,</p>	<p>89:24, 90:6, 90:10, 91:20, 92:5, 99:5, 105:4, 120:14, 121:3, 122:2, 127:16, 132:20, 133:9, 144:9, 144:24, 147:15, 151:24, 153:22, 155:8 Isn't - 44:2, 85:15, 101:13, 121:17, 125:19, 144:1, 148:19 Isolated - 39:22, 42:15 Issue - 34:13, 62:13, 62:20, 64:5, 105:4, 107:23, 112:25, 120:7, 121:19, 122:8, 123:12, 123:13, 124:17, 142:8, 152:17, 160:10, 160:14 Issues - 62:3, 62:6, 62:12, 70:16, 85:21, 118:8, 119:25, 120:6, 121:4, 122:5, 122:12, 123:18, 124:2, 126:6, 159:12, 159:24, 160:6 Item - 111:22, 123:10, 123:11 Items - 31:10, 154:7 It's - 2:12, 4:4, 4:10, 4:14, 5:2, 5:8, 5:14, 5:17, 5:24, 7:10, 8:1, 9:19, 10:3, 11:3, 16:20, 19:10, 19:11, 19:21, 19:22, 22:6, 24:14, 26:6, 27:7, 28:5, 28:6, 29:20, 31:6, 34:4, 34:22, 35:23, 36:17, 38:12, 39:12, 39:19, 39:20, 42:7, 50:9, 50:18, 51:4, 53:11, 53:17, 54:9, 54:18, 54:19, 55:5, 55:6, 55:12, 55:15, 55:22, 55:24, 56:20, 57:1, 58:12, 59:15, 60:9, 60:21,</p>	<p>61:10, 61:11, 62:13, 67:12, 67:17, 70:1, 70:19, 76:1, 76:3, 79:12, 79:20, 84:5, 84:15, 87:13, 87:21, 88:19, 88:24, 89:4, 89:5, 90:8, 91:12, 91:17, 95:3, 95:6, 95:9, 95:20, 96:17, 98:23, 98:24, 102:2, 102:21, 103:22, 105:2, 107:20, 107:21, 108:9, 109:23, 110:1, 114:3, 114:16, 114:20, 118:1, 120:2, 121:2, 122:21, 124:1, 124:17, 127:6, 129:5, 134:15, 138:23, 139:16, 140:20, 142:24, 143:20, 145:20, 151:22, 152:5, 152:17, 155:17, 155:19, 156:7, 160:21, 160:22, 161:7, 161:12 I've - 7:9, 8:17, 9:23, 13:14, 13:19, 16:16, 17:3, 32:12, 36:21, 56:22, 84:11, 94:25, 101:11, 101:22, 109:18, 111:15, 112:21, 117:11, 120:6, 141:18, 157:3</p> <div style="border: 1px solid black; width: 100px; height: 15px; margin: 10px auto; text-align: center;">J</div> <p>January - 83:9, 106:25, 117:23, 142:24, 146:7, 146:8, 148:9, 148:24, 149:4 Jennifer - 86:5 Job - 2:12, 59:12, 59:15, 162:23 Jobs - 162:21 John - 16:17 John's - 50:12 Judge - 5:15 July - 32:18, 50:21, 76:17, 76:19, 76:21, 132:24, 134:2, 134:15, 136:18, 141:12</p>
---	--	--	--	---

Jump - 43:25
Jumping - 47:20
June - 84:18, 141:11
Jurisdiction - 14:17
Jurisdictions - 1:16, 1:20, 11:2, 14:13, 20:18, 141:25, 153:23
Justified - 39:22, 120:17
Justify - 101:1

K

Key - 27:23, 36:16, 140:22
Kick - 125:14
Kilometres - 20:21
Kilowatt - 15:11, 15:13, 15:14, 15:16, 42:8, 57:6, 64:20, 87:18, 88:17, 88:19, 147:3, 147:8
Kilowatts - 45:7
Kinds - 45:8
Kinks - 18:14
Knowing - 15:25
Knows - 45:9, 89:20

L

Lab - 22:4
Labrador - 6:8, 6:10, 6:13, 11:5, 11:20, 11:23, 21:24, 29:8, 30:12, 46:13, 46:14, 46:15, 58:18, 58:24, 70:3, 70:13, 72:5, 86:22, 89:23, 99:5, 99:6, 120:12, 120:14, 133:9, 160:1
Lacks - 4:13
Large - 55:22, 64:18, 64:23, 90:1, 100:18, 140:23
Larger - 55:24
Largest - 60:23
Late - 116:2, 131:11, 131:15
Later - 78:20, 93:16, 127:12, 130:6, 134:7, 135:3, 146:15

Latter - 84:8
Leading - 117:7
Leave - 36:6, 81:5, 81:6, 108:19, 144:20
Leaving - 37:18
Leblanc - 32:20, 32:23
Leblanc's - 19:4, 103:25, 134:1
Led - 99:3, 148:3
Legal - 126:8
Legislation - 47:9, 47:13
Legislative - 130:23
Let's - 86:25, 87:2
Level - 64:3, 90:8, 91:2, 93:19, 93:20, 104:14, 104:16, 105:10, 106:9, 113:24, 120:8, 137:4, 142:15, 145:24
Lifeline - 45:6
LIL - 17:25, 18:10, 18:14, 18:15, 27:25, 28:1, 28:5, 70:9, 71:15, 72:3, 77:6, 78:4, 78:22, 79:13, 79:21, 84:14, 85:14, 104:13, 104:19, 105:8, 125:8, 125:15, 125:18, 133:15, 133:19, 133:24, 134:21, 135:20, 135:23, 136:10, 139:12, 139:21, 139:23, 140:3, 140:21, 142:7, 153:4, 153:16, 156:1
LIL's - 106:11
Limited - 21:11, 22:20, 22:23, 30:1, 87:1, 88:12, 103:2, 123:18
Limiting - 70:14, 88:21
Line - 32:7, 32:20, 32:23, 43:9, 61:12, 61:18, 69:6, 72:19, 73:7, 73:23, 73:25, 85:24, 86:22, 102:6, 120:12, 120:18, 122:7

Lines - 20:21, 23:9, 27:20, 27:22, 77:10, 100:13, 101:4, 101:16, 104:23, 114:20, 120:20, 132:25, 150:22, 151:4
Link - 6:8, 6:13, 10:8, 10:18, 10:25, 11:5, 11:14, 11:21, 11:23, 15:1, 15:2, 15:22, 28:14, 29:8, 30:12, 30:14, 58:18, 58:24, 89:23, 89:25, 99:5, 120:14, 133:9
Linked - 118:21
Listed - 138:3, 140:12
Litres - 53:13
Load - 31:9, 32:24, 36:22, 37:6, 37:8, 40:21, 40:24, 46:11, 70:3, 141:17
Long - 13:6, 34:8, 46:15, 49:1, 55:22, 56:11, 56:14, 64:15, 86:6, 86:14, 88:2, 88:9, 98:21, 120:2, 122:21, 123:23, 132:1
Longer - 35:16, 77:14, 130:5, 132:15
Look - 10:17, 14:11, 14:21, 24:8, 31:14, 42:17, 47:23, 57:11, 57:16, 58:15, 58:16, 62:16, 66:20, 70:2, 72:24, 73:4, 73:23, 91:1, 92:4, 94:2, 97:4, 100:12, 106:15, 106:17, 108:3, 108:6, 123:6, 123:9, 123:25, 156:7, 156:8, 156:20
Looked - 20:22, 37:16, 51:24, 123:3, 135:14
Looking - 9:8, 20:17, 22:12, 35:3, 36:9, 36:21, 36:22, 36:24, 38:19, 40:7, 40:11, 40:14, 41:11, 44:1, 46:10, 46:13,

51:19, 62:14, 67:13, 73:20, 79:11, 87:4, 96:15, 101:14, 101:15, 107:1, 107:8, 137:2, 137:10, 142:21, 142:23, 143:24, 146:3, 149:14
Lose - 35:12
Losing - 63:24
Loss - 15:2, 15:5, 139:20
Losses - 14:22, 14:23, 14:24, 14:25, 15:1, 15:7, 26:1, 73:22, 74:21, 89:5, 89:14, 89:18
Lost - 43:16, 106:19, 136:14
Lot - 7:9, 18:12, 20:4, 20:7, 22:10, 22:12, 22:20, 31:4, 35:12, 39:25, 40:10, 55:23, 60:18, 62:23, 66:18, 67:17, 91:6, 114:1, 122:23, 123:20, 146:20, 146:22, 151:8, 155:21
Lots - 14:22, 36:20
Love - 161:10
Low - 15:13, 16:1, 19:24
Lower - 24:16, 28:19, 39:7, 42:5, 42:6, 46:21, 46:24, 75:5, 77:5, 138:24
Lowest - 2:21
LTA - 17:25, 18:11, 20:21, 21:23, 28:1, 125:8, 125:15

M

Madam - 68:9, 105:19, 106:3, 159:11, 160:16
Magnitude - 80:10, 87:23, 90:1, 142:15
Maintain - 3:21, 29:24, 31:8
Maintained - 63:12
Maintaining - 19:7, 30:15
Maintenance - 27:25, 140:1
Major - 31:16, 42:24, 52:12, 115:21
Make - 14:18, 37:17, 37:22, 40:10, 44:2, 52:12, 59:13, 59:16, 66:8, 69:3, 69:21, 78:24, 78:25, 86:3, 86:18, 91:16, 103:23, 112:13, 117:21, 153:5, 161:1
Making - 5:2, 6:13, 12:8, 16:7, 37:12, 41:8, 121:8
Manage - 4:24, 4:25, 5:6, 51:17, 51:18, 144:18, 149:16
Managed - 149:22
Management - 4:22, 5:4, 5:7, 5:19, 18:19, 20:12
Manager - 2:17
Managing - 5:10
Many - 54:1, 152:7
Margin - 39:23, 78:24
Marginal - 37:5, 37:7, 37:10, 37:13, 37:21, 38:13, 39:25, 40:4, 40:5, 40:8, 40:19, 40:21, 40:23, 40:25, 41:15, 42:13, 42:20, 44:6, 57:12, 57:18, 61:15, 62:16, 66:21, 67:8, 67:14, 87:6, 89:16, 89:20, 110:6, 111:23, 112:5, 112:8, 112:19, 112:22, 113:10, 113:11, 113:12, 113:13, 113:18, 114:5, 114:12, 115:1, 119:8
Maritime - 10:8, 10:18, 10:25, 11:14, 15:1, 15:22, 16:11, 28:14, 29:8, 30:13, 89:25
Market - 2:8, 6:4, 6:19, 7:24, 8:2, 9:9, 9:12, 10:3, 15:21, 16:1, 41:1, 41:3, 51:10, 51:13,

<p>66:13, 86:11, 86:12, 88:13, 89:8, 141:10, 141:14, 155:21 Marketer - 16:11 Marketing - 1:17, 1:19, 1:20, 2:5, 2:11, 2:20, 3:10, 3:24, 4:9, 5:10, 5:22, 5:23, 6:2, 6:6, 6:11, 6:12, 6:18, 7:2, 7:15, 7:18, 7:19, 8:20, 12:6, 14:10, 16:7, 17:10, 25:4, 25:11, 25:17, 25:20, 25:23, 26:8, 26:13, 127:25 Markets - 2:1, 2:25, 5:25, 7:17, 43:15, 66:14, 113:14, 132:8 Marshall - 95:18 MASSIE - 18:1, 18:5, 49:23, 162:20, 163:2 Material - 20:1, 52:5, 52:10, 59:1, 72:2, 87:21, 98:18, 107:21, 142:4, 149:21 Materialize - 150:8, 156:23 Materially - 22:18, 31:20, 34:12, 55:5, 60:7, 121:1, 133:11, 140:20, 140:21, 146:20, 147:5 Math - 44:11, 51:23, 51:24, 136:16 Mathematical - 13 9:18 Mathematics - 80: 4 Matters - 1:4, 12:25, 17:13, 51:7, 121:20 Maturity - 96:13 Maximized - 3:20 Maximum - 14:18, 72:11 Measure - 155:4 Measures - 108:14 Mechanism - 155:1 0 Media - 9:23, 123:20, 130:16</p>	<p>Meet - 31:9, 86:16, 116:21 Meeting - 161:9 Meetings - 19:2, 91:10 Megawatts - 30:11, 76:5, 76:6, 87:3 Memorial - 48:21 Mentioning - 64:7 Messages - 44:21 Methodology - 40: 16, 102:11, 109:18, 110:5, 112:2, 121:5, 122:23, 123:3, 123:4, 123:8, 123:14 Million - 17:24, 18:19, 19:21, 19:22, 22:2, 22:3, 22:5, 22:6, 22:15, 22:16, 22:17, 23:25, 24:17, 27:24, 28:21, 28:22, 48:14, 48:17, 60:24, 93:15, 93:16, 93:25, 94:4, 94:8, 94:9, 99:25, 106:16, 106:18, 106:21, 107:4, 137:18, 137:22, 158:1 Mini - 50:25 Misheard - 153:13 Missed - 109:1 Misunderstand - 7 1:8 Misunderstood - 7 0:24, 101:12 Mitigate - 79:7, 91:19, 105:12 Mitigation - 108:14 , 120:10, 121:6, 121:11, 121:12, 121:15, 131:4, 151:23, 155:4 Model - 55:16, 97:19 Models - 34:6, 34:15, 55:15 Modify - 92:1 Money's - 18:12 Month - 63:5, 72:12, 78:21, 82:17, 83:3, 85:1, 107:6, 135:2 Monthly - 63:2,</p>	<p>63:3, 68:22, 71:1, 82:1, 84:5, 85:3, 145:2, 156:13, 156:15 Months - 41:20, 41:21, 71:7, 75:24, 76:5, 77:6, 84:25, 107:5, 162:22 Morning - 1:3, 1:7, 1:8, 1:10, 68:9, 68:12, 126:16, 126:18, 135:15, 139:24 Move - 10:13, 41:22, 45:10, 59:2, 63:12, 63:13, 69:1, 72:18, 92:16, 108:19, 124:4, 132:19 Moved - 146:18 Moving - 45:17, 56:1, 60:5, 147:5, 157:5 Much - 5:4, 17:14, 23:18, 27:2, 29:25, 30:13, 30:15, 34:24, 36:10, 38:16, 42:17, 58:11, 65:4, 69:14, 70:7, 72:2, 78:20, 82:1, 82:2, 82:4, 83:8, 83:9, 88:25, 118:9, 118:10, 136:12, 137:11, 137:15, 145:9, 146:19, 150:22, 154:18, 160:3, 162:23, 163:5, 163:8 Muskkrat - 9:20, 36:15, 47:11, 47:16, 49:4, 56:2, 56:15, 56:19, 57:5, 59:22, 65:3, 65:4, 66:2, 66:3, 66:9, 73:11, 73:15, 115:23, 116:11, 120:8, 120:15, 125:12, 125:16, 130:8, 130:13, 132:16, 151:21</p> <p style="text-align: center;">N</p> <p>Nalcor - 1:17, 1:19, 1:20, 2:10, 2:18, 2:20, 3:9, 3:25, 4:9, 5:12, 5:22, 6:2, 6:6, 6:10, 6:12, 6:17,</p>	<p>7:1, 7:17, 7:19, 12:6, 16:6, 17:9, 18:17, 20:8, 22:17, 23:16, 23:23, 24:7, 25:3, 25:10, 25:17, 25:20, 25:23, 26:7, 26:13, 69:21, 90:23, 91:7, 92:25, 93:10, 97:18, 98:12, 101:13, 102:10, 102:23, 103:6, 103:17, 125:8, 127:10, 127:17, 127:23, 127:25, 132:7, 135:8 Nalcor's - 65:1, 66:11, 102:14 Native - 70:2 Near - 87:8 Nearest - 11:5 Necessary - 1:25, 2:23, 121:17, 125:10 Needed - 36:18, 100:12 Negotiated - 59:19, 125:6 Negotiating - 87:6, 89:21 Negotiation - 88:2 5 Neighbour - 44:24, 45:1 Neighbourhood - 15:10, 147:7 Net - 27:23, 28:3 New - 10:2, 10:17, 10:20, 10:21, 11:2, 13:15, 13:16, 14:24, 18:11, 18:12, 18:19, 19:12, 19:25, 24:12, 24:16, 51:3, 53:16, 88:13, 96:17, 140:24, 147:5, 148:24, 150:12, 162:2 Newfoundland - 1 0:19, 15:15, 30:22, 37:4, 39:17, 40:17, 41:17, 42:19, 42:24, 45:21, 46:9, 51:15, 55:11, 55:16, 62:22, 62:24, 63:19, 104:18, 111:11, 111:25,</p>	<p>121:2, 137:20, 157:6, 157:16, 157:18 Nice - 121:15 Nimble - 86:1, 86:2 Nine - 49:22, 49:24, 50:5 Nineties - 63:4 NLH - 1:12, 9:25, 10:1, 43:2, 44:14, 68:14, 72:23, 72:24, 75:3, 76:11, 92:16, 99:23 Non - 122:3 Normal - 148:21 North - 122:4 Noted - 81:3 Notice - 15:8, 58:8, 91:1 Notified - 25:9 Nova - 10:18, 10:23, 13:17, 14:25 November - 76:4, 79:20, 80:8, 82:4, 84:12, 85:16, 91:17, 105:9, 106:12, 109:7, 110:14, 113:6, 113:20, 118:17, 120:4, 124:10 NP - 72:23, 72:24, 75:3, 76:10, 77:18 Numbers - 19:14, 19:15, 19:25, 20:15, 21:3, 23:24, 24:9, 24:12, 24:16, 24:24, 30:8, 52:9, 52:23, 52:24, 54:14, 54:15, 71:3, 73:5, 73:22, 74:16, 74:22, 75:2, 84:17, 94:25, 100:25, 104:16, 106:10, 112:16, 132:9, 135:10, 135:14, 142:9, 143:12, 150:15, 156:2</p> <p style="text-align: center;">O</p> <p>O&M - 17:25, 19:6, 20:1, 93:13, 94:2, 95:19, 96:4, 96:5, 96:22, 96:24, 97:9, 97:15, 97:18, 97:20, 98:1, 98:13, 98:17, 99:2, 100:14, 100:19,</p>
--	---	---	---	---

<p>101:8, 101:17, 102:18 Objective - 86:15 Obligation - 24:2, 66:24 O'brien - 19:19, 71:20, 92:17, 93:14, 104:11, 108:23, 117:10, 136:9, 136:17, 146:10 Occur - 3:17, 105:6, 151:12 Occurred - 19:3, 77:13 Occurs - 5:16 October - 58:22, 71:16, 76:4, 79:14, 80:8, 82:2, 84:11, 84:25, 85:16, 90:14, 90:19, 91:3, 91:17, 118:13, 118:17, 134:9, 134:20, 134:23, 134:25, 135:3, 135:7, 135:10, 135:18, 135:21, 138:18, 148:10, 148:15, 148:23, 149:3, 153:5, 154:23 Odd - 95:6 Offer - 54:2 Officially - 131:2, 135:2 Offset - 121:12, 139:22 Often - 55:21 Oil - 51:2, 51:3, 52:1, 52:7, 53:16, 138:11 Old - 19:11, 53:14 One - 21:7, 31:10, 32:10, 34:19, 35:20, 44:22, 45:8, 48:1, 52:16, 53:14, 53:16, 58:7, 58:10, 61:1, 62:19, 64:1, 67:15, 84:4, 85:9, 85:11, 87:22, 91:11, 110:4, 110:12, 112:4, 114:23, 115:20, 115:21, 115:22, 120:7, 120:22, 121:4, 126:8, 126:23, 127:9, 133:15,</p>	<p>138:2, 141:7, 142:4, 147:8, 147:22, 150:11, 152:3, 153:18, 157:24, 159:16, 159:18, 161:24, 162:21 Ones - 117:10, 117:11, 117:15, 125:2, 137:5, 147:20, 162:2 Ongoing - 26:23, 91:9, 145:1, 160:5 Ontario - 13:15 Open - 12:24, 108:17, 116:8, 116:22, 117:23 Opens - 13:25 Operating - 27:25, 140:1 Operation - 18:18, 20:12, 132:16 Opinion - 35:21 Opportune - 127:19 Opportunities - 1:15, 1:21, 86:9, 88:4 Opposed - 77:7, 97:14, 101:18 Optimal - 65:10 Optimist - 123:24 Optimistic - 148:22, 161:13 Optimization - 130:2 Option - 13:7, 13:10, 13:12, 13:15, 59:6, 110:8, 150:3, 151:10 Options - 13:25, 46:23, 92:5, 110:4, 110:19, 128:17, 149:16, 150:23, 151:3, 156:20 Order - 13:2, 14:12, 91:25, 116:18, 118:13, 119:18, 129:17, 148:8, 148:10, 148:23, 149:3, 149:12, 154:1, 158:5, 158:11 Orders - 103:3 Ore - 160:2 Organization - 16:25 Origin - 11:4</p>	<p>Original - 19:20, 19:23, 54:24, 59:18, 72:7, 76:6, 96:15, 96:21, 123:22 Originally - 86:1 Otherwise - 71:17, 98:12, 117:1 Outcome - 150:6 Outcomes - 65:9, 119:15, 127:9 Outlined - 108:22, 126:23 Output - 70:1 Outstanding - 159:12, 159:24, 160:10, 161:17, 162:1 Outstrips - 53:20 Overhead - 21:6 Overly - 114:10 Oversight - 4:22 Owed - 28:20 Own - 7:18, 35:21, 51:17, 51:18, 53:9, 55:14, 114:21, 131:18 Owned - 23:16 OXFORD - 159:1</p> <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto; padding: 2px 10px;"> P </div> <p>Paid - 26:7, 27:6, 27:8, 139:22 Pancaking - 103:12 Panel - 24:20, 29:10, 32:17, 159:19, 160:9 Papers - 32:12 Participant - 17:4 Particularly - 155:8 Parties - 42:21, 87:5, 89:13, 111:10, 154:2, 159:22, 160:7 Partnership - 16:24 Party - 16:9, 89:19 Passage - 93:22 Past - 110:25, 112:5, 124:1, 132:7 Patrick - 97:7 Patterns - 52:13 Pay - 37:25, 38:1, 46:24, 48:12, 48:18, 65:2, 103:2, 142:13 Paying - 1:18,</p>	<p>16:4, 25:3, 42:7, 46:21, 50:21, 60:1, 89:6, 125:7 Peak - 31:18, 39:3, 39:5, 42:5, 63:16, 63:22 People - 2:9, 32:12, 33:20, 35:2, 35:25, 36:5, 38:14, 41:8, 44:22, 45:4, 45:5, 45:10, 47:23, 50:21, 62:23, 63:8, 63:12, 67:5, 83:5, 104:5, 118:24, 151:7, 160:20, 160:23 Percent - 43:5, 43:10, 43:13, 43:15, 43:17, 43:20, 43:21, 43:24, 48:7, 51:3, 51:4, 53:15, 53:19, 54:6, 54:8, 55:1, 55:2, 57:15, 64:19, 65:13, 94:16, 106:18, 107:1, 107:10, 107:21, 108:9, 136:12, 136:19, 137:11, 137:21, 137:24, 142:23, 145:21, 146:5, 146:6, 148:6, 151:9, 157:10, 157:24 Percentage - 95:21, 96:6, 97:1, 97:11, 97:13, 97:24, 100:9, 146:15 Percentages - 96:11 Perhaps - 76:11, 88:7, 103:2, 103:6, 105:18, 122:12, 160:24, 162:14 Period - 10:5, 26:24, 47:24, 68:22, 71:21, 108:11, 125:11, 125:17, 134:5, 155:19 Periods - 9:9, 9:16, 42:5 Person - 103:19 Personal - 35:21 Perspective - 3:9, 4:6, 24:2, 31:20, 31:23, 36:11, 39:24,</p>	<p>57:21, 60:3, 67:10, 67:16, 70:21, 88:13, 91:22, 91:24, 92:3, 114:17, 123:1, 133:25, 136:1, 136:7, 143:18, 144:15, 145:24, 147:22, 147:23, 149:20, 149:23, 150:10, 152:21, 154:11, 162:18 Piece - 31:21 Pilot - 121:24 Place - 1:24, 2:23, 69:17, 77:18, 151:14 Plan - 15:24, 19:7, 36:5, 36:7, 42:16, 45:10, 45:16, 45:23, 79:17, 86:15, 111:22, 111:24, 113:15, 113:18, 113:22, 113:24, 121:16, 121:17, 130:5, 130:7, 131:10, 132:1, 135:5, 150:12 Planned - 111:22, 113:8, 133:24 Planning - 86:14, 92:3 Plate - 114:1 Play - 16:6, 42:24, 55:24, 96:17, 140:24 Pointing - 95:25 Points - 62:18, 67:17, 86:21, 122:17, 157:9 Policy - 47:1 Politics - 9:2, 12:5, 12:13 Pond - 74:19 Ponding - 3:5, 25:13, 25:22, 25:25, 26:2, 26:25, 126:24, 128:9, 129:14 Pool - 16:2 Pooling - 16:25 Popping - 65:14 Population - 63:18 Portion - 100:18, 147:9 Position - 17:6,</p>
--	---	---	---	---

<p>117:19, 117:21, 153:15 Positioning - 23:14 Possibilities - 64:17 Post - 9:11, 116:11, 129:9, 130:7, 130:13, 132:16 Potential - 44:17, 128:9, 128:23, 131:23, 136:10, 137:13, 144:11, 146:3, 149:14, 155:9, 156:14, 156:22 Power - 5:23, 6:3, 6:15, 6:22, 7:23, 8:10, 11:6, 11:11, 11:24, 12:17, 13:16, 15:17, 15:25, 20:8, 22:5, 22:17, 23:23, 26:11, 26:14, 29:14, 30:23, 37:4, 39:17, 40:17, 41:17, 42:19, 42:24, 45:21, 51:16, 62:24, 71:6, 71:20, 71:23, 71:25, 72:5, 73:11, 77:3, 86:12, 91:7, 93:11, 101:2, 104:18, 111:12, 111:25, 121:2, 125:12, 127:15, 135:8, 137:20, 157:6 Power's - 46:9, 55:11, 55:16, 104:18, 157:18 Practical - 154:20 Practicing - 2:7 Pre - 26:23, 73:15 Prefer - 134:11 Preference - 111:14 Preliminary - 1:4, 161:2 Premature - 156:8 Preparation - 77:18, 93:6, 135:6, 152:19 Prepared - 19:12, 46:10, 69:18, 118:10, 119:23, 119:24 Preparing - 58:16, 58:21, 60:22, 76:24, 151:6</p>	<p>Present - 3:8, 60:11, 92:20, 92:24, 93:11, 94:10, 97:21, 99:1, 101:17, 143:5 Presentation - 19:18, 92:20, 92:23, 92:24, 93:2, 94:10, 95:18, 139:17, 159:16 Presentations - 162:16 Presented - 25:14, 28:24, 35:14, 37:2, 60:4, 61:2, 64:15, 78:2, 93:3, 98:11, 98:17, 110:5, 110:9, 143:6, 151:22 Presenters - 159:17, 159:23 Presenting - 138:4 President - 32:6 Pressure - 149:10 Presumably - 125:7, 153:15 Presuppose - 83:17 Pretend - 160:21 Previous - 31:2, 84:25, 111:2, 112:7, 121:22, 137:5 Previously - 68:17, 73:6, 76:9, 97:8, 98:20, 110:12, 115:18 Price - 9:13, 13:23, 13:24, 14:14, 14:16, 15:6, 15:9, 15:12, 16:1, 16:3, 34:10, 34:11, 35:11, 35:17, 35:23, 37:5, 37:9, 37:13, 37:14, 37:21, 39:5, 40:19, 40:21, 42:4, 42:5, 42:20, 44:7, 49:2, 50:19, 50:20, 51:8, 52:6, 52:7, 53:22, 55:14, 56:10, 57:6, 57:14, 57:17, 57:19, 64:16, 64:20, 87:8, 87:17, 88:7, 138:5, 138:24, 139:6, 139:9, 142:12, 152:23, 153:10, 154:6, 154:15 Priced - 51:10 Prices - 34:20,</p>	<p>61:14, 61:18, 63:11, 127:19 Pricing - 36:11, 39:3, 61:16, 62:17, 65:7, 66:21, 67:15 Principle - 60:2, 61:6, 61:15 Principles - 59:9, 59:17, 59:21, 60:12, 65:8 Prior - 6:8, 7:1, 153:24, 157:11 Problem - 47:18, 67:14, 88:25 Problematic - 64:21 Proceed - 4:24, 5:13, 6:18, 116:21 Proceedings - 121:22 Processes - 41:23, 118:20, 118:23, 124:13, 140:25 Producing - 29:7 Product - 62:21 Production - 24:19, 29:10, 30:9, 32:17, 79:17, 83:5, 92:3, 135:5, 150:12 Products - 31:22, 63:24 Profit - 14:19, 27:3 Profitability - 9:7, 9:15 Progressing - 145:4 Prohibited - 103:3 Project - 9:20, 47:21, 65:5, 66:3, 120:15, 120:18, 120:20, 125:16 Projected - 72:21, 77:4, 82:3, 82:4, 146:7 Projection - 154:7 Projections - 98:19, 102:14, 102:18 Prompting - 46:1 Propane - 51:6, 53:18 Proper - 37:21, 42:20, 42:23, 54:11, 114:19, 114:22, 121:14 Proportion - 25:19, 25:21 Proposal - 42:2</p>	<p>Proposals - 144:2, 150:17 Proposed - 28:16, 48:6, 48:8, 54:16, 55:1, 59:1, 99:7, 129:12, 143:3 Protected - 136:1, 149:17 Protection - 154:15 Provide - 2:13, 17:15, 59:15, 82:23, 83:13, 131:17 Provided - 19:2, 19:4, 19:9, 21:12, 21:23, 21:24, 22:4, 22:16, 22:19, 24:6, 24:7, 25:17, 27:18, 28:23, 30:22, 34:16, 98:20, 100:23, 101:2, 101:23, 101:25, 120:10, 121:6, 135:5, 135:11, 139:2, 139:11, 143:13 Provides - 69:22, 77:16, 109:5, 138:9 Providing - 66:10, 66:16, 72:1, 84:5, 120:21 Province - 26:14, 121:6 Provinces - 16:12 Province's - 48:23, 65:10 Prudent - 92:13 PUB - 98:22, 99:14 Public - 4:8, 4:12, 4:15, 159:16, 159:23, 162:16 Publicly - 9:19, 22:13, 23:11, 95:20 Published - 32:13 Pulp - 121:25 Pump - 48:17 Pumps - 31:4, 50:25, 51:1 Punish - 44:24 Punted - 125:1 Purchase - 2:8, 11:11, 11:12, 12:1, 29:16, 125:12, 127:11 Purchases - 1:15, 12:9, 28:4, 29:24,</p>	<p>48:8, 48:11, 48:13, 77:11, 77:12, 77:14, 78:12, 81:10, 81:19, 82:22, 83:8, 84:7, 85:12, 85:23, 86:4, 86:19, 87:4, 89:24, 90:6, 91:20, 92:5, 132:21, 141:24, 144:10, 145:1, 147:15, 152:1, 153:22, 155:8, 156:14 Purchasing - 26:13, 127:17, 155:20 Push - 23:18, 23:19, 23:20, 61:20 Putting - 7:24, 59:21, 96:2</p> <div style="border: 1px solid black; text-align: center; padding: 2px;">Q</div> <p>Quarterly - 155:4 Quebec - 7:12, 8:3, 8:5, 8:7, 8:10, 8:11, 8:19, 9:1, 9:3, 9:11, 9:12, 9:14, 9:21, 11:6, 12:2, 12:7, 12:16, 13:2, 13:7, 13:8, 13:12, 13:13, 13:14, 13:20, 13:22, 13:23, 14:6, 14:8, 14:23, 29:17, 42:1, 42:2, 42:6, 142:6 Questioned - 24:20 Questioning - 32:5, 52:23, 100:2 Quick - 34:3 Quickly - 45:18, 63:13, 123:19, 127:2</p> <div style="border: 1px solid black; text-align: center; padding: 2px;">R</div> <p>Raise - 65:1, 66:12 Raised - 78:10, 78:11, 112:4, 120:1 Raises - 66:20 Raising - 49:3, 57:3, 57:6 Range - 15:10, 21:25, 22:7, 22:15, 22:18, 86:6, 86:14, 88:2, 88:9, 96:10, 139:8, 151:3 Ranges - 21:5, 21:25</p>
---	---	---	--	---

<p>Rate - 30:23, 37:3, 37:16, 38:22, 39:6, 39:7, 40:16, 41:16, 42:4, 43:6, 44:5, 44:9, 44:11, 45:3, 45:6, 46:9, 46:15, 46:20, 47:24, 53:17, 55:6, 55:19, 56:3, 56:6, 56:20, 56:22, 56:24, 57:2, 57:7, 58:16, 60:22, 62:17, 67:2, 67:3, 67:5, 91:23, 107:18, 111:2, 111:5, 111:24, 114:6, 114:12, 115:1, 115:22, 118:2, 119:8, 122:1, 122:3, 129:7, 130:13, 131:3, 136:18, 137:1, 137:4, 143:6, 147:22, 151:10, 157:6</p> <p>Ratepayers - 4:6, 4:7, 38:1, 137:1</p> <p>Rates - 16:2, 28:19, 28:23, 33:13, 33:16, 36:22, 36:23, 36:24, 38:7, 38:23, 39:2, 39:10, 39:12, 40:10, 40:11, 41:3, 41:25, 42:12, 43:19, 43:23, 45:7, 45:15, 45:17, 45:20, 45:23, 45:24, 46:11, 46:12, 46:14, 46:22, 46:24, 49:4, 55:22, 56:7, 56:8, 56:10, 57:4, 58:6, 58:7, 59:7, 59:8, 60:6, 60:20, 61:19, 65:2, 67:7, 88:24, 89:1, 105:13, 116:20, 117:24, 118:7, 118:14, 119:13, 129:6, 129:21, 133:3, 136:13, 138:12, 142:16, 146:3, 146:8, 146:14, 147:2, 148:8, 149:3, 150:16, 151:1, 151:21, 152:17, 155:6, 155:11,</p>	<p>157:11, 157:19</p> <p>Rather - 1:16, 97:10</p> <p>Reach - 88:2, 90:22</p> <p>Reached - 119:17, 138:9</p> <p>Ready - 29:9, 29:11, 109:13, 115:2, 115:6, 115:8</p> <p>Realize - 73:1, 123:23</p> <p>Reason - 12:7, 19:16, 39:19, 65:8, 77:22, 78:8, 123:6</p> <p>Reasonable - 5:9, 21:14, 21:25, 24:25, 26:6, 95:24, 101:8, 102:18, 107:14, 145:16</p> <p>Reasonableness - 24:3, 102:25, 103:5, 103:15, 104:6</p> <p>Reasons - 37:19, 53:10</p> <p>Recalled - 160:12</p> <p>Recapture - 7:12, 7:16, 7:23, 68:20, 69:14, 71:23, 71:25, 72:12, 72:21, 73:8, 73:12, 74:7, 75:2, 75:13, 77:17, 78:14, 79:11, 80:11, 81:10, 81:18, 81:24, 82:16, 84:6, 84:10, 84:13, 85:18, 85:25, 86:17, 87:9, 87:14, 87:24, 90:7, 90:9, 133:20, 134:21, 135:17, 140:15, 141:20, 141:25, 153:21</p> <p>Receipt - 148:23</p> <p>Received - 99:18</p> <p>Receiving - 97:25, 98:8, 154:16</p> <p>Recent - 30:22, 81:8, 81:16, 132:9, 138:10, 139:2, 141:8</p> <p>Recently - 73:3, 111:12</p> <p>Recite - 17:8</p> <p>Recognize - 131:8</p> <p>Recognizing - 14:1</p>	<p>4</p> <p>Recommendations - 110:2, 110:16, 110:19</p> <p>Reconvene - 105:2, 105:24</p> <p>Recover - 43:15, 47:10, 67:1, 136:13</p> <p>Recovered - 28:16, 28:21, 98:25</p> <p>Recoveries - 108:1, 0</p> <p>Recovery - 37:20, 38:9, 40:20, 56:2, 57:18, 99:7, 104:17, 115:23, 125:15, 146:15, 151:15</p> <p>Redirect - 158:20, 158:24</p> <p>Reduce - 43:11, 108:11, 135:24</p> <p>Reduced - 43:4, 146:23</p> <p>Reducing - 16:22</p> <p>Reduction - 27:24, 30:24, 31:16, 31:17, 35:19, 43:10, 43:17, 43:21, 66:7, 66:9</p> <p>Redundancy - 31:1, 9</p> <p>Referred - 34:9, 72:20, 94:12, 126:25, 140:3, 140:6</p> <p>Refers - 94:16</p> <p>Refiling - 17:24, 18:4</p> <p>Refine - 93:21</p> <p>Reflect - 57:19, 113:12, 122:3, 135:11, 143:12, 150:17</p> <p>Reflected - 28:18, 34:7, 55:7, 55:15, 55:18, 84:22, 113:10, 113:15, 135:6</p> <p>Reflecting - 38:12, 58:23, 116:11, 143:7, 143:20</p> <p>Reflects - 55:10, 79:17</p> <p>Regards - 152:15</p> <p>Regie - 42:3</p> <p>Regional - 16:24</p>	<p>Regulatory - 2:17, 24:1, 41:23, 45:19, 59:17, 59:20, 60:2, 60:11, 103:11, 108:24, 117:6, 131:9, 131:13, 131:16, 140:25, 144:16, 144:17, 149:22</p> <p>Relation - 106:5</p> <p>Relationship - 3:12, 5:12, 5:14, 5:19</p> <p>Relative - 24:10, 139:15</p> <p>Relatively - 19:10, 56:11, 113:7, 127:1</p> <p>Reliability - 113:3</p> <p>Remainder - 128:1, 156:6</p> <p>Remaining - 44:1</p> <p>Remarks - 56:23, 56:24, 64:13</p> <p>Remiss - 162:19</p> <p>Replace - 36:19</p> <p>Replacements - 11, 3:9</p> <p>Report - 37:2, 41:16, 46:10, 46:12, 49:1, 56:21, 64:14, 67:12, 109:17, 109:20, 110:12, 112:12, 113:3, 114:7, 121:20, 140:4, 140:5</p> <p>Reported - 23:8, 160:17</p> <p>Reporting - 156:13</p> <p>Reports - 111:8</p> <p>Representation - 9, 5:1</p> <p>Representatives - 93:10</p> <p>Request - 98:21, 110:21, 143:12, 157:18</p> <p>Requested - 24:4, 82:8, 98:16</p> <p>Requesting - 98:22</p> <p>Require - 86:13, 124:14</p> <p>Required - 111:10, 116:23, 118:6, 136:13, 155:23, 160:8</p> <p>Requirement - 3:2, 0, 29:16, 116:22,</p>	<p>130:23, 133:2, 137:23, 154:14, 157:14, 158:2</p> <p>Requirements - 29, :13, 30:5, 30:7, 30:25, 31:1, 31:5, 31:16, 31:18, 66:5, 70:3, 70:13, 112:18</p> <p>Requires - 47:10, 47:14</p> <p>Research - 20:17, 21:2, 23:8, 36:21</p> <p>Reservation - 12:3, 13:6, 13:20</p> <p>Reserve - 30:16</p> <p>Reserves - 29:25</p> <p>Reservoirs - 127:1, 8</p> <p>Residential - 33:1, 33:15</p> <p>Resisted - 39:16, 39:21</p> <p>Resolved - 124:3, 126:7</p> <p>Resource - 36:16</p> <p>Resources - 3:25, 17:1</p> <p>Respect - 3:16, 9:6, 20:9, 25:13, 26:3, 45:19, 45:23, 52:3, 54:15, 56:1, 81:9, 89:21, 96:14, 112:18, 116:8, 117:17, 125:7, 126:21, 127:11, 128:3, 128:5, 129:5, 129:25, 130:12, 130:19, 132:1, 133:14, 133:16, 139:20, 139:25, 141:9, 142:5, 145:14, 148:22, 153:21, 154:3, 155:7, 156:9, 156:14, 162:10</p> <p>Response - 61:18, 72:20, 72:23, 88:15, 99:13, 142:18</p> <p>Result - 5:2, 5:8, 25:25, 92:10</p> <p>Resulted - 60:7</p> <p>Resulting - 59:22</p> <p>Results - 1:22, 5:15, 8:17, 56:16</p> <p>Retail - 42:23,</p>
---	---	---	--	---

<p>43:11, 48:6, 137:19 Retention - 36:23, 46:12 Return - 3:23, 157:8, 157:24 Revenue - 28:15, 36:6, 43:16, 61:23, 65:2, 66:12, 104:23, 123:11, 133:2, 137:23, 157:14, 158:1 Revenues - 40:22, 40:24, 60:20, 92:1, 106:20, 130:3, 130:12, 130:20, 131:23 Reviewed - 102:24 Reviewing - 19:5, 26:5, 122:25, 156:19 Reviews - 5:7 Revised - 144:2 Revision - 72:24 Revisit - 144:9 Revisiting - 109:20 RFI - 72:20, 98:21 Rider - 151:10, 151:14, 151:17, 151:19, 152:4, 152:6 Rise - 79:10 Risk - 25:24, 78:12, 78:16, 79:10, 85:14, 133:16, 136:1, 136:6, 137:18, 137:19, 138:1, 139:5, 139:8, 140:13, 140:16, 141:5, 141:23, 142:15, 144:18, 149:19, 150:8, 150:24, 151:11, 151:23, 151:24, 152:7 Risks - 79:6, 149:21 Road - 59:3 ROE - 157:15 Role - 4:20, 4:22, 4:23, 6:21, 7:1, 42:24, 55:24 Roles - 4:23 Room - 162:21 Round - 39:24 Row - 63:21 RSP - 55:2, 56:9, 108:5, 108:7,</p>	<p>108:10 Rule - 96:2, 128:13 Ruled - 144:6 Run - 29:21, 49:2, 64:15 Running - 29:12, 125:16 Rural - 63:15, 123:9, 123:12 Rush - 131:20</p> <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto;"> <p>S</p> </div> <p>Safe - 15:23 Sake - 80:9, 84:19 Sale - 5:23, 6:22, 8:12 Sales - 2:7, 146:21 Sat - 155:18 Save - 123:17 Savings - 25:18, 27:2, 27:23, 28:3, 28:12, 28:13, 28:18, 28:23, 48:10, 48:16, 58:23, 59:21, 72:1, 72:2, 87:8, 89:25, 90:5, 91:20, 92:6, 106:16, 106:18, 127:21, 128:4, 128:9, 128:18, 129:6, 129:15, 129:16, 131:23, 133:1, 135:25, 136:14, 139:20, 144:9, 144:11, 146:6, 147:14, 151:12, 154:4, 155:9, 156:14, 156:22 Saw - 75:3, 127:4 Scenario - 10:9, 38:2, 124:15, 143:20, 143:22, 144:8, 150:22 Scenarios - 137:13 Scene - 7:22, 7:23 Schedule - 114:4, 131:6, 131:16, 131:18, 159:20 Scheduling - 162:10 Scotia - 10:18, 10:23, 13:17, 14:25 Screen - 106:6 Scroll - 95:4, 95:8 Scrutiny - 4:8, 4:15 Second - 1:23,</p>	<p>63:5, 111:23, 129:25, 138:2 Secretary - 159:19 See - 10:21, 10:22, 19:13, 19:21, 21:18, 24:8, 24:13, 24:21, 31:12, 33:19, 36:1, 37:5, 37:6, 37:13, 37:14, 44:7, 47:16, 53:23, 57:1, 73:7, 101:6, 102:14, 102:16, 111:9, 122:11, 132:25, 136:11, 137:13, 154:2, 155:10 Seeing - 74:6, 148:19 Seek - 82:25 Seen - 8:17, 45:1, 101:22, 102:4, 132:9, 135:23 Sees - 125:17 Self - 148:22, 161:4 Sell - 6:18, 41:1, 88:5, 88:7, 127:15 Selling - 6:3, 6:6, 8:19, 127:20 Separate - 31:22, 62:14 Separately - 31:14, 100:20, 101:15 September - 19:13, 24:13, 91:15, 134:4, 134:7, 138:18, 141:15, 149:11, 152:22, 153:3, 153:9 Service - 6:9, 25:16, 27:18, 28:2, 38:7, 40:16, 58:19, 58:20, 59:9, 63:15, 71:16, 72:3, 77:6, 79:13, 79:14, 79:22, 80:24, 90:15, 104:14, 104:20, 105:8, 106:12, 109:4, 109:18, 110:5, 111:19, 112:2, 113:19, 114:12, 115:3, 115:12, 118:5, 118:18, 119:6, 119:9, 119:16, 120:2, 120:13, 121:5, 121:10, 122:15,</p>	<p>122:23, 122:25, 123:3, 123:8, 123:14, 124:2, 125:18, 135:21, 153:16 Services - 25:5, 25:11, 25:21, 26:8, 26:10 Servicing - 121:21 Serving - 2:6, 6:14, 120:21 Set - 28:19, 59:7, 59:8, 59:24, 117:2, 131:18, 148:21, 155:6, 155:11 Setting - 61:13, 91:24 Settled - 160:7 Settlement - 28:17, 48:5, 109:5, 122:13, 138:9, 143:7, 143:13, 143:21, 150:11, 150:17 Seven - 42:7, 49:7, 49:11, 49:17, 49:20, 49:24 Several - 93:10 Shape - 95:6, 156:1 Share - 27:1, 27:3, 127:24 Sharing - 3:13, 127:10 Shift - 71:6, 146:24 Shock - 107:18 Shorter - 86:10, 118:11 Shouldn't - 41:7, 59:8 Show - 12:23, 44:20, 86:9, 92:20 Showing - 19:20, 99:2, 101:25 Shown - 73:25, 74:8, 74:17, 75:2, 75:5, 85:13, 85:18, 86:17 Shows - 35:15, 53:13, 65:22 Shut - 30:3 Side - 104:4, 147:16 Signal - 37:9, 37:21, 40:19, 40:21, 42:21, 46:15, 46:18,</p>	<p>46:19, 57:5, 57:17 Signals - 67:8 Significant - 133:17, 136:24, 137:15, 138:1, 150:5 Significantly - 109:24, 133:3, 142:12 Similar - 20:13, 27:10, 29:2 Similarly - 129:25 Simple - 124:17 Simplistic - 114:11 Simply - 57:5 Single - 16:10, 57:13, 57:14, 84:2, 123:10 Sit - 150:21, 151:2, 159:18 Sitting - 137:17 Situation - 13:1, 32:15, 156:21 Six - 29:4, 37:8, 77:5, 148:6 Size - 20:20 Slide - 92:20, 94:15, 100:6 Slidedeck - 92:25, 93:2, 93:6 Slight - 30:24 Slightly - 14:15, 36:18, 157:24 Small - 119:9, 122:5 Smoothing - 58:6, 58:7, 130:13 Software - 134:2 Sold - 3:25, 6:10, 7:12, 7:16, 8:2, 8:5, 8:10, 9:11, 43:14, 88:8, 127:20 Soldiers - 74:19 Solely - 65:5, 66:3 Solicit - 1:15, 1:21 Somewhat - 23:14, 73:2, 160:22 Sooner - 36:2 Sounds - 95:24 Source - 13:22 Sources - 34:14, 35:13, 102:9 Space - 44:23 Spacing - 50:10 Specific - 35:6, 47:7, 110:2, 110:15, 110:18, 110:22, 117:2 Specifications - 10</p>
---	--	---	---	--

<p>1:5 Spent - 18:12, 98:10 Spill - 25:25 Spiral - 44:3 Spite - 56:11, 56:12 Splits - 50:25 Sponsored - 16:21 Spot - 86:11, 86:12, 88:3, 88:12, 89:8 Square - 50:10, 50:12 St - 50:11 Stability - 46:21, 47:24, 151:10, 151:16, 151:18 Stable - 56:11 Staff - 4:2 Stage - 42:9, 60:21, 156:8 Stale - 19:11 Stand - 24:20, 111:16 Standalone - 53:17, 53:18, 53:19 Standard - 4:13, 4:14, 94:4, 94:12, 95:25, 96:19, 97:1, 98:2, 98:5, 98:6, 99:25, 100:5, 100:8, 100:12 Stands - 53:10 Star - 4:10, 4:11 Start - 36:2, 36:5, 41:14, 73:10, 75:23, 118:19, 152:15 Started - 55:8, 58:12, 58:13, 76:24, 109:13, 109:16, 152:18 Starting - 40:13, 41:19, 125:18 Starts - 65:22 State - 1:23 Statement - 69:8 Statements - 62:11, 130:16 Station - 102:6 Stations - 100:17, 100:20, 101:14, 101:20 Status - 112:17, 141:13, 144:24 Steps - 160:8 Stone - 145:21</p>	<p>Storage - 127:12 Storing - 127:18 Stratton - 55:9 Strictly - 99:5, 151:19 Structure - 37:4, 44:11 Struggle - 96:25, 107:20 Struggles - 21:8, 35:20 Studied - 44:17 Studies - 32:2, 32:7, 32:8, 32:9, 32:11, 32:21, 32:22, 33:5, 33:12, 33:19, 118:5 Study - 22:25, 34:22, 34:23, 35:6, 41:15, 48:20, 54:12, 113:3 Sub - 94:2 Submissions - 148:20 Submits - 102:23 Submitted - 103:17 Substitution - 64:17 Sudden - 30:2, 147:4, 147:9 Sufficiently - 122:16 Suggested - 54:6, 102:11 Suggestion - 144:19 Suggestions - 108:17 Summer - 40:2, 40:6 Supplemental - 18:6, 18:8, 18:10, 27:21, 28:24, 29:4, 29:5, 77:10, 132:24 Supplementary - 73:2, 74:6, 74:8, 74:12, 75:6, 78:11, 104:10, 106:7 Supplier - 42:18 Supply - 11:5, 20:8, 22:5, 22:17, 23:23, 58:14, 60:23, 81:19, 91:7, 93:11, 101:3, 135:8, 136:2, 143:19, 143:21, 144:8, 152:16</p>	<p>Supporting - 70:20, 72:4 Suppose - 69:14, 84:2, 86:25 Surely - 59:11 Surplus - 88:4 Surprised - 83:12 Surrounding - 132:20 Swing - 107:4, 136:12, 137:24, 146:3, 147:8, 148:5 Swings - 137:9, 142:16 Switch - 63:9 System - 10:4, 11:13, 15:24, 29:25, 30:16, 31:9, 33:20, 36:6, 38:23, 39:23, 42:14, 43:25, 45:4, 66:11, 70:4, 112:17 Systems - 31:3, 48:24, 63:13</p> <div style="text-align: center; border: 1px solid black; width: fit-content; margin: 10px auto; padding: 2px 10px;"> T </div> <p>Table - 49:7, 49:9, 49:11, 49:15, 49:17, 49:22, 49:24, 50:1, 50:9, 52:20, 53:5, 53:11, 68:16, 74:9, 74:17, 75:6, 81:6, 81:15, 81:24, 84:6, 87:17, 104:9, 104:12, 105:2, 106:8, 106:15, 121:24 Tabular - 105:3 Tact - 72:8 Taking - 7:23, 33:3, 64:3, 73:10, 88:9, 90:4, 97:12, 98:6 Target - 67:2, 67:3, 90:22, 161:12 Targets - 86:17 Tariff - 116:6 Tariffs - 89:4, 89:15, 89:17, 116:10 Task - 107:24 Team - 103:25, 118:10, 119:10, 119:13 Technical - 62:13, 70:16, 101:5, 104:3, 112:13 Technologies - 46:3</p>	<p>Tecora - 141:7, 141:8, 141:9, 141:19 Tecora's - 141:17 Telling - 3:1, 44:22, 45:2 Tells - 35:2 TEMPLETON - 158:21 Ten - 43:21, 154:15, 154:16 Tentatively - 116:1 Tenth - 87:22 Term - 34:5, 34:8, 34:15, 35:16, 46:16, 55:12, 55:21, 55:22, 56:12, 56:14, 77:12, 77:14, 86:10, 130:5, 132:1, 132:15 Terms - 3:8, 26:10, 31:25, 72:11, 83:23, 84:6, 85:11, 90:9, 91:19, 97:16, 103:14, 105:5, 106:24, 108:23, 116:13, 125:14, 146:2, 154:10 Test - 17:24, 24:7, 52:16, 118:3, 128:6, 128:24, 147:1, 147:5, 152:16, 157:23 Tested - 51:23 Testing - 71:21, 84:22, 86:25, 134:6, 134:23 Thanks - 68:2, 160:16 That's - 5:18, 7:6, 7:20, 8:20, 8:21, 10:14, 10:17, 11:9, 12:8, 13:4, 16:3, 19:3, 21:21, 24:3, 25:7, 31:10, 32:25, 34:1, 35:13, 39:15, 42:9, 44:5, 44:18, 46:5, 47:1, 48:14, 48:25, 49:5, 50:1, 50:16, 51:1, 55:8, 57:23, 59:11, 59:12, 63:16, 66:22, 68:19, 69:1, 69:8, 69:14, 69:20, 71:16, 72:16, 73:3, 73:24, 74:8, 75:9,</p>	<p>77:22, 78:16, 79:4, 79:8, 79:17, 79:21, 79:25, 80:2, 81:22, 85:5, 85:18, 88:3, 88:8, 88:23, 88:25, 90:12, 90:17, 90:21, 94:5, 96:4, 97:15, 97:21, 98:7, 99:7, 99:10, 101:9, 101:23, 101:24, 105:1, 108:5, 109:5, 111:21, 112:19, 113:22, 113:24, 114:3, 116:4, 116:5, 119:3, 121:3, 121:19, 122:14, 123:13, 124:9, 125:23, 130:5, 130:7, 131:3, 131:10, 133:9, 135:10, 135:11, 135:12, 136:5, 137:21, 138:15, 138:20, 139:11, 140:20, 143:24, 144:4, 144:14, 145:23, 146:20, 147:7, 149:4, 151:9, 154:20, 158:11, 160:3, 161:8 Therein - 61:16 There'll - 91:10 There's - 1:4, 3:20, 4:8, 4:15, 7:4, 9:25, 10:24, 14:9, 14:14, 14:22, 16:15, 17:2, 17:14, 19:8, 20:7, 25:14, 25:24, 26:22, 28:22, 31:22, 31:25, 33:4, 33:8, 34:14, 38:21, 39:4, 41:4, 41:11, 42:2, 42:11, 44:20, 45:7, 46:20, 53:7, 53:24, 60:18, 62:19, 66:17, 70:16, 72:13, 73:11, 73:22, 74:13, 82:21, 84:16, 84:21, 85:14, 91:5, 94:6, 94:15, 96:16, 99:16, 99:20, 105:3, 111:9, 112:6, 113:2, 113:24, 114:1, 116:22, 117:14, 119:9,</p>
---	---	--	---	---

<p>122:5, 122:12, 123:20, 125:17, 128:17, 130:23, 132:5, 132:6, 133:16, 133:18, 137:14, 142:7, 146:5, 151:8, 152:7, 160:19 These - 3:2, 11:1, 12:25, 17:13, 19:7, 24:10, 28:18, 41:25, 47:20, 47:25, 51:19, 54:10, 58:23, 65:9, 70:24, 73:1, 73:5, 78:8, 88:9, 93:21, 98:11, 125:9, 149:20, 150:7, 161:4 They'd - 92:4 They'll - 19:12 They're - 2:12, 4:16, 10:22, 10:23, 12:20, 14:2, 14:16, 18:13, 19:17, 24:11, 41:9, 42:7, 42:9, 46:4, 47:2, 63:14, 63:23, 67:4, 88:6, 88:9, 89:20, 97:19, 97:20, 97:21, 98:5, 118:20, 134:3, 137:10, 145:2 They've - 53:9, 130:16 Third - 112:1, 112:4 Three - 35:8, 63:21, 72:12, 75:24, 77:7, 111:21, 114:11, 142:2, 159:11 Thumb - 96:2 Thursday - 33:7, 159:21 Tiered - 45:4 Tight - 148:12, 158:9, 158:10 Time - 7:17, 8:22, 9:9, 9:10, 9:16, 10:5, 10:17, 15:15, 16:2, 25:1, 31:23, 32:13, 38:16, 38:17, 38:22, 39:10, 39:12, 39:15, 40:10, 40:13, 41:23, 42:12, 42:14, 45:7, 47:18, 58:20,</p>	<p>58:23, 59:2, 60:21, 69:18, 77:2, 77:5, 77:18, 78:25, 79:8, 80:7, 86:8, 88:17, 93:22, 95:20, 99:8, 105:18, 105:20, 108:6, 110:9, 112:19, 114:4, 115:12, 117:2, 117:23, 122:22, 123:2, 123:17, 124:13, 127:19, 128:12, 131:8, 131:22, 132:8, 134:5, 137:14, 138:23, 145:8, 150:21, 151:2, 156:19, 160:17, 162:15 Timeframe - 78:2 Timeline - 76:25, 116:23, 118:12, 121:7, 149:5 Timelines - 158:9 Timely - 29:9 Times - 8:18, 15:17, 30:1, 39:4, 117:13 Timetable - 116:13 Timing - 78:3, 78:4, 78:22, 113:8, 133:8, 140:21, 150:10, 152:21, 154:11, 161:6 Title - 49:5 Today - 137:9, 161:17 Todd - 16:17 Took - 47:22, 52:18, 155:5 Tools - 1:25, 2:23 Top - 73:7, 104:11 Topic - 29:3, 157:5 Total - 68:19 Towards - 56:1, 58:12, 60:20, 135:9, 161:14 Track - 97:9 Tracking - 97:15, 97:19, 97:20 Tracks - 98:9 Transact - 2:1, 2:24 Transaction - 3:13, 14:19 Transactions - 3:17, 16:23</p>	<p>Transcript - 32:3, 134:15 Transferred - 7:19 Transmission - 16:25, 20:18, 21:24, 22:4, 89:4, 89:15, 89:17, 96:5, 97:18, 97:25, 98:13, 99:6, 101:17, 103:16, 116:6, 116:9, 116:10, 120:12, 120:22, 120:23, 122:7, 125:13 Transparent - 12:24 Treat - 84:4 Treated - 120:13, 120:19 Treatment - 122:6 Trending - 33:14 Trust - 134:13 Trusts - 5:6 Turbine - 113:8 Turn - 68:14, 74:9, 92:17, 94:20, 94:22, 95:14, 104:8 Turns - 79:21, 80:7, 85:24 Tweaking - 109:22, 110:1, 110:10 Two - 22:6, 22:11, 45:4, 59:24, 62:18, 63:20, 118:20, 118:23, 136:20, 140:12, 140:17, 159:17 Types - 19:5, 103:25</p>	<p>93:7, 111:4, 129:10 Undertaken - 33:5 Undertaking - 33:6, 33:24, 34:1, 34:4, 35:15, 36:1, 80:22, 82:7, 83:22, 84:2, 84:4, 85:9, 85:11, 95:10, 95:14, 95:16, 99:10, 140:5 Undertakings - 16:17 Unfolding - 156:20 Unintelligible - 117:23 Unit - 67:4 University - 48:22 Unless - 47:12, 163:7 Unlike - 13:1 Unreasonable - 10:8:12 Unsure - 131:1 Unused - 71:6 Upcoming - 108:21, 112:25, 126:21 Update - 111:9, 111:23, 111:24, 112:7, 112:11, 112:15, 115:1, 126:5, 126:8, 139:2, 153:24, 154:7, 155:23, 157:1 Updated - 94:2, 113:18, 114:6, 143:11, 150:3, 152:23, 153:10 Updates - 24:21, 91:10, 109:20, 115:2 Updating - 113:11 Upward - 33:14, 33:18 Usage - 31:12, 33:22, 35:19, 43:18, 43:22, 50:23, 52:13 Used - 43:14, 48:12, 63:1, 63:7, 101:9, 102:12, 130:12, 130:24, 131:3, 135:12, 138:11 Uses - 50:22, 55:16, 65:13 Using - 55:11, 61:22, 97:5, 97:19,</p>	<p>102:10, 129:5, 144:7 Utilities - 16:23, 20:23, 23:2, 23:9, 42:11, 51:16 Utilities' - 100:14 Utility - 2:5, 5:20, 47:5, 66:24</p> <p style="text-align: center;">V</p> <p>Valuable - 36:15 Value - 4:4, 4:17, 12:14, 25:16, 27:17, 41:1, 66:13, 97:14, 97:23, 98:1, 127:23, 132:6 Variability - 40:1, 56:10, 56:12, 150:24 Variable - 41:25, 42:3, 147:10, 147:20 Variance - 136:2 Variations - 41:11, 45:8 Varied - 54:7, 54:9 Vary - 42:13, 60:24, 133:3 Vehicles - 36:25 Vein - 29:2 Versus - 4:22, 5:5, 9:11, 21:7, 25:21, 70:18, 76:6, 100:15, 102:6, 121:2, 123:10, 147:10, 151:1 View - 73:20, 119:17, 122:17 Viewed - 64:1, 120:18 Violating - 84:9 Vision - 110:14 Viva - 161:5 Voce - 161:5 Volumes - 72:21</p> <p style="text-align: center;">W</p> <p>Waiting - 131:14, 134:3 Wants - 39:6 Wash - 105:6 Wasn't - 4:12, 8:1, 9:5, 38:16, 55:7, 77:17, 86:22, 86:23, 95:23, 98:20, 100:25,</p>
---	---	--	---	--

<p>149:10, 151:18, 151:19 Water - 33:21, 53:12, 53:14, 53:21, 54:2 Ways - 37:23, 67:13 Wealth - 21:9 We'd - 63:4, 91:23, 91:25, 118:13, 123:9, 154:17 Week - 150:13, 161:11 Weeks - 91:9, 114:18, 127:7 We'll - 19:13, 24:13, 83:19, 105:22, 113:5, 113:6, 121:7, 124:12, 144:18, 145:9, 150:3, 153:15, 162:8 We're - 2:5, 2:7, 2:8, 7:6, 10:2, 10:7, 12:14, 25:15, 26:11, 29:2, 35:4, 41:14, 44:24, 45:17, 47:17, 47:23, 51:13, 55:12, 58:21, 65:20, 67:1, 74:5, 75:22, 78:20, 80:4, 84:8, 84:21, 90:2, 90:21, 91:16, 108:4, 108:17, 109:19, 112:13, 117:19, 118:9, 123:17, 131:2, 137:12, 146:3, 156:1, 156:3, 161:13, 163:6 Weren't - 71:1, 100:10 We've - 18:22, 19:1, 24:2, 35:6, 35:10, 36:9, 36:17, 37:2, 46:9, 46:10, 48:20, 58:4, 59:19, 62:22, 66:22, 66:24, 84:14, 88:20, 96:19, 98:9, 98:25, 99:20, 102:4, 111:21, 115:21, 116:20, 131:2, 135:12, 135:23, 142:11, 152:18, 156:9, 159:8, 161:2</p>	<p>What's - 3:22, 4:8, 18:24, 25:16, 30:18, 35:14, 36:5, 36:7, 42:23, 45:14, 57:10, 71:14, 75:5, 75:11, 78:15, 85:1, 98:11, 103:13, 105:5, 110:14, 160:20 Wheeling - 10:21, 10:23, 14:5, 14:8, 14:9, 14:15, 88:23, 89:1 Whereas - 110:11, 113:13, 119:11 Whereby - 45:4, 46:23 Whole - 9:19, 10:9, 23:14, 101:16 Who's - 23:5 Will - 3:7, 3:8, 3:17, 4:1, 18:15, 25:10, 25:14, 26:5, 26:19, 26:20, 27:3, 27:6, 28:19, 28:24, 29:7, 33:13, 33:20, 35:12, 40:13, 42:18, 42:19, 42:21, 42:22, 45:17, 50:25, 59:23, 60:1, 65:22, 82:10, 85:9, 89:22, 90:19, 90:23, 90:25, 96:5, 96:17, 102:22, 102:23, 103:9, 109:22, 110:7, 111:18, 112:11, 113:2, 115:6, 115:8, 115:16, 118:17, 118:19, 120:9, 123:5, 124:14, 125:11, 126:1, 127:10, 127:16, 130:12, 131:3, 133:19, 133:20, 134:22, 134:24, 135:24, 138:17, 140:23, 141:1, 152:22, 153:4, 159:21, 162:9 Williams - 86:5, 113:4 Willing - 88:7 Winter - 40:2, 40:4, 40:6, 146:19 Wisely - 36:16</p>	<p>Witness - 124:22 Witnesses - 102:2, 160:12 Won't - 103:2, 103:4, 123:15, 135:2, 149:7, 160:21 Wood - 63:20 Woodstove - 51:6 Words - 69:11 Work - 5:14, 23:15, 24:11, 27:10, 42:22, 44:11, 46:8, 109:14, 109:16, 119:11, 160:5 Worked - 161:8 Working - 16:19, 18:13, 135:9, 154:16, 160:1 Works - 16:19, 26:3 World - 97:9 Worth - 60:10, 64:6, 96:4 Worthy - 20:4 Wouldn't - 2:14, 20:2, 27:16, 44:9, 46:18, 46:19, 48:1, 51:21, 83:15, 89:23, 89:25, 100:16, 119:5, 130:5, 134:6, 145:21 Written - 48:22, 161:6</p> <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto;"> <p>Y</p> </div> <p>Year - 17:25, 19:11, 31:6, 39:7, 39:23, 40:1, 55:4, 56:6, 56:12, 56:13, 77:13, 78:21, 109:7, 118:3, 130:6, 146:8, 147:1, 147:5, 152:17, 157:23 Years - 7:11, 59:24, 72:13, 93:16, 120:16, 128:6, 128:25 Yesterday - 3:5, 19:19, 33:7, 56:5, 70:18, 71:20, 87:16, 126:6, 126:23, 127:4, 161:9, 161:16 You'd - 28:11,</p>	<p>28:20, 30:5, 30:8, 38:9, 86:24, 87:1, 87:9, 87:20, 106:19, 108:6, 134:1, 145:15 You'll - 40:8, 57:1, 126:7 YOUNG - 160:15, 161:19, 161:23, 162:5, 162:11 You're - 5:9, 9:8, 15:15, 16:3, 17:7, 17:9, 23:18, 26:15, 27:17, 34:12, 35:18, 40:7, 41:6, 43:8, 44:1, 44:22, 44:23, 45:2, 45:9, 47:5, 50:12, 51:13, 51:15, 59:9, 63:19, 63:24, 67:11, 72:1, 74:16, 78:10, 85:16, 87:3, 87:7, 87:22, 88:18, 89:5, 89:9, 89:12, 92:9, 95:25, 96:15, 97:4, 103:11, 111:4, 116:1, 122:11, 122:25, 123:24, 124:21, 128:14, 137:17, 137:23, 141:2, 142:21, 142:22, 147:4, 149:17, 155:7, 155:19 Yours - 59:6 You've - 3:2, 13:7, 13:24, 15:24, 15:25, 17:8, 29:24, 29:25, 30:12, 31:4, 34:24, 38:11, 49:6, 52:4, 57:11, 57:15, 62:16, 62:23, 66:20, 72:3, 84:12, 89:14, 94:22, 103:9, 107:5, 110:24, 111:1, 111:3, 112:4, 112:5, 112:21, 124:19, 133:1, 133:4, 139:15, 143:1, 147:21, 162:24</p> <div style="border: 1px solid black; text-align: center; width: fit-content; margin: 10px auto;"> <p>Z</p> </div> <p>Zero - 28:11, 73:16 Zoom - 10:12</p>	
---	---	--	---	--