

1 STATE OF NEW HAMPSHIRE  
2 SITE EVALUATION COMMITTEE

3  
4 November 17, 2017 - 2:24 p.m. DAY 61 AFTERNOON  
5 49 Donovan Street PUBLIC/REDACTED SESSION  
6 Concord, New Hampshire

7 {Electronically filed with SEC on 11-29-17}

8 IN RE: SEC DOCKET NO. 2015-06  
9 Joint Application of Northern  
10 Pass Transmission, LLC, and  
11 Public Service Company of  
12 New Hampshire d/b/a Eversource  
13 Energy for a Certificate  
14 of Site and Facility.  
15 (Hearing on the merits)

16 PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:  
17 Chrmn. Martin P. Honigberg Public Utilities Comm.  
18 (Presiding as Presiding Officer)

19 Cmsr. Kathryn M. Bailey Public Utilities Comm.  
20 Dir. Craig Wright, Designee Dept. of Environ. Serv.  
21 Christopher Way, Designee Dept. of Resources &  
22 Economic Development  
23 William Oldenburg, Designee Dept. of Transportation  
24 Patricia Weathersby Public Member

ALSO PRESENT FOR THE SEC:

Michael J. Iacopino, Esq., Counsel to the SEC  
(Brennan, Caron, Lenehan & Iacopino)  
Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Susan J. Robidas, NH LCR No. 44

## I N D E X

1  
2  
3 WITNESS: WILLIAM FOWLER  
4

5	EXAMINATION	PAGE
6	Cross-examination by Mr. Pappas	29
7	Cross-examination by Mr. Cote	41
8	Cross-examination by Mr. Needleman	49

9  
10 QUESTIONS BY SUBCOMMITTEE AND SEC COUNSEL:

11 Commissioner Bailey 78

12 Mr. Iacopino 84

13  
14  
15 Redirect Examination by Mr. Anderson 89  
16  
17  
18  
19  
20  
21  
22  
23  
24

1 (CONFIDENTIAL SESSION [Pgs. 1 through 27]  
2 SUBMITTED UNDER SEPARATE COVER)

3 \* \* \* \* \*

4 PUBLIC/REDACTED SESSION

5 (Hearing resumed at 2:53 p.m.)

6 CHAIRMAN HONIGBERG: Mr. Pappas,  
7 you may proceed.

8 MR. PAPPAS: Thank you, Mr.  
9 Chairman.

10 CROSS-EXAMINATION

11 BY MR. PAPPAS:

12 Q. Good afternoon, Mr. Fowler, again. I'm going  
13 to skip around a little bit because much of  
14 what I was going to ask you has already been  
15 covered. I want to start by following up on  
16 something you testified about this morning  
17 under CASPR. And you indicated that the year  
18 a resource enters the Forward Capacity Market  
19 has some impact on the price in this second  
20 auction. Do you recall that?

21 A. Yes.

22 Q. Okay. Would I be correct in saying that if  
23 in the second auction under CASPR, if a  
24 resource such as Northern Pass comes in with

1           1,000 megawatts, it's going to replace  
2           something that's retiring of 1,000 megawatts?  
3           Right?

4    A.    Right.

5    Q.    So in that situation, would it have any  
6           impact on the price in the Forward Capacity  
7           Auction?

8    A.    In that specific auction, the way this works,  
9           it shouldn't have any price on it in that  
10          auction.

11   Q.    So if Northern Pass comes in on the second  
12          auction with 1,000 megawatts and replaces  
13          1,000 megawatts and has no impact on price,  
14          would that mean that there would be no  
15          capacity market benefits, if that's how  
16          Northern Pass gets into the Forward Capacity  
17          Auction?

18   A.    If it is just swapping one for one, then the  
19          total amount of capacity stays the same on  
20          the system, so there would be no large  
21          benefits from that.

22                 I think I mentioned to Mr. Anderson that  
23          there could be some effects down the road as  
24          we have now a price-taking generator in years

1           4, 5 or 10 that may be offering at less than  
2           an existing resource that might be retiring.  
3           But the bulk of the impact is eliminated  
4           through CASPR.

5    Q.    And if Northern Pass came in over a period of  
6           years, let's say it came in, you know, at  
7           330 megawatts in year 1 and 330 in year 2 and  
8           the rest in year 3, would that delay the full  
9           capacity market benefits from Northern Pass  
10          entering the Capacity Market?

11   A.    Absolutely, yes.  Yeah.

12   Q.    Okay.  Let me ask you a couple questions to  
13          follow up on your testimony regarding  
14          capacity deliverability.

15                 Now, if ISO-New England does the test  
16                 you described and it's determined that a new  
17                 resource like Northern Pass, in order to run  
18                 and have all the other generators run as  
19                 well, if it can't run fully, and the other  
20                 generators also run fully, can one of two  
21                 things occur:  Either Northern Pass does some  
22                 transmission upgrades to allow it and the  
23                 other generators to run fully -- is that one  
24                 option?

1 A. Yes.

2 Q. And a second option would be that perhaps not  
3 all 1,000 megawatts would qualify, but let's  
4 say some amount less, whatever amount less,  
5 in order to allow all the generators to run  
6 fully; correct?

7 A. Yes. Correct.

8 Q. Okay. Now, under that first option, if after  
9 ISO-New England does the test and it's  
10 determined that in order for Northern Pass to  
11 enter the Capacity Market it has to do some  
12 upgrades, would, in your opinion, the cost of  
13 those upgrades be included in the MOPR  
14 calculation to determine Northern Pass's  
15 minimum bid?

16 A. Yes, they would.

17 Q. Okay. And you indicated this morning that  
18 you thought, in your opinion, you thought it  
19 was unlikely that all 1,000 megawatts from  
20 Northern Pass would be able to enter and have  
21 all the other generators run at full  
22 capacity; correct?

23 A. Correct.

24 Q. Have you done any analysis to determine

1 perhaps if or what transmission upgrades  
2 would be necessary in order to allow Northern  
3 Pass, at 1,000 megawatts, to run and all the  
4 other generators to run?

5 A. I have not done any specific analysis on  
6 that. But it would require changes to the  
7 large interface, I believe, "North-South  
8 Interface" it's called, kind of the  
9 Massachusetts, New Hampshire, Vermont border.

10 Q. Do you have any sense of what that might  
11 cost?

12 A. No, I don't.

13 Q. Okay. And am I correct that it's ISO-New  
14 England who would do this test that you  
15 talked about?

16 A. Correct.

17 Q. All right. Let me just follow up on this  
18 cost issue in the MOPR, make sure I  
19 understand your testimony.

20 Would I be correct in saying you believe  
21 the following costs for Northern Pass would  
22 have to be included in the MOPR: Certainly  
23 the cost to build the northern transmission  
24 line in New Hampshire; correct?

1 A. Yes.

2 Q. How about the cost to build the transmission  
3 line in Canada to connect to Pittsburgh, New  
4 Hampshire?

5 A. Yes.

6 Q. And in the System Reliability Study that was  
7 done, were any additional costs identified in  
8 that, that you know of?

9 A. There were quite a few upgrades required just  
10 to do the minimum interconnection that I  
11 spoke of earlier.

12 Q. Would those costs be included?

13 A. They should be included, yes.

14 Q. The cost of any upgrades for the  
15 Deliverability Study as well?

16 A. Correct.

17 Q. And you said a moment ago the cost if new  
18 generation is needed to support the surplus.

19 A. Correct.

20 Q. All right. Are there any other costs that  
21 you think should be included in the MOPR that  
22 have not been included in the Applicant's  
23 analysis?

24 A. No, those are the ones that I'm aware of.



1 Q. Okay. Finally, let me just ask you a few  
2 questions about another topic you mentioned  
3 in your prefiled testimony, and that's the  
4 non-performance penalty.

5 A. Okay.

6 Q. So am I correct that in the Applicant's  
7 analysis, LEI assumed that shippers would be  
8 price-takers in the Forward Capacity Auction?

9 A. I believe that's how they modeled it, yes.

10 Q. And as a result, they didn't consider the  
11 risk or any cost for the non-performance  
12 penalty in their MOPR analysis; is that  
13 right?

14 A. I don't know if that was in the MOPR analysis  
15 or not. I think that would just be in the  
16 risk assessment for the overall project.

17 Q. Okay. Now, as I understand it, if there's a  
18 reserve shortage at any time, and let's say  
19 Northern Pass is in the Forward Capacity  
20 Market, they have a CSO. If they can't  
21 provide during that time, that's when the  
22 penalty is assessed.

23 A. Correct.

24 Q. The first bid -- or the first Forward

1 Capacity Auction that Northern Pass could bid  
2 into would be probably February of 2019?

3 A. It's possible they're in there for February  
4 of 2018. That's confidential. I don't know,  
5 so --

6 Q. All right. That's fair enough. But if  
7 they're in February 2018, the non-performance  
8 penalty would kick in 3-1/2 years later.

9 A. Correct.

10 Q. And that would be \$3,500 per megawatt hour?

11 A. Right.

12 Q. Okay. So, for every megawatt hour -- let's  
13 say they couldn't deliver a 1,000 megawatts  
14 for an hour. It would cost them \$3.5  
15 million?

16 A. That sounds right, yeah.

17 Q. All right. Now, you had testified in your  
18 direct testimony about a couple events, one  
19 in 2013 and one in 2014, when HQ had  
20 curtailed deliveries to New England. Do you  
21 recall that?

22 A. Yes.

23 Q. At that time there was no non-performance  
24 penalty that would apply; correct?

1 A. Correct. Well, there was a different  
2 construct in effect on that date, but it was  
3 not the same one. It wasn't the \$3500.

4 Q. Okay. Now, you also testified that you would  
5 expect HQ to service first its customers in  
6 Canada and curtail exports if necessary. Do  
7 you recall that?

8 A. Yes.

9 Q. Is that -- are you aware of any documents  
10 that require HQ to service first its domestic  
11 obligations?

12 A. No.

13 Q. That's an assumption you make?

14 A. That's right.

15 Q. Okay. Are you aware of whether or not HQ  
16 would incur any penalty in Canada if it had  
17 to curtail its domestic obligations in favor  
18 of exports?

19 A. No, I'm not aware of any.

20 Q. Okay. Now, when you said or testified that  
21 NPT would likely factor in to its -- factor  
22 in a non-performance penalty, if you will,  
23 the risk or cost of that, are you aware -- do  
24 you have any rule of thumb in mind or any

1 sense of what others do to factor that in?

2 A. Generally you would look at your own risk of  
3 non-performance, how likely it would be that  
4 you could not deliver in some certain time  
5 frame, and then you could quantify the  
6 potential penalties associated with that and  
7 then just do a risk assessment around that.  
8 But that's very, very project-specific.

9 Q. So it's essentially your testimony that you  
10 would factor that in, but you don't have any  
11 quantification of that.

12 A. Correct.

13 Q. Okay. Fair enough.

14 Finally, you were asked this morning  
15 questions about potential retirement of  
16 capacity resources. Do you recall that?

17 A. Yes.

18 Q. And you weren't asked, and I'm not going to  
19 ask you to identify any potential resources.  
20 But do you have in mind, or do you have a  
21 view of sort of the magnitude of retirement  
22 if Northern Pass were to clear and qualify in  
23 the Capacity Market?

24 A. Sure. So if they could qualify and get

1 through all the hurdles involved to do that  
2 and they clear, you know, then the result of  
3 the market is the price going down in that  
4 region. And, you know, a 1,000 megawatts  
5 swing in Northern New England could easily  
6 swing the price by \$4 or \$5, and it would be  
7 a very substantial change on its own.

8 So, you know, what's the price response  
9 to that? Well, you know, again, that's very  
10 project-specific. And individual companies  
11 will have to decide that on their own. But  
12 there's quite a few megawatts of relatively  
13 old and inefficient resources located in the  
14 three northern New England states. So there  
15 could easily be 1,000 megawatts that retire  
16 in response to that. You know, that's an  
17 easy order of magnitude.

18 Q. Okay. And those are located in Maine, New  
19 Hampshire and Vermont?

20 A. Correct.

21 Q. And you had indicated that obviously if they  
22 retired, the locations they're in, there  
23 would be some job loss, some revenue loss and  
24 tax loss.

1 A. That would be the expectation, yeah.

2 Q. Okay. Are you able in a public session to  
3 narrow that geographic scope beyond northern  
4 New England? And if you aren't, that's fine.

5 MR. NEEDLEMAN: Mr. Chair,  
6 before we go any further, I'll just object to  
7 this because I think this is essentially  
8 calling for a new analysis at this point. This  
9 is certainly something that could have and  
10 should have been done.

11 CHAIRMAN HONIGBERG: Mr. Pappas.

12 MR. PAPPAS: I don't think it's  
13 a new analysis. I think it's simply following  
14 up on what he testified this morning.

15 CHAIRMAN HONIGBERG: Let's get  
16 an answer to the limited question that you  
17 asked, whether it could be done  
18 non-confidentially.

19 A. Yeah, I think that there are -- if you try to  
20 look at the oldest, most inefficient plants  
21 on the system in northern New England, there  
22 are certainly those primarily in New  
23 Hampshire and Maine that would fall into that  
24 bucket. I think Vermont has less because

1           they really don't have much generation on  
2           their system at all to begin with. So I'd  
3           say most of that would be New Hampshire and  
4           Maine.

5 BY MR. PAPPAS:

6 Q.    Okay. Thank you very much.

7                           MR. PAPPAS: I have no other  
8           questions.

9                           CHAIRMAN HONIGBERG: Who has  
10          questions? Anyone from the Municipal Group? I  
11          see heads shaking.

12                          MR. WHITLEY: None, Mr. Chair.

13                          CHAIRMAN HONIGBERG: Mr.  
14          Reimers? He's shaking his head. Cat's got  
15          everybody's tongues.

16                          Mr. Cote?

17                          MR. COTE: Yes, I do have  
18          questions. Should I proceed?

19                          CHAIRMAN HONIGBERG: Oh, yes,  
20          you may.

21                          CROSS-EXAMINATION

22 BY MR. COTE:

23 Q.    Hello, again, Mr. Fowler.

24                          MR. COTE: And Dawn, could I

1           have Apple TV, please?

2   BY MR. COTE:

3   Q.   Mr. Fowler, do you see something on your  
4       monitor?

5   A.   I do.

6   Q.   So I'd like to start by taking a look at --  
7       this is supplemental prefiled testimony of  
8       Mr. Quinlan.  And in particular, I have a  
9       couple of questions about this paragraph,  
10      starting with Line 13.  And he's discussing  
11      opportunities for NPT to enter the -- bring  
12      low-cost hydro power, and then he mentions  
13      the Mass. RFP as one of those opportunities.  
14      And I assume you're generally familiar with  
15      the Mass. RFP.

16  A.   Yes, I am.

17  Q.   So with respect to this paragraph, how does  
18      the delivery of low-cost power, I assume to  
19      Massachusetts residents, affect the rest of  
20      the market, assuming that they do sell some  
21      or all of their power into the Mass. RFP?

22  A.   So it depends on a lot of things.  First, you  
23      know, does it qualify for a Capacity Credit  
24      and can it get into the Capacity Market?  So,



1 just because they get a Massachusetts  
2 contract doesn't mean they can overcome the  
3 hurdles that I mentioned before on becoming a  
4 capacity resource. So if they were a  
5 capacity resource, then, yes, they would have  
6 those, the impacts on the Capacity Market  
7 that we've been discussing.

8 On the energy side, you know, that  
9 depends again on how the contracts are  
10 structured. And I'm not too sure how they  
11 are going to be structured. The impact on  
12 energy prices, you know, there could be a  
13 couple very big ones. First there's the  
14 contract costs and how much money is being  
15 paid under those contracts. Presumably that  
16 money would come from Massachusetts  
17 ratepayers. That's my presumption, at least.  
18 And then the impacts on the rest of the  
19 system would depend on how the actual energy  
20 was offered into the daily markets. And if  
21 they offered very low, then that could have  
22 an impact on pushing prices down; if they  
23 offered high, it would go the other  
24 direction. I have no idea what the

1 requirements of that contract are for energy  
2 offers, if there are any at all. So it would  
3 depend on how they offered into the daily  
4 markets on whether there is any impact and  
5 what it would be like.

6 Q. So you don't read that as the low-cost energy  
7 would benefit only the Massachusetts  
8 customers?

9 A. Yeah, I can't really speculate on what they  
10 were trying to say here. I think that --  
11 yeah, it may be high cost, it may be low  
12 cost. I can't really tell that at this  
13 point.

14 Q. Okay. I'd like to discuss a little bit more  
15 about clearing prices. And this exhibit is  
16 when Ms. Frayer was here on Day 15. Looks  
17 like June 13. And regarding her most recent  
18 report that was released or prepared in  
19 December of 2016 and then FCA 11 that I  
20 believe occurred shortly after her report was  
21 issued, the difference in her prediction and  
22 the actual clearing prices was approximately  
23 a dollar. Does that sound right to you, from  
24 what you recall?

1 A. Yeah, I don't have the whole context of this  
2 discussion in front of me. But that probably  
3 sounds reasonable.

4 Q. I could go back and look, but I believe she  
5 predicted FCA 13 was going to be \$6.23, and  
6 it was approximately \$5.20-something.

7 A. Okay.

8 Q. So how difficult is it to actually predict  
9 ahead clearing prices in the Forward Capacity  
10 Auctions?

11 A. Well, you know, there's a lot of different  
12 schools of thought on that. I think to start  
13 with, yes, it is difficult to make that  
14 prediction accurately. There's a lot of  
15 factors that go in and out of that. But some  
16 of them are definitely indicative that when  
17 you go short, then prices go high, and when  
18 the pool is long in surplus, then prices go  
19 low. I think that economists would also say  
20 that over the long run, as you get to  
21 equilibrium, if we ever get there -- we've  
22 been at this for 15 years and still haven't  
23 got there -- but if we ever get to  
24 equilibrium, then the economists would say

1 the market should clear around Net CONE,  
2 which is about \$8 for our market right now.

3 But as far as, you know, individual  
4 predictions of any one year, it's very  
5 difficult. You can use these indicative  
6 ideas and kind of move the ICR curves and  
7 demand curves around and get, you know, some  
8 indicative thoughts on that. But otherwise,  
9 you have to predict what everybody in the  
10 market is going to bid, how they're going to  
11 react to things, and that actually is very  
12 difficult.

13 Q. Okay. The Forward Capacity Market is a large  
14 chunk of money over the course of a year,  
15 isn't it?

16 A. Absolutely.

17 Q. So, as far as economic predictions, how much  
18 does a difference of \$1 make over the course  
19 of a year and the dollar value of that  
20 market?

21 A. One dollar across our pool -- and you can do  
22 this math pretty easily. We have about  
23 34,000 megawatts of capability that we pay  
24 for. So if we're paying \$1 per kilowatt --

1           and that's 34 million kilowatts -- so, it's  
2           \$34 million a month times 12. So that's  
3           about \$370 million a year.

4   Q.    There was also discussion, and I won't really  
5           bring up the exhibits, but the Forward  
6           Capacity Market is somewhat tied to the  
7           Installed Capacity Requirement?

8   A.    Yes.

9   Q.    And would you agree that that number is  
10          influenced by "behind-the-meter" photovoltaic  
11          installations?

12  A.    Absolutely. Yes.

13  Q.    Are you familiar with the CELT report on  
14          photovoltaic predictions?

15  A.    I've certainly seen them, yes.

16  Q.    And the trend over the last few years has  
17          been that those predictions are, even if you  
18          look out five years, are being regularly  
19          revised and trending upward, even for the  
20          same year significantly different.

21                 So do you think that there is the  
22                 potential for underestimating the effect of  
23                 distributed energy resources such as that,  
24                 that may be also underestimated in some of

1 the projections looking ahead in the energy  
2 markets?

3 MR. NEEDLEMAN: Objection. I  
4 think this is calling for new opinions.

5 CHAIRMAN HONIGBERG: Mr. Cote.

6 MR. COTE: Well, those  
7 projections were the subject of my previous  
8 questions to both Ms. Frayer and the Brattle  
9 Group in this forum, so I thought it was fair  
10 to raise the same question with this energy  
11 expert.

12 CHAIRMAN HONIGBERG: Mr.  
13 Needleman.

14 MR. NEEDLEMAN: My recollection  
15 is they were objected to at that time.

16 CHAIRMAN HONIGBERG: Yeah, I'm  
17 going to sustain the objection.

18 MR. COTE: Okay. Well, that's  
19 it for my questions.

20 CHAIRMAN HONIGBERG: Any other  
21 intervenor groups have questions for Mr.  
22 Fowler?

23 [No verbal response]

24 CHAIRMAN HONIGBERG: Seeing

1 none, Mr. Needleman.

2 CROSS-EXAMINATION

3 BY MR. NEEDLEMAN:

4 Q. Hello, Mr. Fowler. I'm Barry Needleman. I  
5 represent the Applicants in this matter. Let  
6 me just start quickly with the purpose of  
7 your testimony.

8 You describe your testimony by saying  
9 that you'll discuss several major issues  
10 relating to projected capacity savings  
11 described in the public testimony of Julia  
12 Frayer. And then you go on to say that, with  
13 respect to her work, you said that LEI's  
14 estimates of wholesale market benefits,  
15 particularly for capacity, were derived from  
16 flawed analysis and unrealistic assumptions,  
17 leading to a significant exaggeration of  
18 those benefits; is that right?

19 A. I don't have it in front of me, but that  
20 sounds right.

21 Q. I thought you had your testimony there.

22 A. Do you want me to turn to the page? I can  
23 verify that if you'd like. That sounds  
24 right.

1 Q. Okay. If at any point you want me to direct  
2 you to specific pages, I'm happy to do that.

3 A. That sounds right.

4 Q. Okay. And I want to get into some of the  
5 specific opinions you offer in connection  
6 with the purpose of your testimony. But  
7 before I do, you submitted your testimony on  
8 December 30th, 2016; is that right?

9 A. Okay. Yeah.

10 Q. And at the time you submitted your testimony,  
11 you weren't a party to the Confidentiality  
12 Agreements with the Applicants; correct?

13 A. Correct.

14 Q. And so at the time you wrote your testimony,  
15 you didn't have access to the redacted  
16 version of LEI's testimony and report;  
17 correct?

18 A. Correct.

19 Q. And after you filed your testimony, LEI  
20 updated its report in February of 2017 and  
21 then revised it again in March of 2017;  
22 right?

23 A. Yes.

24 Q. And then Ms. Frayer submitted supplemental



1 testimony in April of 2017 with her  
2 accompanying rebuttal report; is that right?

3 A. Correct.

4 Q. And you didn't file any supplemental  
5 testimony in this proceeding; correct?

6 A. I did not.

7 Q. So the testimony you have on record doesn't  
8 address any of those subsequent filings;  
9 correct?

10 A. The testimony I submitted back in December  
11 does not address things that happened after  
12 that. That's correct.

13 Q. And you didn't actually sign the  
14 Confidentiality Agreement with the Applicants  
15 until May 24th, 2017; is that right?

16 A. That sounds right.

17 Q. So the first time you would have had any  
18 access to any of the confidential information  
19 that LEI was relying on was in May, well  
20 after that deadline for supplemental  
21 testimony and all this work had been done; is  
22 that correct?

23 A. Okay. Yeah.

24 Q. Now, in your analysis, you lay out a variety

1 of concerns that you have, and I want to take  
2 these issue by issue.

3 So, on Page 10, Lines 1 through 4 of  
4 your testimony, you say that LEI should use  
5 the correct Forward Capacity Market design  
6 when making any capacity-related  
7 calculations. Do you remember saying that?

8 A. Yes.

9 Q. And this issue came up because ISO-New  
10 England changed the rules governing the  
11 Forward Capacity Market after LEI submitted  
12 its initial report; right?

13 A. I don't remember the timing of when they  
14 filed or not. But I'll take your word for  
15 that.

16 Q. And I think you and I, or maybe you and the  
17 Applicants discussed this at our technical  
18 session. Do you remember that?

19 A. Yes.

20 Q. And LEI updated the analysis that it did  
21 afterward to account for the correct market  
22 design; is that right?

23 A. Yes.

24 Q. So am I correct, then, that this first

1 criticism you have is no longer applicable  
2 here?

3 A. Yeah, I believe that's right.

4 Q. Okay. Your second issue is on Page 10, Lines  
5 4 and 5. You said, "LEI should have addressed  
6 how and why they believe that a capacity sale  
7 over NPT could pass ISO-New England's MOPR";  
8 correct?

9 A. Correct.

10 Q. And I think you're probably aware that this  
11 is something that's been discussed in great  
12 detail during this proceeding; right?

13 A. Indeed.

14 Q. And you're aware that LEI actually did a MOPR  
15 calculation in its April 17th supplement;  
16 correct?

17 A. Correct.

18 Q. And the number's confidential, but LEI did  
19 determine that the Project would clear the  
20 Forward Capacity Auction; right?

21 A. That's their conclusion.

22 Q. And with respect to your basic criticism that  
23 LEI didn't perform a MOPR analysis, that  
24 criticism has now been addressed as well;

1 correct?

2 A. They have performed one. Correct.

3 Q. And earlier on, I think when Mr. Anderson was  
4 questioning you, he mentioned a CASPR  
5 process. Do you recall that?

6 A. Yes.

7 Q. My understanding is that the CASPR process is  
8 only applicable in this case if Northern Pass  
9 wins the Mass. RFP and then doesn't clear the  
10 Forward Capacity Auction. Is that correct?

11 A. No, I don't think it's necessary to clear the  
12 Mass. RFP. I think that if they are  
13 denied -- if they do not pass the MOPR test,  
14 then, for whatever reason they want, they  
15 could potentially go in there. It doesn't  
16 need to be supported by the Mass. RFP. It  
17 could be supported by any other market  
18 revenue stream.

19 Q. Okay. But if they don't pass the MOPR test,  
20 then that's when CASPR would kick in; right?

21 A. Right. Yes.

22 Q. So if you do pass the MOPR test, CASPR is  
23 irrelevant; correct?

24 A. Correct.

1 Q. And are you aware that LEI testified that  
2 they believe that they will pass the MOPR  
3 test?

4 A. I believe that's what they said, yeah.

5 Q. In fact, Ms. Frayer said specifically that  
6 she was highly confident that it would. Did  
7 you see that?

8 A. Okay. I don't recall that, but I'll take  
9 your word for that.

10 Q. Were you also aware that Brattle said that  
11 under certain circumstances it would also  
12 pass the MOPR test?

13 A. No. I didn't read Brattle's testimony, so I  
14 don't know what Brattle said.

15 Q. Why didn't you read Brattle's testimony?

16 A. I wasn't directed by counsel to do that, my  
17 client.

18 Q. Don't you think in the course of the opinions  
19 you're offering here that it would be  
20 relevant to read that testimony as well?

21 MR. ANDERSON: Objection. I  
22 don't understand the relevancy of the Brattle  
23 testimony to Mr. Fowler and his testimony with  
24 respect to Ms. Frayer.

1                   CHAIRMAN HONIGBERG: I think the  
2                   question as phrased, though, he can answer. He  
3                   may consider it not to have been useful. But  
4                   the question is does he feel that it would be  
5                   useful or relevant to him. He can answer that.

6           A.    No, I didn't make that judgment. I do what  
7           my client asks me to do, and I wasn't asked  
8           to review that.

9           BY MR. NEEDLEMAN:

10          Q.    Were you aware while you were doing your work  
11               in this proceeding that Brattle had actually  
12               submitted testimony on multiple occasions and  
13               provided a variety of analyses?

14          A.    Yes.

15          Q.    Did you ever -- I assume as an expert doing  
16               work, or as a professional doing work, part  
17               of what you try to do is to gather all of the  
18               information around you that you think would  
19               be useful in forming your opinions.

20          A.    Typically I do that. But I am a consultant  
21               and I do what my client directs me to do.

22          Q.    So, having been aware of the fact that  
23               Brattle did this work, did it ever occur to  
24               you that maybe having access to this and

1 reviewing it would be useful here in forming  
2 your opinions?

3 A. It could have been. I really didn't  
4 contemplate that. I was trying to answer the  
5 questions that have been asked of me and  
6 provide the testimony that my counsel asked  
7 me to put together. So this is a pretty  
8 immense record, and, no, I have not had the  
9 chance to review Brattle's or others out  
10 there. It's overwhelming, and this is not my  
11 full-time job.

12 Q. Does it surprise you that under certain  
13 circumstances Brattle agreed that NPT would  
14 actually pass the MOPR analysis?

15 A. Would it surprise me to read that Brattle  
16 thinks NPT would pass the MOPR analysis?  
17 That does surprise me.

18 Q. With respect to CASPR, is it also correct  
19 that it plays no role if the Project doesn't  
20 win the Massachusetts RFP, but it gets  
21 constructed anyway and still clears the MOPR?

22 A. Rephrase the question for me again? I'm  
23 trying to see where you're trying --

24 Q. Yeah. Sorry. I should have done that a

1 little bit better.

2 There's been a lot of focus on the Mass.  
3 RFP. I want you to assume for a minute the  
4 Project doesn't win the Mass. RFP, but it  
5 still gets constructed.

6 A. Okay.

7 Q. You're aware that Mr. Quinlan testified that  
8 the Project was not dependent on the Mass.  
9 RFP? Did you see that testimony?

10 A. I don't recall that, but I'll trust you.

11 Q. Okay. So, assuming that it doesn't win the  
12 Mass. RFP, but the Project does get  
13 constructed, CASPR would still have no  
14 bearing on this if it cleared the Forward  
15 Capacity Auction; right?

16 A. Correct.

17 Q. Okay. Now, the third criticism you had in  
18 your testimony that I wanted to talk about  
19 was on Page 10, Lines 5 through 7. You said  
20 LEI should investigate the ability of  
21 capacity to pass ISO-New England's  
22 deliverability standard. Do you recall that?

23 A. Yes.

24 Q. And I think we talked about that a little bit



1 earlier.

2 Now, with respect to this issue, you  
3 didn't do any independent analysis to  
4 determine whether NPT would in fact have  
5 deliverability constraints; right?

6 A. I did not, other than what I referenced in my  
7 testimony and what I discussed earlier today.

8 Q. And in your testimony, what you referenced  
9 was the 2013 System Impact Study; is that  
10 right?

11 A. Correct.

12 Q. And were you aware of the fact that when you  
13 wrote your testimony, the 2016 System Impact  
14 Study was available?

15 A. I don't recall whether I -- where I was at  
16 that point. So, no, I don't recall whether I  
17 remembered that or not.

18 Q. Have you ever reviewed the 2016 System Impact  
19 Study --

20 A. I have.

21 Q. -- in light of the criticisms you have here?

22 A. Yes.

23 Q. Okay. And at the tech session, I think we  
24 talked about this a little bit. And I asked

1           you whether you were aware of the changes  
2           between the 2013 and the 2016 study.

3    A.    Hmm-hmm.

4    Q.    And do you recall whether you were or not?

5    A.    I was aware of that at the time.  I don't  
6           recall how I answered that.

7    Q.    So, one change was that the Project went from  
8           1200 to 1090 megawatts; right?

9    A.    Okay.

10   Q.    Another relevant change was a change in  
11          technology for the converter terminal;  
12          correct?

13   A.    Right.

14   Q.    And another relevant change is that there had  
15          been additional transmission infrastructure  
16          that had been approved and was going to be  
17          under construction, like Merrimack Valley,  
18          for example; correct?

19   A.    Okay.

20   Q.    So, earlier on when you were talking to Mr.  
21          Pappas, you said you didn't do any analysis  
22          and had no sense of what the cost might be in  
23          connection with this upgrade; correct?

24   A.    Correct.

1 Q. It's true, though, that ISO-New England is  
2 going to do this analysis, and they will  
3 identify any system upgrades that might be  
4 necessary to ensure deliverability; right?

5 A. If the Applicant applies to the Capacity  
6 Market, then that's part of that process.

7 Q. And are you aware of the fact that during the  
8 course of discovery, the Applicant provided  
9 confidential information to various parties  
10 about what the estimated cost of these  
11 upgrades were?

12 A. I'm not.

13 Q. So you never saw that information.

14 A. I did not.

15 Q. So, to the extent ISO-New England identifies  
16 any necessary upgrades, and HQ pays for those  
17 upgrades, there is no issue here; is that  
18 correct?

19 A. And these are deliverability upgrades you're  
20 talking about, not the System Impact Study  
21 upgrades.

22 Q. Correct.

23 A. And you have actually identified those?

24 Q. I'm asking you, based on the testimony you've

1 given here, whether in light of the  
2 information I just presented to you that's no  
3 longer an issue. And if you don't know, you  
4 can say that.

5 A. I'm just confused as to how what you're  
6 saying is really possible. To identify the  
7 final impacts, you have to go through the  
8 qualification process at ISO-New England.  
9 And ISO-New England does the study, and then  
10 that becomes part of that whole record. And  
11 my understanding is Northern Pass had not  
12 gone through that process in qualifying for  
13 the FCA. So are you saying that has been  
14 done then?

15 Q. What I'm asking you is, based on the  
16 criticisms that you lodged here, these issues  
17 will be addressed by ISO-New England; isn't  
18 that correct?

19 A. Ultimately they will be addressed by ISO-New  
20 England.

21 Q. On Page 10, Line 7 through 10, you raise a  
22 concern saying that LEI should have  
23 recognized the obligations and penalty risks  
24 of non-performance if awarded a CSO, a

1 capacity supply obligation; right?

2 A. Okay.

3 Q. And we talked about this a minute ago. Mr.  
4 Pappas asked you about it. And you described  
5 in your testimony what those penalties would  
6 be. I think you said in June of 2021 it  
7 would be \$3500 per megawatt hour; is that  
8 right?

9 A. Okay.

10 Q. And your position is, you said, quote,  
11 "Facing the extensive penalties of Pay For  
12 Performance, those who contract to bring  
13 energy from HQ into New England on NPT may  
14 not want to risk taking on a CSO when the  
15 supply of their energy is nearly 1,000 miles  
16 north of Boston"; right?

17 A. That's what I said, yeah.

18 Q. Now, you also said a moment ago that this is  
19 really an issue where someone has to look at  
20 their own risk profile and make a  
21 determination about essentially whether they  
22 want to tolerate that risk; right?

23 A. Correct.

24 Q. And do you know whether that internal risk

1 tolerance analysis has been done by the  
2 Project?

3 A. I do not know what they've done.

4 Q. So what's your specific criticism here? This  
5 isn't a criticism that in any way relates to  
6 their ability to qualify for capacity; right?  
7 It sounds like this is a criticism that  
8 you're saying with respect to the Project's  
9 own internal financial analysis.

10 A. No. My recollection of reviewing the  
11 original testimony was that it had been  
12 stated in there that the Project would be a  
13 price-taker into the Capacity Market. And if  
14 you're a price-taker, then that's assuming  
15 you're going to bid zero, which is  
16 inconsistent in my mind with the risk of  
17 penalty exposure. It's not going to be zero.  
18 It's some positive number. So that's what I  
19 was going to.

20 Q. So you noted two specific reliability events  
21 in your testimony where HQ curtailed supply  
22 into New England. And I think you were using  
23 those as evidence of potential penalty risk;  
24 right?

1 A. As an example.

2 Q. And you said that if one of these outages had  
3 occurred while HQ held the CSO, that the fine  
4 would have been \$15.75 million in penalties  
5 for such an event; right?

6 A. I think you're paraphrasing, but that sounds  
7 about right.

8 Q. I think I am. Right.

9 So in Brattle's rebuttal report on  
10 Page 35, they calculated that for Forward  
11 Capacity Auction No. 11, with the clearing  
12 price that they were using, HQ would make  
13 \$63.6 million for that 12-month-capacity  
14 commitment period. I assume you looked at  
15 that in supplemental testimony.

16 A. I did not. I haven't looked at Brattle's  
17 testimony.

18 Q. No, no. That's LEI.

19 A. Oh, I'm sorry. I thought you said Brattle.  
20 So say that again. You said they were --

21 Q. LEI calculated that for Forward Capacity  
22 Auction No. 11, using their clearing price  
23 that they had in their calculation for 1,000  
24 megawatts CSO, HQ, in that period, would have

1           made \$63.6 million for the 12-month capacity  
2           period. Did you --

3   A.   Sixty-three million from what?

4   Q.   Actually, you know what?

5                           MR. NEEDLEMAN: Dawn, let's put  
6           it up.

7   BY MR. NEEDLEMAN:

8   Q.   I don't want to -- I'm being unfairly  
9           confusing to you.

10   A.   Thank you.

11   Q.   It's Applicant's 102, Page 35. The paragraph  
12           begins, "More importantly..." Take a moment  
13           to read that, Mr. Fowler, just the first  
14           couple sentences.

15                           (Witness reviews document.)

16   Q.   Let me know when you're set.

17   A.   Okay.

18   Q.   So, assuming that the calculation is correct  
19           here that LEI did, the revenue that an entity  
20           would get for this capacity supply obligation  
21           is essentially certain once awarded; right?

22   A.   Subject to the penalties, yeah.

23   Q.   Right. Put the penalties aside for a moment.  
24           This revenue stream is certain if it's



1 awarded; right?

2 A. Correct.

3 Q. And if we take the penalties that you used in  
4 your example of \$15.75 million, those  
5 penalties -- any penalties are uncertain;  
6 correct?

7 A. Yup.

8 Q. So you have a certain revenue stream and you  
9 have uncertain penalties; correct?

10 A. Okay.

11 Q. So, based on the analysis that LEI did here,  
12 don't you agree that it makes economic sense  
13 for an entity to take on \$63 million in  
14 certain revenues in relation to the risk of  
15 maybe incurring something like \$15 million of  
16 possible penalties?

17 A. If that was the only cost you had on that  
18 side, yes. But that's not the only cost you  
19 have with taking on a CSO. There's a whole  
20 long and longer list of obligations you have  
21 if you have a CSO that you are taking on in  
22 exchange for that \$63 million. And those  
23 have a lot of value as well. So I guess I  
24 would agree with that.

1 Q. Well, except you didn't talk about that in  
2 this aspect of your testimony. You talked  
3 about the non-performance risk.

4 A. Okay.

5 Q. And that's what I'm focusing on, what you  
6 talked about, the non-performance risk;  
7 correct?

8 A. I was talking about the non-performance risk.

9 Q. And in fact, it's also true that if HQ --  
10 that HQ could actually receive additional  
11 revenue for supplying power during shortage  
12 events; right?

13 A. It could, yeah.

14 Q. So that could actually enhance this revenue  
15 stream; correct?

16 A. It could.

17 Q. The next criticism you had was on Page 10,  
18 Lines 12 through 13. You said that LEI  
19 should have recognized that any material  
20 capacity sales by NPT will have significant  
21 impact on revenues and ultimate viability of  
22 other generators. Do you recall saying that?

23 A. Yeah.

24 Q. And in LEI's original and updated analysis,

1 do you recall that LEI modeled that no  
2 generators would retire in response to  
3 Northern Pass?

4 A. I remember them saying that, yeah.

5 Q. And you didn't do any analysis or modeling  
6 with respect to the market response to  
7 Northern Pass, did you?

8 A. I did not.

9 Q. So, outside of your own judgments that you're  
10 offering here on how the market might  
11 respond, you don't have any quantitative  
12 analysis to support your conclusion that it  
13 would be unrealistic to assume that  
14 generators won't retire in response to  
15 Northern Pass; is that correct?

16 A. That's correct.

17 Q. And again I'm going to ask you something  
18 about the Brattle testimony. You tell me  
19 whether this sounds familiar to you or not  
20 since you didn't see it.

21 But in their supplemental testimony,  
22 Brattle said, quote, "We incorporate several  
23 updates to our prior analysis, but two are  
24 most significant. First, we use information

1 from the recently concluded FCA 11 to update  
2 our capacity market supply curve. FCA 11  
3 awarded new resources and demonstrated the  
4 willingness of existing resources to stay in  
5 the market at low prices." Do you remember  
6 Brattle saying that?

7 A. No, but I'll trust you. I didn't read that.

8 Q. Do you agree with that statement?

9 A. Yeah. Yeah, that makes sense.

10 Q. So the actual practical experience we had  
11 from that Forward Capacity Auction is that  
12 these resources have appreciable resiliency  
13 and are willing to stay in even at lower  
14 prices, according to Brattle; isn't that  
15 right?

16 A. I can't comment on what Brattle is thinking.  
17 But I think that, you know, my assessment of  
18 that would be that at a one-year look of  
19 \$5.30 that were cleared at, that, yeah, the  
20 bulk of the resources can sustain that. I  
21 don't think you can conclude from that what  
22 would happen at lower prices, or certainly if  
23 that same level of price was sustained for a  
24 long period of time. I don't think you can

1 draw that conclusion from that.

2 Q. Earlier today during your direct testimony,  
3 Mr. Anderson showed you Figure 3 from Ms.  
4 Frayer's supplemental testimony, which were  
5 those CSO curves. Do you remember that?

6 A. These are the pie chart with the pricing?  
7 Are we talking about the MRI curve? Which  
8 curves --

9 Q. No, the CSO curves.

10 MR. NEEDLEMAN: I think maybe we  
11 need to call that up, Dawn. Do we know where  
12 that is? Give us one second. It's Julia  
13 Frayer's supplemental report and we just need  
14 the page. Right, supplemental rebuttal.  
15 Sounds like it might be Page 18, Figure 3.

16 (Pause)

17 BY MR. NEEDLEMAN:

18 Q. So this is what I was talking about. Do you  
19 recall that discussion you had this morning?

20 A. Yes.

21 Q. And I think you suggested that a change in  
22 these curves would increase the chances of  
23 retirements; is that right?

24 A. If the curves are moved to the left, that

1           could increase the chance of retirement, yes.

2    Q.    And do you understand that in its Base Case  
3           analysis, LEI actually modeled retirements?

4    A.    I am.

5    Q.    And the amount of the retirements they  
6           modeled are confidential.  But you didn't do  
7           any analysis to quantify the supposed  
8           increase in the risk of retirements; right?

9    A.    I did not.

10   Q.    So the only thing that we have with respect  
11          to your view on this is the unsupported  
12          estimate that you offered to Mr. Pappas a  
13          short time ago.

14   A.    That's my judgment.

15   Q.    And there's no way to correlate that  
16          increased risk in retirement with what LEI  
17          modeled in its Base Case; isn't that correct?

18   A.    I would not say there's no way to do that  
19          assessment.  I'd have to think about that.  
20          There could be an analysis that could be done  
21          to look at that.

22   Q.    There could be.  But you haven't done it;  
23          right?

24   A.    I have not done it.

1 Q. And so as you sit here today, you and LEI  
2 could actually be talking about exactly the  
3 same thing with respect to these retirements;  
4 isn't that correct?

5 A. You think that I could be coming up with the  
6 same conclusions as them? That just seems  
7 very unlikely to me. No, I don't believe  
8 that.

9 Q. No. When you say there's an increased risk  
10 of retirements, and we know LEI modeled  
11 retirements in its Base Case, you could  
12 actually both be talking about the same  
13 retirements, and we just don't know because  
14 you haven't done that analysis; correct?

15 A. I have not done the analysis. But LEI's  
16 assessment they did had prices and a look  
17 forward that were substantially more  
18 attractive higher prices than what I think is  
19 appropriate in light of what's changed here.  
20 So I would think that their assessment is not  
21 looking at the correct prices. So I don't  
22 get to that same conclusion as them.

23 Q. I'm not talking about the path to the  
24 conclusion. I'm talking about the endpoint.

1           And what I mean by that is that LEI didn't  
2           tie the assumption of retirements in its Base  
3           Case to particular events. They simply  
4           assumed the retirements. And you are  
5           assuming retirements based on this event.  
6           And what I'm saying is you have no  
7           information to make a determination about the  
8           retirements they assume correlating to these  
9           retirements. They could be the same thing  
10          and you just don't know, do you?

11        A.    I don't know what they were doing.

12        Q.    Okay. And just one other question on that  
13              topic. In terms of the effect of these  
14              curves moving here, the only way to actually  
15              know the effect on LEI's conclusions would be  
16              for them to rerun their model again; isn't  
17              that right?

18        A.    Potentially. That's what I would do if I was  
19              them is rerun their model with the updated  
20              numbers.

21        Q.    Because otherwise you're just speculating  
22              about what the impacts might be; right?

23        A.    Hmm-hmm.

24        Q.    Okay. And then just one last set of



1           questions. I want to assume for a moment  
2           that you're correct and that generators would  
3           actually retire in response to NPT being  
4           built. If that was the case, it would be  
5           because NPT was introducing a more  
6           competitive product into the marketplace,  
7           whether it's lower-priced power or something  
8           like that. That would be the reason; right?

9    A.    I would not say that's more competitive.  
10        That would be a judgment based on the  
11        subsidiaries that are associated with it. If  
12        it is offering at a lower price, then that  
13        could, for whatever reason -- then, yeah,  
14        that could drive them out.

15   Q.    But the subsidies really -- another way to  
16        frame the word "subsidies" here would be  
17        "state policy"; right?

18   A.    Yeah.

19   Q.    Okay. So it's as a consequence of state  
20        policy that, if Northern Pass were  
21        introduced, lower prices would displace these  
22        generators; correct?

23   A.    Okay.

24   Q.    And so in that circumstance -- well, you're

1 here on behalf of NEPGA. And NEPGA is made  
2 up in large part of incumbent generators;  
3 correct?

4 A. Correct.

5 Q. And so those incumbent generators actually,  
6 in this context, would be competitors of  
7 Northern Pass; is that correct?

8 A. Potentially, yeah.

9 Q. And so, to the extent that Northern Pass --  
10 to the extent you are right and Northern Pass  
11 would displace those generators, your clients  
12 actually have something to lose in the  
13 marketplace based on that analysis; correct?

14 A. Okay.

15 Q. Do you agree with that?

16 A. Yeah.

17 Q. Okay. And so, in turn, your clients actually  
18 have an economic incentive to see NPT be  
19 unsuccessful; correct?

20 MR. ANDERSON: Objection.

21 CHAIRMAN HONIGBERG: Grounds.

22 MR. ANDERSON: I don't

23 understand what that has to do with Mr.

24 Fowler's testimony, Ms. Frayer's testimony or

1 anything in the scope of this proceeding.

2 CHAIRMAN HONIGBERG: I think Mr.  
3 Needleman can give us a few reasons.

4 MR. NEEDLEMAN: Goes to  
5 credibility and bias. If his clients stand to  
6 directly fail as a consequence of Northern Pass  
7 prevailing, then I would say that that's  
8 something the Committee should know about.

9 MR. ANDERSON: I don't think Mr.  
10 Fowler or anybody else can say that NEPGA  
11 members will fail. I don't know what Mr.  
12 Needleman means by "fail." But certainly it  
13 hasn't been established. There's no record of  
14 evidence that establishes that. So I don't  
15 understand the rationale for that question.

16 MR. NEEDLEMAN: I actually  
17 disagree. I think we just got three quarters  
18 of what we need here, which is Mr. Fowler  
19 admitting that they're competitors in the  
20 marketplace and that in this context, by being  
21 competitors in the marketplace, Northern Pass  
22 is a potential threat to that. So, really, the  
23 ultimate question is: If that's the case,  
24 don't they stand to lose something if NPT

1 succeeds? And I think --

2 CHAIRMAN HONIGBERG: The  
3 objection's overruled. You can continue.

4 BY MR. NEEDLEMAN:

5 Q. So I'll ask the question again just so the  
6 record's clear, Mr. Fowler.

7 So the NEPGA members in this context  
8 have -- if NPT is successful, then they  
9 potentially face some sort of economic harm;  
10 correct?

11 A. Again, that depends on how NPT would offer  
12 into the markets. And I can't -- if NPT  
13 offered at very low prices, then that would  
14 push market prices down. If they offered at  
15 high prices, it would push them up. And I  
16 don't know how they're going to offer.

17 MR. NEEDLEMAN: Okay. I'm all  
18 set. Thank you.

19 CHAIRMAN HONIGBERG: Questions  
20 from the Committee. Commissioner Bailey, why  
21 don't you go first.

22 QUESTIONS BY SUBCOMMITTEE MEMBERS AND SEC COUNSEL:

23 BY COMMISSIONER BAILEY:

24 Q. Good afternoon.

1 A. Good afternoon.

2 Q. I have a couple of follow-ups to what you did  
3 with your own attorney, okay.

4 So, remember the discussion that you had  
5 that showed the table with the net Installed  
6 Capacity Requirement decreasing?

7 A. Correct.

8 Q. And there was one area that showed it was  
9 even lower than what was on the table.

10 A. Right.

11 Q. And what I understood that to mean is that if  
12 the Net ICR goes down, then the price of  
13 capacity would go down.

14 A. Right.

15 Q. Right? And wouldn't the price of capacity go  
16 down in both the Base Case and the Project  
17 case?

18 A. Yes.

19 Q. So what's the point that you were trying to  
20 make?

21 A. Is the model functioning properly if they're  
22 starting out with the right or wrong prices.  
23 So my understanding of how their model works  
24 is they look forward, and then there's entry

1 and exit based on what happens out in the  
2 market as the prices get to some certain  
3 level --

4 Q. Slow down. I can't keep up with you.

5 A. My apologies. As the market -- the market  
6 will respond to prices. And what you would  
7 expect as -- sorry, I lost my train of  
8 thought.

9 Q. I'm sorry. We were talking about if both the  
10 Base Case and the Project case prices are  
11 reduced, then the savings is the same.

12 A. Right. So that would assume -- I believe  
13 that would be correct in some ways, in the  
14 first year of the savings would change  
15 because now you're going to shift those whole  
16 curves over if the starting point is  
17 different. So in other words, they may show  
18 a savings of \$10 in Year 10, but really that  
19 savings now may be in Year 11 or 12 because  
20 the differences moved out based on how the  
21 ICR has changed.

22 And the other piece is the internal  
23 functioning of the computer model that they  
24 have, in that that model takes loads, prices,

1 generation, and then it adds generation as  
2 prices go up and it retires generation as  
3 prices go down. And if the original prices  
4 are incorrect or shifted, then that behavior  
5 changes. So the underlying function of  
6 what's happening inside that model should  
7 change as the prices are different. And as  
8 the behavior of the market changes, then I  
9 don't know what that does to the price  
10 difference post-project and pre-project. We  
11 just have to rerun the model to see what that  
12 really does. So I can't say that that  
13 difference stays the same. I think the  
14 difference would move in years. And it would  
15 be different because the market behaves as  
16 you have new entry and exit based on what  
17 those prices are. Does that make sense? I  
18 don't know if I answered the question well.

19 Q. I think you answered my question. Thank you.  
20 My next question may take a second.

21 (Pause)

22 Q. How do you know that the capacity savings  
23 would be non-existent in the zonal price  
24 separation argument that you were making?

1 A. I need more context for that.

2 Q. Okay. I can't get there. Sorry.

3 CHAIRMAN HONIGBERG: We're going  
4 to take a five-minute break.

5 CMSR. BAILEY: Thank you.

6 (Recess was taken at 3:52 p.m.

7 and the hearing resumed at 4:03 p.m.)

8 CHAIRMAN HONIGBERG:

9 Commissioner Bailey.

10 CMSR. BAILEY: Thanks.

11 BY COMMISSIONER BAILEY:

12 Q. Okay. So, if Northern Pass gets a CSO  
13 through CASPR, you've said that there will be  
14 no capacity savings in the first year --

15 A. Correct.

16 Q. -- and that there will be price suppression  
17 in the years going forward.

18 A. In the long run there could be. Depends on  
19 how they offer. But yeah, there could be.

20 Q. Well, you said because more expensive  
21 generators, older generators will have  
22 retired.

23 A. Correct.

24 Q. So that we should see savings then going



1 forward, even from CASPR -- is that right --  
2 even if they get the capacity supply  
3 obligation from CASPR?

4 A. There would be potentially lower prices in  
5 the capacity market in the long -- over the  
6 longer term after that first year. Yeah, you  
7 could see that.

8 Q. Do you have any idea of the magnitude of  
9 those savings or, you know, the lower prices?

10 A. No. My belief is that they would be pretty  
11 minor. That's kind of a fundamental piece of  
12 the whole CASPR idea is, you know, do we want  
13 to -- how can we construct this mechanism  
14 that generally does not adversely affect  
15 price formation, economic efficiency in the  
16 markets. And to do that, there should be no  
17 price formation. The market price should  
18 always determine things. CASPR is imperfect,  
19 so we can't make that happen perfectly  
20 because of that, and that's kind of this  
21 issue I've said in the long run. I believe  
22 that the general thought is that that change  
23 in the long run will be relatively minor. If  
24 people thought that was going to be a very

1 major change in the long-run prices, then  
2 that really wouldn't have the kind of broad  
3 support that CASPR seems to be gaining right  
4 now.

5 Q. Okay.

6 A. So I'd say minor.

7 Q. So, minor. Okay. So then there really  
8 wouldn't be very much price suppression from  
9 that either; right?

10 A. Correct.

11 Q. Okay. Thank you.

12 CHAIRMAN HONIGBERG: Other  
13 members of the Committee? Mr. Iacopino.

14 QUESTIONS BY MR. IACOPINO:

15 MR. IACOPINO: My first question  
16 is about CASPR. What's the status of that  
17 right now?

18 A. That is working its way through the  
19 stakeholder process at NEPOOL. So we've had  
20 an initial set of voting at the Markets  
21 Committee last week, and that will then  
22 proceed through another vote at the  
23 Participants Committee, which is the main  
24 governing body of NEPOOL, on December 8th.

1           And then following that, then we should have  
2           an idea of where that's going.

3    Q.     So is that a final up or down vote on  
4           December 8th?

5    A.     That will be, yeah, an up or down vote.  If  
6           NEPOOL -- there may be more than one  
7           alternative and options considered at that  
8           vote.  But, yeah, hopefully that is a --  
9           we're going to be done with CASPR --

10   Q.     On December 9th we'll know what it looks  
11           like.

12   A.     We'll know what the filing looks like.  There  
13           is a possibility that there actually may be  
14           more than one filing that goes in.  We have  
15           some mechanism where that can happen.  And  
16           depending on whether ISO is kind of in  
17           agreement with where all the stakeholders  
18           are, if ISO is in agreement, then it's one  
19           filing.  If ISO thinks, you know, no,  
20           actually that's kind of crazy, I want to  
21           stick with this more pure idea, then there  
22           could be two filings that can go in to FERC,  
23           and then FERC has to decide which one they  
24           like.

1 Q. So the filings go in to FERC.

2 A. Right.

3 Q. And then how long before you get a FERC  
4 approval or non-approval, if you know?

5 A. Yeah, I think in this case there's a great  
6 desire to have an answer to this by  
7 mid-March. As we go into FCA 13, the auction  
8 in February of 2019, that's kind of the one  
9 that the general perception is we might start  
10 to see a lot of these out-of-market contracts  
11 coming in, particularly from the Mass. RFP.  
12 So, in March of '19, we have, you know, the  
13 qualification process for FCA 13 is going on.  
14 And in late March we have a deadline where,  
15 if you want to retire, you have to start  
16 providing ISO notification of that and cost  
17 structures and other things to the IMM.

18 So the idea is if we don't know by  
19 mid-March what is happening with CASPR, then  
20 it's very difficult for people to construct  
21 their retirement bids and how they might want  
22 to trade out in CASPR. So the thought is if  
23 we don't hear by mid-March, then we may miss  
24 FCA 13 altogether. So FERC is aware of that.

1 I think, you know, there's going to be a  
2 great drive to try to get an order out by,  
3 you know, mid-March.

4 Q. When you say there's going to be a "great  
5 drive," you mean by the folks at FERC? I  
6 don't practice in front of them, so I'm just  
7 trying to get an idea. Are they sort of  
8 participant-friendly like that, or could you  
9 be waiting another year?

10 A. We certainly could wait, you know, a long  
11 time. You know, they can take their time,  
12 however they want. But, you know, we have  
13 had a lot of interaction with FERC in this  
14 process, too. And my sense is that FERC  
15 really wants to get something done here. So  
16 the answer could be, yes, they could wait a  
17 long time, but my expectation is there's a  
18 great desire to get something done by then as  
19 well.

20 Q. I have one other question and it goes back to  
21 the discussion regarding the cost on the  
22 Canadian side and the Independent Market  
23 Monitor and what he or she will include.

24 Is there any type of commercial

1 arrangements that would prohibit the  
2 Independent Market Monitor from including  
3 costs incurred on the Canadian side of the  
4 Project? In other words, could there be a  
5 corporate structure or a contract design that  
6 takes that out of consideration for the  
7 Independent Market Monitor?

8 A. I don't want to rule that out and say that's  
9 impossible because I guess we'd have to see  
10 what that was and what the IMM said. I will  
11 say, you know, my experience with the Market  
12 Monitor in the past has been that he tries to  
13 push through that. I think, you know, this  
14 is a -- the IMM is a very thorough watchdog  
15 of how our markets work. And, you know,  
16 there are lots of occasions where people  
17 could try to use a corporate structure, not  
18 necessarily for this, but really for lots of  
19 different purposes in, you know, the whole  
20 operation of our markets. And the IMM has  
21 been really very consistent and thorough in  
22 trying to push through those structures to  
23 make sure they get to what the real costs  
24 are. So I'd expect them to at least try to

1 do that if we were in that situation.

2 MR. IACOPINO: Thank you. I  
3 have no further questions.

4 CHAIRMAN HONIGBERG: Anything  
5 else from the Committee?

6 [No verbal response]

7 CHAIRMAN HONIGBERG: Mr.  
8 Anderson, do you have any redirect for the  
9 witness?

10 MR. ANDERSON: I do, just  
11 briefly, thanks.

12 REDIRECT EXAMINATION

13 BY MR. ANDERSON:

14 Q. Mr. Fowler, Mr. Needleman asked you some  
15 questions about passing the MOPR test, and in  
16 particular referred to testimony from  
17 Brattle, as well as from Ms. Frayer, with  
18 respect to passing the MOPR test. What did  
19 you understand that to mean, "passing the  
20 MOPR test"?

21 A. So that would mean that you go through the  
22 process with the IMM. The IMM will look at  
23 what you -- the numbers you provide, and he  
24 will, you know, either approve your numbers

1 or say, no, that number is incorrect; I think  
2 the competitive number is Y. And passing  
3 MOPR, in my mind, would be he either approves  
4 the original number you came up with or he  
5 comes up with this known number. And that's,  
6 you know, typically a reduction -- or I'm  
7 sorry -- an increase to the number that the  
8 Applicant might have. And it may be that the  
9 Applicant is willing to accept that higher  
10 number, even though that's above what their  
11 first offer was. So I would interpret  
12 "passing" to be either one of those so that  
13 you end up with the Applicant is happy with  
14 the number that the IMM approves.

15 Q. Okay. But "passing the MOPR test" in no  
16 sense means any kind of guaranty of clearing  
17 the market. It just simply means that you  
18 have established an offer price different, or  
19 maybe it's not different from what the IMM  
20 came up with; is that right?

21 A. Yeah, that's right. You still need to pass  
22 the capacity deliverability test that I  
23 discussed this morning. And the other  
24 aspect, of course, is you ultimately have to



1 clear. So that means your price has to be,  
2 you know, in that range that it clears.

3 Q. Okay. Also some questions Mr. Needleman  
4 asked -- or a question Mr. Needleman asked  
5 about the System Impact Studies. Do you  
6 recall answering that you were aware that  
7 between the time of the 2013 and the 2016  
8 System Impact Studies that Northern Pass had  
9 made some changes to the Project design,  
10 including reducing capacity from 1200 to  
11 1090 megawatts, as well as adding some  
12 transmission? Do you recall that?

13 A. Correct. Yes.

14 Q. And do those changes in the capacity on the  
15 line or the added transmission, does that  
16 change in any way your conclusions with  
17 respect to this System Impact Study between  
18 2013 and 2016?

19 A. No, they didn't. And I think they actually  
20 exacerbated my concern because of the  
21 dispatch discussion that I had this morning.  
22 The 2016 study actually was even more  
23 restricted, as far as looking at dispatching  
24 plants outside of New Hampshire.

1 Q. Okay. Thank you.

2 With respect to the -- there's been some  
3 discussion of the penalties that are assessed  
4 for failure to deliver energy in reserves  
5 during system constraints and reserve  
6 deficits. It's known as the "Paper  
7 Performance Construct." And some questions  
8 from Mr. Needleman on that included  
9 establishing that \$63.6 million was, in his  
10 words, "certain." Do you recall that  
11 discussion you just had with him?

12 A. Yes.

13 Q. Under the Paper Performance design, is there  
14 a "stop-loss mechanism"?

15 A. There is.

16 Q. And if you could, could you describe what  
17 that is, that stop-loss mechanism?

18 A. Right. So you have your Base Capacity  
19 payment, which would just be whatever the  
20 clearing price is times the megawatts you  
21 cleared, and then you have the penalty  
22 exposure that goes with it. These are the  
23 reserve shortages that we've been discussing,  
24 the \$3500 in there. And there's a mechanism

1 in there that ISO put to try to insure that  
2 the penalties don't become overwhelming, in  
3 that the capacity -- ISO's original design  
4 just had an unlimited amount of penalties.  
5 For example, you could have \$60 million of  
6 revenue, but \$250 million of penalties in one  
7 year. And the thought was that that just  
8 introduced too much risk to the market. So  
9 we put what's called a "stop-loss mechanism"  
10 in there that basically says you can only  
11 lose so much, and that stop loss is still  
12 greater than your total revenue. Again, it's  
13 a complicated formula. But you could earn  
14 \$65 million in the market as your Base  
15 payment, and your penalties could still be  
16 \$70- or \$80 million; you could still be net  
17 negative in that whole market. But the  
18 stop-loss market prevents it from going out  
19 to infinity.

20 Q. So you would agree, then, that ISO-New  
21 England, in developing this Paper Performance  
22 design, contemplated and recognized that  
23 losses due to penalties could actually exceed  
24 what were termed as "certain revenues" in the

1 Capacity Auction?

2 A. Correct.

3 Q. Okay. So in that sense, would you agree,  
4 then, that the -- actually, strike that.

5 So this Paper Performance design is also  
6 thought of as a "two-settlement design."

7 Would you agree?

8 A. Yes.

9 Q. And the first settlement is considered the  
10 auction clear; correct? And the second  
11 settlement is the settlement of payments, or  
12 performance payments, as the case may be; is  
13 that right?

14 A. Correct.

15 Q. So would it be fair to say that the first  
16 settlement, those revenues are certainly not  
17 certain until you've accomplished the second  
18 settlement, particularly considering the  
19 stop-loss provision in --

20 A. Oh, absolutely, yeah.

21 Q. Okay. Just one more question. I believe  
22 earlier Commissioner Bailey asked you a  
23 question about how do we get to the point  
24 when there's no net benefit from Northern

1 Pass entry into northern New England. Do you  
2 recall a question kind of along those lines?

3 A. Right.

4 Q. And do you have an answer for that?

5 A. Yeah. And I'm not sure if I fully got it  
6 when we came back. But, you know, I thought  
7 a little bit about that still over a break as  
8 well, and it may have been related to the  
9 idea that -- and I put this in my original  
10 testimony -- to the extent Northern Pass  
11 comes in and suppresses price in a northern  
12 New England zone that is now heavily  
13 constrained, and then you do have retirements  
14 that are of that same order of magnitude,  
15 then there would be no net change to the  
16 capacity price. There would be no benefit to  
17 the capacity market. So that would happen if  
18 they came through CASPR in the way we  
19 discussed. It would also happen if they came  
20 through and passed the MOPR and didn't go  
21 through CASPR, but were offset by retirements  
22 of that same order of magnitude.

23 Q. Okay. Thank you, Mr. Fowler.

24 MR. ANDERSON: No further

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

questions.

CHAIRMAN HONIGBERG: Thank you, Mr. Fowler. I think we're done with you.

Nothing else we are doing this afternoon; correct? Then we will adjourn for the day and see everyone on Monday.

(Whereupon the Day 61 Afternoon Session was adjourned at 4:18 p.m. p.m., with the Day 62 hearing to resume on November 20, 2017, commencing at 9:00 a.m.)

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

C E R T I F I C A T E

I, Susan J. Robidas, a Licensed  
Shorthand Court Reporter and Notary Public  
of the State of New Hampshire, do hereby  
certify that the foregoing is a true and  
accurate transcript of my stenographic  
notes of these proceedings taken at the  
place and on the date hereinbefore set  
forth, to the best of my skill and ability  
under the conditions present at the time.

I further certify that I am neither  
attorney or counsel for, nor related to or  
employed by any of the parties to the  
action; and further, that I am not a  
relative or employee of any attorney or  
counsel employed in this case, nor am I  
financially interested in this action.

---

Susan J. Robidas, LCR/RPR  
Licensed Shorthand Court Reporter  
Registered Professional Reporter  
N.H. LCR No. 44 (RSA 310-A:173)

	<b>93:20</b>	<b>69:8;75:15;92:20;</b>	<b>approve (1)</b>	<b>59:1,5;60:7;85:24;</b>
<b>\$</b>	<b>accept (1)</b>	<b>93:3,7</b>	88:24	<b>90:6</b>
	89:9	<b>agreed (1)</b>	<b>approved (1)</b>	
<b>\$1 (2)</b>	<b>access (3)</b>	56:13	59:16	<b>B</b>
45:18,24	49:15;50:18;55:24	<b>Agreement (3)</b>	<b>approves (2)</b>	<b>back (4)</b>
<b>\$10 (1)</b>	<b>accompanying (1)</b>	50:14;84:17,18	89:3,14	44:4;50:10;86:20;
79:18	50:2	<b>Agreements (1)</b>	<b>approximately (2)</b>	94:6
<b>\$15 (1)</b>	<b>accomplished (1)</b>	49:12	43:22;44:6	<b>Bailey (7)</b>
66:15	93:17	<b>ahead (2)</b>	<b>April (2)</b>	77:20,23;81:5,9,10,
<b>\$15.75 (2)</b>	<b>according (1)</b>	44:9;47:1	50:1;52:15	11;93:22
64:4;66:4	69:14	<b>allow (3)</b>	<b>area (1)</b>	<b>Barry (1)</b>
<b>\$250 (1)</b>	<b>account (1)</b>	30:22;31:5;32:2	78:8	48:4
92:6	51:21	<b>along (1)</b>	<b>argument (1)</b>	<b>Base (8)</b>
<b>\$3,500 (1)</b>	<b>accurately (1)</b>	94:2	80:24	71:2,17;72:11;
35:10	44:14	<b>alternative (1)</b>	<b>around (4)</b>	73:2;78:16;79:10;
<b>\$3.5 (1)</b>	<b>across (1)</b>	84:7	37:7;45:1,7;55:18	91:18;92:14
35:14	45:21	<b>altogether (1)</b>	<b>arrangements (1)</b>	<b>based (9)</b>
<b>\$34 (1)</b>	<b>actual (3)</b>	85:24	87:1	60:24;61:15;66:11;
46:2	42:19;43:22;69:10	<b>always (1)</b>	<b>aside (1)</b>	73:5;74:10;75:13;
<b>\$3500 (3)</b>	<b>actually (25)</b>	82:18	65:23	79:1,20;80:16
36:3;62:7;91:24	44:8;45:11;50:13;	<b>amount (5)</b>	<b>aspect (2)</b>	<b>basic (1)</b>
<b>\$370 (1)</b>	52:14;55:11;56:14;	29:19;31:4,4;71:5;	67:2;89:24	52:22
46:3	60:23;65:4;67:10,14;	92:4	<b>assessed (2)</b>	<b>basically (1)</b>
<b>\$4 (1)</b>	71:3;72:2,12;73:14;	<b>analyses (1)</b>	34:22;91:3	92:10
38:6	74:3;75:5,12,17;	55:13	<b>assessment (6)</b>	<b>bearing (1)</b>
<b>\$5 (1)</b>	76:16;84:13,20;	<b>analysis (30)</b>	34:16;37:7;69:17;	57:14
38:6	90:19,22;92:23;93:4	31:24;32:5;33:23;	71:19;72:16,20	<b>become (1)</b>
<b>\$5.20-something (1)</b>	<b>added (1)</b>	34:7,12,14;39:8,13;	<b>associated (2)</b>	92:2
44:6	90:15	48:16;50:24;51:20;	37:6;74:11	<b>becomes (1)</b>
<b>\$5.30 (1)</b>	<b>adding (1)</b>	52:23;56:14,16;58:3;	<b>assume (9)</b>	61:10
69:19	90:11	59:21;60:2;63:1,9;	41:14,18;55:15;	<b>becoming (1)</b>
<b>\$6.23 (1)</b>	<b>additional (3)</b>	66:11;67:24;68:5,12,	57:3;64:14;68:13;	42:3
44:5	33:7;59:15;67:10	23;71:3,7,20;72:14,	73:8;74:1;79:12	<b>begin (1)</b>
<b>\$60 (1)</b>	<b>address (2)</b>	15;75:13	<b>assumed (2)</b>	40:2
92:5	50:8,11	<b>Anderson (11)</b>	34:7;73:4	<b>begins (1)</b>
<b>\$63 (2)</b>	<b>addressed (4)</b>	29:22;53:3;54:21;	<b>assuming (5)</b>	65:12
66:13,22	52:5,24;61:17,19	70:3;75:20,22;76:9;	41:20;57:11;63:14;	<b>behalf (1)</b>
<b>\$63.6 (3)</b>	<b>adds (1)</b>	88:8,10,13;94:24	65:18;73:5	75:1
64:13;65:1;91:9	80:1	<b>answered (3)</b>	<b>assumption (2)</b>	<b>behaves (1)</b>
<b>\$65 (1)</b>	<b>adjourn (1)</b>	59:6;80:18,19	36:13;73:2	80:15
92:14	95:5	<b>apologies (1)</b>	<b>assumptions (1)</b>	<b>behavior (2)</b>
<b>\$70- (1)</b>	<b>adjourned (1)</b>	79:5	48:16	80:4,8
92:16	95:8	<b>Apple (1)</b>	<b>attorney (1)</b>	<b>behind-the-meter (1)</b>
<b>\$8 (1)</b>	<b>admitting (1)</b>	41:1	78:3	46:10
45:2	76:19	<b>applicable (2)</b>	<b>attractive (1)</b>	<b>belief (1)</b>
<b>\$80 (1)</b>	<b>adversely (1)</b>	52:1;53:8	72:18	82:10
92:16	82:14	<b>Applicant (5)</b>	<b>Auction (16)</b>	<b>benefit (3)</b>
	<b>affect (2)</b>	60:5,8;89:8,9,13	29:7,8,10,12,17;	43:7;93:24;94:16
<b>[</b>	41:19;82:14	<b>Applicants (4)</b>	34:8;35:1;52:20;	<b>benefits (5)</b>
	<b>afternoon (4)</b>	48:5;49:12;50:14;	53:10;57:15;64:11,	29:15,21;30:9;
<b>[No (2)</b>	77:24;78:1;95:5,7	51:17	22;69:11;85:7;93:1,	48:14,18
47:23;88:6	<b>afterward (1)</b>	<b>Applicant's (3)</b>	10	<b>better (1)</b>
	51:21	33:22;34:6;65:11	<b>Auctions (1)</b>	57:1
<b>A</b>	<b>again (11)</b>	<b>applies (1)</b>	44:10	<b>beyond (1)</b>
	38:9;40:23;42:9;	60:5	<b>available (1)</b>	39:3
<b>ability (2)</b>	49:21;56:22;64:20;	<b>apply (1)</b>	58:14	<b>bias (1)</b>
57:20;63:6	68:17;73:16;77:5,11;	35:24	<b>awarded (4)</b>	76:5
<b>able (2)</b>	92:12	<b>appreciable (1)</b>	61:24;65:21;66:1;	<b>bid (5)</b>
31:20;39:2	<b>ago (4)</b>	69:12	69:3	31:15;34:24;35:1;
<b>above (1)</b>	33:17;62:3,18;	<b>appropriate (1)</b>	<b>aware (18)</b>	45:10;63:15
89:10	71:13	72:19	33:24;36:9,15,19,	<b>bids (1)</b>
<b>Absolutely (4)</b>	<b>agree (8)</b>	<b>approval (1)</b>	23;52:10,14;54:1,10;	85:21
30:11;45:16;46:12;	46:9;66:12,24;	85:4	55:10,22;57:7;58:12;	



<p><b>big (1)</b> 42:13</p> <p><b>bit (5)</b> 43:14;57:1,24; 58:24;94:7</p> <p><b>body (1)</b> 83:24</p> <p><b>border (1)</b> 32:9</p> <p><b>Boston (1)</b> 62:16</p> <p><b>both (4)</b> 47:8;72:12;78:16; 79:9</p> <p><b>Brattle (15)</b> 47:8;54:10,14,22; 55:11,23;56:13,15; 64:19;68:18,22;69:6, 14,16;88:17</p> <p><b>Brattle's (5)</b> 54:13,15;56:9; 64:9,16</p> <p><b>break (2)</b> 81:4;94:7</p> <p><b>briefly (1)</b> 88:11</p> <p><b>bring (3)</b> 41:11;46:5;62:12</p> <p><b>broad (1)</b> 83:2</p> <p><b>bucket (1)</b> 39:24</p> <p><b>build (2)</b> 32:23;33:2</p> <p><b>built (1)</b> 74:4</p> <p><b>bulk (2)</b> 30:3;69:20</p>	<p>92:10</p> <p><b>Canada (3)</b> 33:3;36:6,16</p> <p><b>Canadian (2)</b> 86:22;87:3</p> <p><b>capability (1)</b> 45:23</p> <p><b>Capacity (58)</b> 29:6,15,16,19;30:9, 10,14;31:11,22;34:8, 19;35:1;37:16,23; 41:23,24;42:4,5,6; 44:9;45:13;46:6,7; 48:10,15;51:5,11; 52:6,20;53:10;57:15, 21;60:5;62:1;63:6, 13;64:11,21;65:1,20; 67:20;69:2,11;78:6, 13,15;80:22;81:14; 82:2,5;89:22;90:10, 14;91:18;92:3;93:1; 94:16,17</p> <p><b>capacity-related (1)</b> 51:6</p> <p><b>case (13)</b> 53:8;71:2,17; 72:11;73:3;74:4; 76:23;78:16,17; 79:10,10;85:5;93:12</p> <p><b>CASPR (19)</b> 30:4;53:4,7,20,22; 56:18;57:13;81:13; 82:1,3,12,18;83:3,16; 84:9;85:19,22;94:18, 21</p> <p><b>Cat's (1)</b> 40:14</p> <p><b>CELT (1)</b> 46:13</p> <p><b>certain (11)</b> 37:4;54:11;56:12; 65:21,24;66:8,14; 79:2;91:10;92:24; 93:17</p> <p><b>Certainly (8)</b> 32:22;39:9,22; 46:15;69:22;76:12; 86:10;93:16</p> <p><b>Chair (2)</b> 39:5;40:12</p> <p><b>CHAIRMAN (21)</b> 39:11,15;40:9,13, 19;47:5,12,16,20,24; 55:1;75:21;76:2; 77:2,19;81:3,8; 83:12;88:4,7;95:2</p> <p><b>chance (2)</b> 56:9;71:1</p> <p><b>chances (1)</b> 70:22</p> <p><b>change (12)</b> 38:7;59:7,10,10, 14;70:21;79:14;80:7;</p>	<p>82:22;83:1;90:16; 94:15</p> <p><b>changed (3)</b> 51:10;72:19;79:21</p> <p><b>changes (6)</b> 32:6;59:1;80:5,8; 90:9,14</p> <p><b>chart (1)</b> 70:6</p> <p><b>chunk (1)</b> 45:14</p> <p><b>circumstance (1)</b> 74:24</p> <p><b>circumstances (2)</b> 54:11;56:13</p> <p><b>clear (9)</b> 37:22;38:2;45:1; 52:19;53:9,11;77:6; 90:1;93:10</p> <p><b>cleared (3)</b> 57:14;69:19;91:21</p> <p><b>clearing (7)</b> 43:15,22;44:9; 64:11,22;89:16; 91:20</p> <p><b>clears (2)</b> 56:21;90:2</p> <p><b>client (3)</b> 54:17;55:7,21</p> <p><b>clients (3)</b> 75:11,17;76:5</p> <p><b>CMSR (2)</b> 81:5,10</p> <p><b>coming (2)</b> 72:5;85:11</p> <p><b>commencing (1)</b> 95:10</p> <p><b>comment (1)</b> 69:16</p> <p><b>commercial (1)</b> 86:24</p> <p><b>Commissioner (5)</b> 77:20,23;81:9,11; 93:22</p> <p><b>commitment (1)</b> 64:14</p> <p><b>Committee (6)</b> 76:8;77:20;83:13, 21,23;88:5</p> <p><b>companies (1)</b> 38:10</p> <p><b>competitive (3)</b> 74:6,9;89:2</p> <p><b>competitors (3)</b> 75:6;76:19,21</p> <p><b>complicated (1)</b> 92:13</p> <p><b>computer (1)</b> 79:23</p> <p><b>concern (2)</b> 61:22;90:20</p> <p><b>concerns (1)</b> 51:1</p>	<p><b>conclude (1)</b> 69:21</p> <p><b>concluded (1)</b> 69:1</p> <p><b>conclusion (5)</b> 52:21;68:12;70:1; 72:22,24</p> <p><b>conclusions (3)</b> 72:6;73:15;90:16</p> <p><b>CONE (1)</b> 45:1</p> <p><b>confident (1)</b> 54:6</p> <p><b>confidential (5)</b> 35:4;50:18;52:18; 60:9;71:6</p> <p><b>Confidentiality (2)</b> 49:11;50:14</p> <p><b>confused (1)</b> 61:5</p> <p><b>confusing (1)</b> 65:9</p> <p><b>connect (1)</b> 33:3</p> <p><b>connection (2)</b> 49:5;59:23</p> <p><b>consequence (2)</b> 74:19;76:6</p> <p><b>consider (2)</b> 34:10;55:3</p> <p><b>consideration (1)</b> 87:6</p> <p><b>considered (2)</b> 84:7;93:9</p> <p><b>considering (1)</b> 93:18</p> <p><b>consistent (1)</b> 87:21</p> <p><b>constrained (1)</b> 94:13</p> <p><b>constraints (2)</b> 58:5;91:5</p> <p><b>construct (4)</b> 36:2;82:13;85:20; 91:7</p> <p><b>constructed (3)</b> 56:21;57:5,13</p> <p><b>construction (1)</b> 59:17</p> <p><b>consultant (1)</b> 55:20</p> <p><b>contemplate (1)</b> 56:4</p> <p><b>contemplated (1)</b> 92:22</p> <p><b>context (5)</b> 44:1;75:6;76:20; 77:7;81:1</p> <p><b>continue (1)</b> 77:3</p> <p><b>contract (5)</b> 42:2,14;43:1; 62:12;87:5</p>	<p><b>contracts (3)</b> 42:9,15;85:10</p> <p><b>converter (1)</b> 59:11</p> <p><b>corporate (2)</b> 87:5,17</p> <p><b>correlate (1)</b> 71:15</p> <p><b>correlating (1)</b> 73:8</p> <p><b>cost (18)</b> 31:12;32:11,18,23; 33:2,14,17;34:11; 35:14;36:23;43:11, 12;59:22;60:10; 66:17,18;85:16; 86:21</p> <p><b>costs (7)</b> 32:21;33:7,12,20; 42:14;87:3,23</p> <p><b>Cote (8)</b> 40:16,17,22,24; 41:2;47:5,6,18</p> <p><b>counsel (3)</b> 54:16;56:6;77:22</p> <p><b>couple (6)</b> 30:12;35:18;41:9; 42:13;65:14;78:2</p> <p><b>course (5)</b> 45:14,18;54:18; 60:8;89:24</p> <p><b>cozy (1)</b> 84:20</p> <p><b>credibility (1)</b> 76:5</p> <p><b>Credit (1)</b> 41:23</p> <p><b>criticism (8)</b> 52:1,22,24;57:17; 63:4,5,7;67:17</p> <p><b>criticisms (2)</b> 58:21;61:16</p> <p><b>CROSS-EXAMINATION (2)</b> 40:21;48:2</p> <p><b>CSO (10)</b> 34:20;61:24;62:14; 64:3,24;66:19,21; 70:5,9;81:12</p> <p><b>curtail (2)</b> 36:6,17</p> <p><b>curtailed (2)</b> 35:20;63:21</p> <p><b>curve (2)</b> 69:2;70:7</p> <p><b>curves (9)</b> 45:6,7;70:5,8,9,22, 24;73:14;79:16</p> <p><b>customers (2)</b> 36:5;43:8</p>
<b>C</b>		<b>D</b>		
<p><b>calculated (2)</b> 64:10,21</p> <p><b>calculation (4)</b> 31:14;52:15;64:23; 65:18</p> <p><b>calculations (1)</b> 51:7</p> <p><b>call (1)</b> 70:11</p> <p><b>called (2)</b> 32:8;92:9</p> <p><b>calling (2)</b> 39:8;47:4</p> <p><b>came (8)</b> 30:5,6;51:9;89:4, 20;94:6,18,19</p> <p><b>can (20)</b> 30:20;41:24;42:2; 45:5,21;48:22;55:2, 5;61:4;69:20,21,24; 76:3,10;77:3;82:13; 84:15,22;86:11;</p>	<p><b>Chairman (21)</b> 39:11,15;40:9,13, 19;47:5,12,16,20,24; 55:1;75:21;76:2; 77:2,19;81:3,8; 83:12;88:4,7;95:2</p>	<p><b>commentary (1)</b> 69:16</p> <p><b>commentary (1)</b> 86:24</p> <p><b>commentary (1)</b> 77:20,23;81:9,11; 93:22</p> <p><b>commentary (1)</b> 64:14</p> <p><b>commentary (6)</b> 76:8;77:20;83:13, 21,23;88:5</p> <p><b>commentary (1)</b> 38:10</p> <p><b>commentary (3)</b> 74:6,9;89:2</p> <p><b>commentary (3)</b> 75:6;76:19,21</p> <p><b>commentary (1)</b> 92:13</p> <p><b>commentary (1)</b> 79:23</p> <p><b>commentary (2)</b> 61:22;90:20</p> <p><b>commentary (1)</b> 51:1</p>	<p><b>daily (2)</b></p>	

42:20;43:3 <b>date (1)</b> 36:2 <b>Dawn (3)</b> 40:24;65:5;70:11 <b>Day (4)</b> 43:16;95:6,7,9 <b>deadline (2)</b> 50:20;85:14 <b>December (6)</b> 43:19;49:8;50:10; 83:24;84:4,10 <b>decide (2)</b> 38:11;84:23 <b>decreasing (1)</b> 78:6 <b>deficits (1)</b> 91:6 <b>definitely (1)</b> 44:16 <b>delay (1)</b> 30:8 <b>deliver (3)</b> 35:13;37:4;91:4 <b>deliverability (7)</b> 30:14;33:15;57:22; 58:5;60:4,19;89:22 <b>deliveries (1)</b> 35:20 <b>delivery (1)</b> 41:18 <b>demand (1)</b> 45:7 <b>demonstrated (1)</b> 69:3 <b>denied (1)</b> 53:13 <b>depend (2)</b> 42:19;43:3 <b>dependent (1)</b> 57:8 <b>depending (1)</b> 84:16 <b>depends (4)</b> 41:22;42:9;77:11; 81:18 <b>derived (1)</b> 48:15 <b>describe (2)</b> 48:8;91:16 <b>described (3)</b> 30:16;48:11;62:4 <b>design (9)</b> 51:5,22;87:5;90:9; 91:13;92:3,22;93:5,6 <b>desire (2)</b> 85:6;86:18 <b>detail (1)</b> 52:12 <b>determination (2)</b> 62:21;73:7 <b>determine (5)</b> 31:14,24;52:19;	58:4;82:18 <b>determined (2)</b> 30:16;31:10 <b>developing (1)</b> 92:21 <b>difference (5)</b> 43:21;45:18;80:10, 13,14 <b>differences (1)</b> 79:20 <b>different (9)</b> 36:1;44:11;46:20; 79:17;80:7,15;87:19; 89:18,19 <b>difficult (5)</b> 44:8,13;45:5,12; 85:20 <b>direct (3)</b> 35:18;49:1;70:2 <b>directed (1)</b> 54:16 <b>direction (1)</b> 42:24 <b>directly (1)</b> 76:6 <b>directs (1)</b> 55:21 <b>disagree (1)</b> 76:17 <b>discovery (1)</b> 60:8 <b>discuss (2)</b> 43:14;48:9 <b>discussed (5)</b> 51:17;52:11;58:7; 89:23;94:19 <b>discussing (3)</b> 41:10;42:7;91:23 <b>discussion (8)</b> 44:2;46:4;70:19; 78:4;86:21;90:21; 91:3,11 <b>dispatch (1)</b> 90:21 <b>dispatching (1)</b> 90:23 <b>displace (2)</b> 74:21;75:11 <b>distributed (1)</b> 46:23 <b>document (1)</b> 65:15 <b>documents (1)</b> 36:9 <b>dollar (3)</b> 43:23;45:19,21 <b>domestic (2)</b> 36:10,17 <b>done (19)</b> 31:24;32:5;33:7; 39:10,17;50:21; 56:24;61:14;63:1,3; 71:20,22,24;72:14,	15;84:9;86:15,18; 95:3 <b>down (11)</b> 29:23;38:3;42:22; 77:14;78:12,13,16; 79:4;80:3;84:3,5 <b>draw (1)</b> 70:1 <b>drive (3)</b> 74:14;86:2,5 <b>due (1)</b> 92:23 <b>during (6)</b> 34:21;52:12;60:7; 67:11;70:2;91:5	67:14 <b>enough (2)</b> 35:6;37:13 <b>ensure (1)</b> 60:4 <b>enter (3)</b> 31:11,20;41:11 <b>entering (1)</b> 30:10 <b>entity (2)</b> 65:19;66:13 <b>entry (3)</b> 78:24;80:16;94:1 <b>equilibrium (2)</b> 44:21,24 <b>essentially (4)</b> 37:9;39:7;62:21; 65:21 <b>established (2)</b> 76:13;89:18 <b>establishes (1)</b> 76:14 <b>establishing (1)</b> 91:9 <b>estimate (1)</b> 71:12 <b>estimated (1)</b> 60:10 <b>estimates (1)</b> 48:14 <b>even (8)</b> 46:17,19;69:13; 78:9;82:1,2;89:10; 90:22 <b>event (2)</b> 64:5;73:5 <b>events (4)</b> 35:18;63:20;67:12; 73:3 <b>everybody (1)</b> 45:9 <b>everybody's (1)</b> 40:15 <b>everyone (1)</b> 95:6 <b>evidence (2)</b> 63:23;76:14 <b>exacerbated (1)</b> 90:20 <b>exactly (1)</b> 72:2 <b>exaggeration (1)</b> 48:17 <b>EXAMINATION (1)</b> 88:12 <b>example (4)</b> 59:18;64:1;66:4; 92:5 <b>exceed (1)</b> 92:23 <b>except (1)</b> 67:1 <b>exchange (1)</b>	66:22 <b>exhibit (1)</b> 43:15 <b>exhibits (1)</b> 46:5 <b>existing (2)</b> 30:2;69:4 <b>exit (2)</b> 79:1;80:16 <b>expect (3)</b> 36:5;79:7;87:24 <b>expectation (2)</b> 39:1;86:17 <b>expensive (1)</b> 81:20 <b>experience (2)</b> 69:10;87:11 <b>expert (2)</b> 47:11;55:15 <b>exports (2)</b> 36:6,18 <b>exposure (2)</b> 63:17;91:22 <b>extensive (1)</b> 62:11 <b>extent (4)</b> 60:15;75:9,10; 94:10
<b>E</b>			<b>F</b>	
			<b>face (1)</b> 77:9 <b>Facing (1)</b> 62:11 <b>fact (6)</b> 54:5;55:22;58:4, 12;60:7;67:9 <b>factor (4)</b> 36:21,21;37:1,10 <b>factors (1)</b> 44:15 <b>fail (3)</b> 76:6,11,12 <b>failure (1)</b> 91:4 <b>fair (4)</b> 35:6;37:13;47:9; 93:15 <b>fall (1)</b> 39:23 <b>familiar (3)</b> 41:14;46:13;68:19 <b>far (3)</b> 45:3,17;90:23 <b>favor (1)</b> 36:17 <b>FCA (8)</b> 43:19;44:5;61:13; 69:1,2;85:7,13,24 <b>February (5)</b> 35:2,3,7;49:20; 85:8	

<p><b>feel (1)</b> 55:4</p> <p><b>FERC (8)</b> 84:22,23;85:1,3, 24;86:5,13,14</p> <p><b>few (5)</b> 33:9;34:1;38:12; 46:16;76:3</p> <p><b>Figure (2)</b> 70:3,15</p> <p><b>file (1)</b> 50:4</p> <p><b>filed (2)</b> 49:19;51:14</p> <p><b>filing (3)</b> 84:12,14,19</p> <p><b>filings (3)</b> 50:8;84:22;85:1</p> <p><b>final (2)</b> 61:7;84:3</p> <p><b>Finally (2)</b> 34:1;37:14</p> <p><b>financial (1)</b> 63:9</p> <p><b>fine (2)</b> 39:4;64:3</p> <p><b>first (19)</b> 31:8;34:24,24; 36:5,10;41:22;42:13; 50:17;51:24;65:13; 68:24;77:21;79:14; 81:14;82:6;83:15; 89:11;93:9,15</p> <p><b>five (1)</b> 46:18</p> <p><b>five-minute (1)</b> 81:4</p> <p><b>flawed (1)</b> 48:16</p> <p><b>focus (1)</b> 57:2</p> <p><b>focusing (1)</b> 67:5</p> <p><b>folks (1)</b> 86:5</p> <p><b>follow (2)</b> 30:13;32:17</p> <p><b>following (3)</b> 32:21;39:13;84:1</p> <p><b>follow-ups (1)</b> 78:2</p> <p><b>formation (2)</b> 82:15,17</p> <p><b>forming (2)</b> 55:19;56:1</p> <p><b>formula (1)</b> 92:13</p> <p><b>forum (1)</b> 47:9</p> <p><b>Forward (20)</b> 29:6,16;34:8,19, 24;44:9;45:13;46:5; 51:5,11;52:20;53:10;</p>	<p>57:14;64:10,21; 69:11;72:17;78:24; 81:17;82:1</p> <p><b>Fowler (12)</b> 40:23;41:3;47:22; 48:4;54:23;65:13; 76:10,18;77:6;88:14; 94:23;95:3</p> <p><b>Fowler's (1)</b> 75:24</p> <p><b>frame (2)</b> 37:5;74:16</p> <p><b>Frayer (7)</b> 43:16;47:8;48:12; 49:24;54:5,24;88:17</p> <p><b>Frayer's (3)</b> 70:4,13;75:24</p> <p><b>front (3)</b> 44:2;48:19;86:6</p> <p><b>full (2)</b> 30:8;31:21</p> <p><b>full-time (1)</b> 56:11</p> <p><b>fully (5)</b> 30:19,20,23;31:6; 94:5</p> <p><b>function (1)</b> 80:5</p> <p><b>functioning (2)</b> 78:21;79:23</p> <p><b>fundamental (1)</b> 82:11</p> <p><b>further (3)</b> 39:6;88:3;94:24</p>	<p>76:4;78:12;84:14; 86:20;91:22</p> <p><b>Good (2)</b> 77:24;78:1</p> <p><b>governing (2)</b> 51:10;83:24</p> <p><b>great (5)</b> 52:11;85:5;86:2,4, 18</p> <p><b>greater (1)</b> 92:12</p> <p><b>Grounds (1)</b> 75:21</p> <p><b>Group (2)</b> 40:10;47:9</p> <p><b>groups (1)</b> 47:21</p> <p><b>guaranty (1)</b> 89:16</p> <p><b>guess (2)</b> 66:23;87:9</p>	<p>59:3;73:23</p> <p><b>HONIGBERG (21)</b> 39:11,15;40:9,13, 19;47:5,12,16,20,24; 55:1;75:21;76:2; 77:2,19;81:3,8; 83:12;88:4,7;95:2</p> <p><b>hopefully (1)</b> 84:8</p> <p><b>hour (4)</b> 35:10,12,14;62:7</p> <p><b>HQ (12)</b> 35:19;36:5,10,15; 60:16;62:13;63:21; 64:3,12,24;67:9,10</p> <p><b>hurdles (2)</b> 38:1;42:3</p> <p><b>hydro (1)</b> 41:12</p>	<p><b>including (2)</b> 87:2;90:10</p> <p><b>inconsistent (1)</b> 63:16</p> <p><b>incorporate (1)</b> 68:22</p> <p><b>incorrect (2)</b> 80:4;89:1</p> <p><b>increase (4)</b> 70:22;71:1,8;89:7</p> <p><b>increased (2)</b> 71:16;72:9</p> <p><b>incumbent (2)</b> 75:2,5</p> <p><b>incur (1)</b> 36:16</p> <p><b>incurred (1)</b> 87:3</p> <p><b>incurring (1)</b> 66:15</p> <p><b>Indeed (1)</b> 52:13</p> <p><b>independent (4)</b> 58:3;86:22;87:2,7</p> <p><b>indicated (2)</b> 31:17;38:21</p> <p><b>indicative (3)</b> 44:16;45:5,8</p> <p><b>individual (2)</b> 38:10;45:3</p> <p><b>inefficient (2)</b> 38:13;39:20</p> <p><b>infinity (1)</b> 92:19</p> <p><b>influenced (1)</b> 46:10</p> <p><b>information (7)</b> 50:18;55:18;60:9, 13;61:2;68:24;73:7</p> <p><b>infrastructure (1)</b> 59:15</p> <p><b>initial (2)</b> 51:12;83:20</p> <p><b>inside (1)</b> 80:6</p> <p><b>installations (1)</b> 46:11</p> <p><b>Installed (2)</b> 46:7;78:5</p> <p><b>insure (1)</b> 92:1</p> <p><b>interaction (1)</b> 86:13</p> <p><b>interconnection (1)</b> 33:10</p> <p><b>interface (2)</b> 32:7,8</p> <p><b>internal (3)</b> 62:24;63:9;79:22</p> <p><b>interpret (1)</b> 89:11</p> <p><b>intervenor (1)</b> 47:21</p>
			<b>I</b>	
		<b>H</b>		
		<p><b>Hampshire (7)</b> 32:9,24;33:4; 38:19;39:23;40:3; 90:24</p> <p><b>happen (5)</b> 69:22;82:19;84:15; 94:17,19</p> <p><b>happened (1)</b> 50:11</p> <p><b>happening (2)</b> 80:6;85:19</p> <p><b>happens (1)</b> 79:1</p> <p><b>happy (2)</b> 49:2;89:13</p> <p><b>harm (1)</b> 77:9</p> <p><b>head (1)</b> 40:14</p> <p><b>heads (1)</b> 40:11</p> <p><b>hear (1)</b> 85:23</p> <p><b>hearing (2)</b> 81:7;95:9</p> <p><b>heavily (1)</b> 94:12</p> <p><b>held (1)</b> 64:3</p> <p><b>Hello (2)</b> 40:23;48:4</p> <p><b>high (4)</b> 42:23;43:11;44:17; 77:15</p> <p><b>higher (2)</b> 72:18;89:9</p> <p><b>highly (1)</b> 54:6</p> <p><b>Hmm-hmm (2)</b></p>	<p><b>Iacopino (4)</b> 83:13,14,15;88:2</p> <p><b>ICR (3)</b> 45:6;78:12;79:21</p> <p><b>idea (8)</b> 42:24;82:8,12; 84:2,21;85:18;86:7; 94:9</p> <p><b>ideas (1)</b> 45:6</p> <p><b>identified (2)</b> 33:7;60:23</p> <p><b>identifies (1)</b> 60:15</p> <p><b>identify (3)</b> 37:19;60:3;61:6</p> <p><b>IMM (8)</b> 85:17;87:10,14,20; 88:22,22;89:14,19</p> <p><b>immense (1)</b> 56:8</p> <p><b>impact (14)</b> 29:6,13;30:3; 42:11,22;43:4;58:9, 13,18;60:20;67:21; 90:5,8,17</p> <p><b>impacts (4)</b> 42:6,18;61:7;73:22</p> <p><b>imperfect (1)</b> 82:18</p> <p><b>importantly (1)</b> 65:12</p> <p><b>impossible (1)</b> 87:9</p> <p><b>incentive (1)</b> 75:18</p> <p><b>include (1)</b> 86:23</p> <p><b>included (7)</b> 31:13;32:22;33:12, 13,21,22;91:8</p>	
	<b>G</b>			
	<p><b>gaining (1)</b> 83:3</p> <p><b>gather (1)</b> 55:17</p> <p><b>general (2)</b> 82:22;85:9</p> <p><b>Generally (3)</b> 37:2;41:14;82:14</p> <p><b>generation (5)</b> 33:18;40:1;80:1,1, 2</p> <p><b>generator (1)</b> 29:24</p> <p><b>generators (16)</b> 30:18,20,23;31:5, 21;32:4;67:22;68:2, 14;74:2,22;75:2,5,11; 81:21,21</p> <p><b>geographic (1)</b> 39:3</p> <p><b>gets (4)</b> 29:16;56:20;57:5; 81:12</p> <p><b>given (1)</b> 61:1</p> <p><b>Goes (5)</b></p>			

<p><b>into (15)</b>                  29:16;35:2;39:23;                  41:21,24;42:20;43:3;                  49:4;62:13;63:13,22;                  74:6;77:12;85:7;94:1</p> <p><b>introduced (2)</b>                  74:21;92:8</p> <p><b>introducing (1)</b>                  74:5</p> <p><b>investigate (1)</b>                  57:20</p> <p><b>involved (1)</b>                  38:1</p> <p><b>irrelevant (1)</b>                  53:23</p> <p><b>ISO (5)</b>                  84:16,18,19;85:16;                  92:1</p> <p><b>ISO-New (13)</b>                  30:15;31:9;32:13;                  51:9;52:7;57:21;                  60:1,15;61:8,9,17,19;                  92:20</p> <p><b>ISO's (1)</b>                  92:3</p> <p><b>issue (10)</b>                  32:18;51:2,2,9;                  52:4;58:2;60:17;                  61:3;62:19;82:21</p> <p><b>issued (1)</b>                  43:21</p> <p><b>issues (2)</b>                  48:9;61:16</p>	<p style="text-align: center;"><b>L</b></p> <p><b>large (4)</b>                  29:20;32:7;45:13;                  75:2</p> <p><b>last (3)</b>                  46:16;73:24;83:21</p> <p><b>late (1)</b>                  85:14</p> <p><b>later (1)</b>                  35:8</p> <p><b>lay (1)</b>                  50:24</p> <p><b>leading (1)</b>                  48:17</p> <p><b>least (2)</b>                  42:17;87:24</p> <p><b>left (1)</b>                  70:24</p> <p><b>LEI (24)</b>                  34:7;49:19;50:19;                  51:4,11,20;52:5,14,                  18,23;54:1;57:20;                  61:22;64:18,21;                  65:19;66:11;67:18;                  68:1;71:3,16;72:1,                  10;73:1</p> <p><b>LEI's (5)</b>                  48:13;49:16;67:24;                  72:15;73:15</p> <p><b>less (4)</b>                  30:1;31:4,4;39:24</p> <p><b>level (2)</b>                  69:23;79:3</p> <p><b>light (3)</b>                  58:21;61:1;72:19</p> <p><b>likely (2)</b>                  36:21;37:3</p> <p><b>limited (1)</b>                  39:16</p> <p><b>line (5)</b>                  32:24;33:3;41:10;                  61:21;90:15</p> <p><b>Lines (5)</b>                  51:3;52:4;57:19;                  67:18;94:2</p>	<p>23;85:3;86:10,17</p> <p><b>longer (4)</b>                  52:1;61:3;66:20;                  82:6</p> <p><b>long-run (1)</b>                  83:1</p> <p><b>look (11)</b>                  37:2;39:20;41:6;                  44:4;46:18;62:19;                  69:18;71:21;72:16;                  78:24;88:22</p> <p><b>looked (2)</b>                  64:14,16</p> <p><b>looking (3)</b>                  47:1;72:21;90:23</p> <p><b>Looks (3)</b>                  43:16;84:10,12</p> <p><b>lose (3)</b>                  75:12;76:24;92:11</p> <p><b>loss (4)</b>                  38:23,23,24;92:11</p> <p><b>losses (1)</b>                  92:23</p> <p><b>lost (1)</b>                  79:7</p> <p><b>lot (7)</b>                  41:22;44:11,14;                  57:2;66:23;85:10;                  86:13</p> <p><b>lots (2)</b>                  87:16,18</p> <p><b>low (5)</b>                  42:21;43:11;44:19;                  69:5;77:13</p> <p><b>low-cost (3)</b>                  41:12,18;43:6</p> <p><b>lower (7)</b>                  69:13,22;74:12,21;                  78:9;82:4,9</p> <p><b>lower-priced (1)</b>                  74:7</p>	<p>45:1,2,10,13,20;46:6;                  48:14;51:5,11,21;                  53:17;60:6;63:13;                  68:6,10;69:2,5;                  77:14;79:2,5,5;80:8,                  15;82:5,17;86:22;                  87:2,7,11;89:17;92:8,                  14,17,18;94:17</p> <p><b>marketplace (4)</b>                  74:6;75:13;76:20,                  21</p> <p><b>markets (8)</b>                  42:20;43:4;47:2;                  77:12;82:16;83:20;                  87:15,20</p> <p><b>Mass (11)</b>                  41:13,15,21;53:9,                  12,16;57:2,4,8,12;                  85:11</p> <p><b>Massachusetts (6)</b>                  32:9;41:19;42:1,                  16;43:7;56:20</p> <p><b>material (1)</b>                  67:19</p> <p><b>math (1)</b>                  45:22</p> <p><b>matter (1)</b>                  48:5</p> <p><b>may (18)</b>                  30:1;40:20;43:11,                  11;46:24;50:15,19;                  55:3;62:13;79:17,19;                  80:20;84:6,13;85:23;                  89:8;93:12;94:8</p> <p><b>maybe (5)</b>                  51:16;55:24;66:15;                  70:10;89:19</p> <p><b>mean (7)</b>                  29:14;42:2;73:1;                  78:11;86:5;88:19,21</p> <p><b>means (4)</b>                  76:12;89:16,17;                  90:1</p>	<p>59:17</p> <p><b>mid-March (4)</b>                  85:7,19,23;86:3</p> <p><b>might (10)</b>                  30:2;32:10;59:22;                  60:3;68:10;70:15;                  73:22;85:9,21;89:8</p> <p><b>miles (1)</b>                  62:15</p> <p><b>million (17)</b>                  35:15;46:1,2,3;                  64:4,13;65:1,3;66:4,                  13,15,22;91:9;92:5,6,                  14,16</p> <p><b>mind (4)</b>                  36:24;37:20;63:16;                  89:3</p> <p><b>minimum (2)</b>                  31:15;33:10</p> <p><b>minor (4)</b>                  82:11,23;83:6,7</p> <p><b>minute (2)</b>                  57:3;62:3</p> <p><b>miss (1)</b>                  85:23</p> <p><b>model (8)</b>                  73:16,19;78:21,23;                  79:23,24;80:6,11</p> <p><b>modeled (6)</b>                  34:9;68:1;71:3,6,                  17;72:10</p> <p><b>modeling (1)</b>                  68:5</p> <p><b>moment (5)</b>                  33:17;62:18;65:12,                  23;74:1</p> <p><b>Monday (1)</b>                  95:6</p> <p><b>money (3)</b>                  42:14,16;45:14</p> <p><b>monitor (5)</b>                  41:4;86:23;87:2,7,                  12</p> <p><b>month (1)</b>                  46:2</p> <p><b>MOPR (23)</b>                  31:13;32:18,22;                  33:21;34:12,14;52:7,                  14,23;53:13,19,22;                  54:2,12;56:14,16,21;                  88:15,18,20;89:3,15,                  94:20</p> <p><b>more (12)</b>                  43:14;65:12;72:17;                  74:5,9;81:1,20;84:6,                  14,21;90:22;93:21</p> <p><b>morning (6)</b>                  31:17;37:14;39:14;                  70:19;89:23;90:21</p> <p><b>most (4)</b>                  39:20;40:3;43:17;                  68:24</p> <p><b>move (2)</b></p>
<p style="text-align: center;"><b>J</b></p> <p><b>job (2)</b>                  38:23;56:11</p> <p><b>judgment (3)</b>                  55:6;71:14;74:10</p> <p><b>judgments (1)</b>                  68:9</p> <p><b>Julia (2)</b>                  48:11;70:12</p> <p><b>June (2)</b>                  43:17;62:6</p>	<p><b>level (2)</b>                  69:23;79:3</p> <p><b>light (3)</b>                  58:21;61:1;72:19</p> <p><b>likely (2)</b>                  36:21;37:3</p> <p><b>limited (1)</b>                  39:16</p> <p><b>line (5)</b>                  32:24;33:3;41:10;                  61:21;90:15</p> <p><b>Lines (5)</b>                  51:3;52:4;57:19;                  67:18;94:2</p>	<p style="text-align: center;"><b>M</b></p> <p><b>magnitude (5)</b>                  37:21;38:17;82:8;                  94:14,22</p> <p><b>main (1)</b>                  83:23</p> <p><b>Maine (3)</b>                  38:18;39:23;40:4</p> <p><b>major (2)</b>                  48:9;83:1</p> <p><b>makes (2)</b>                  66:12;69:9</p> <p><b>making (2)</b>                  51:6;80:24</p> <p><b>March (3)</b>                  49:21;85:12,14</p> <p><b>market (45)</b>                  29:15;30:9,10;                  31:11;34:20;37:23;                  38:3;41:20,24;42:6;</p>	<p><b>mechanism (6)</b>                  82:13;84:15;91:14,                  17,24;92:9</p> <p><b>megawatt (3)</b>                  35:10,12;62:7</p> <p><b>megawatts (17)</b>                  29:1,2,12,13;30:7;                  31:3,19;32:3;35:13;                  38:4,12,15;45:23;                  59:8;64:24;90:11;                  91:20</p> <p><b>members (4)</b>                  76:11;77:7,22;                  83:13</p> <p><b>mentioned (4)</b>                  29:22;34:2;42:3;                  53:4</p> <p><b>mentions (1)</b>                  41:12</p> <p><b>Merrimack (1)</b></p>	<p><b>Monday (1)</b>                  95:6</p> <p><b>money (3)</b>                  42:14,16;45:14</p> <p><b>monitor (5)</b>                  41:4;86:23;87:2,7,                  12</p> <p><b>month (1)</b>                  46:2</p> <p><b>MOPR (23)</b>                  31:13;32:18,22;                  33:21;34:12,14;52:7,                  14,23;53:13,19,22;                  54:2,12;56:14,16,21;                  88:15,18,20;89:3,15,                  94:20</p> <p><b>more (12)</b>                  43:14;65:12;72:17;                  74:5,9;81:1,20;84:6,                  14,21;90:22;93:21</p> <p><b>morning (6)</b>                  31:17;37:14;39:14;                  70:19;89:23;90:21</p> <p><b>most (4)</b>                  39:20;40:3;43:17;                  68:24</p> <p><b>move (2)</b></p>
<p style="text-align: center;"><b>K</b></p> <p><b>keep (1)</b>                  79:4</p> <p><b>kick (2)</b>                  35:8;53:20</p> <p><b>kilowatt (1)</b>                  45:24</p> <p><b>kilowatts (1)</b>                  46:1</p> <p><b>kind (10)</b>                  32:8;45:6;82:11,                  20;83:2;84:16,20;                  85:8;89:16;94:2</p> <p><b>known (2)</b>                  89:5;91:6</p>	<p><b>list (1)</b>                  66:20</p> <p><b>little (5)</b>                  43:14;57:1,24;                  58:24;94:7</p> <p><b>loads (1)</b>                  79:24</p> <p><b>located (2)</b>                  38:13,18</p> <p><b>locations (1)</b>                  38:22</p> <p><b>lodged (1)</b>                  61:16</p> <p><b>long (11)</b>                  44:18,20;66:20;                  69:24;81:18;82:5,21,</p>	<p><b>magnitude (5)</b>                  37:21;38:17;82:8;                  94:14,22</p> <p><b>main (1)</b>                  83:23</p> <p><b>Maine (3)</b>                  38:18;39:23;40:4</p> <p><b>major (2)</b>                  48:9;83:1</p> <p><b>makes (2)</b>                  66:12;69:9</p> <p><b>making (2)</b>                  51:6;80:24</p> <p><b>March (3)</b>                  49:21;85:12,14</p> <p><b>market (45)</b>                  29:15;30:9,10;                  31:11;34:20;37:23;                  38:3;41:20,24;42:6;</p>	<p><b>mechanism (6)</b>                  82:13;84:15;91:14,                  17,24;92:9</p> <p><b>megawatt (3)</b>                  35:10,12;62:7</p> <p><b>megawatts (17)</b>                  29:1,2,12,13;30:7;                  31:3,19;32:3;35:13;                  38:4,12,15;45:23;                  59:8;64:24;90:11;                  91:20</p> <p><b>members (4)</b>                  76:11;77:7,22;                  83:13</p> <p><b>mentioned (4)</b>                  29:22;34:2;42:3;                  53:4</p> <p><b>mentions (1)</b>                  41:12</p> <p><b>Merrimack (1)</b></p>	<p><b>Monday (1)</b>                  95:6</p> <p><b>money (3)</b>                  42:14,16;45:14</p> <p><b>monitor (5)</b>                  41:4;86:23;87:2,7,                  12</p> <p><b>month (1)</b>                  46:2</p> <p><b>MOPR (23)</b>                  31:13;32:18,22;                  33:21;34:12,14;52:7,                  14,23;53:13,19,22;                  54:2,12;56:14,16,21;                  88:15,18,20;89:3,15,                  94:20</p> <p><b>more (12)</b>                  43:14;65:12;72:17;                  74:5,9;81:1,20;84:6,                  14,21;90:22;93:21</p> <p><b>morning (6)</b>                  31:17;37:14;39:14;                  70:19;89:23;90:21</p> <p><b>most (4)</b>                  39:20;40:3;43:17;                  68:24</p> <p><b>move (2)</b></p>

<p>45:6;80:14 <b>moved (2)</b> 70:24;79:20 <b>moving (1)</b> 73:14 <b>MRI (1)</b> 70:7 <b>much (7)</b> 40:1,6;42:14; 45:17;83:8;92:8,11 <b>multiple (1)</b> 55:12 <b>Municipal (1)</b> 40:10</p>	<p><b>non-performance (10)</b> 34:4,11;35:7,23; 36:22;37:3;61:24; 67:3,6,8 <b>north (1)</b> 62:16 <b>Northern (36)</b> 29:11,16;30:5,9,17, 21;31:10,14,20;32:2, 21,23;34:19;35:1; 37:22;38:5,14;39:3, 21;53:8;61:11;68:3, 7,15;74:20;75:7,9,10; 76:6,21;81:12;90:8; 93:24;94:1,10,11 <b>North-South (1)</b> 32:7 <b>noted (1)</b> 63:20 <b>notification (1)</b> 85:16 <b>November (1)</b> 95:10 <b>NPT (15)</b> 36:21;41:11;52:7; 56:13,16;58:4;62:13; 67:20;74:3,5;75:18; 76:24;77:8,11,12 <b>number (9)</b> 46:9;63:18;89:1,2, 4,5,7,10,14 <b>numbers (3)</b> 73:20;88:23,24 <b>number's (1)</b> 52:18</p>	<p><b>offered (7)</b> 42:20,21,23;43:3; 71:12;77:13,14 <b>offering (4)</b> 30:1;54:19;68:10; 74:12 <b>offers (1)</b> 43:2 <b>offset (1)</b> 94:21 <b>old (1)</b> 38:13 <b>older (1)</b> 81:21 <b>oldest (1)</b> 39:20 <b>once (1)</b> 65:21 <b>one (26)</b> 29:18,18;30:20,23; 35:18,19;36:3;41:13; 45:4,21;53:2;59:7; 64:2;70:12;73:12,24; 78:8;84:6,14,18,23; 85:8;86:20;89:12; 92:6;93:21 <b>ones (2)</b> 33:24;42:13 <b>one-year (1)</b> 69:18 <b>only (7)</b> 43:7;53:8;66:17, 18;71:10;73:14; 92:10 <b>operation (1)</b> 87:20 <b>opinion (2)</b> 31:12,18 <b>opinions (5)</b> 47:4;49:5;54:18; 55:19;56:2 <b>opportunities (2)</b> 41:11,13 <b>option (3)</b> 30:24;31:2,8 <b>options (1)</b> 84:7 <b>order (8)</b> 30:17;31:5,10; 32:2;38:17;86:2; 94:14,22 <b>original (6)</b> 63:11;67:24;80:3; 89:4;92:3;94:9 <b>others (2)</b> 37:1;56:9 <b>otherwise (2)</b> 45:8;73:21 <b>out (13)</b> 44:15;46:18;50:24; 56:9;74:14;78:22; 79:1,20;85:22;86:2; 87:6,8;92:18</p>	<p><b>outages (1)</b> 64:2 <b>out-of-market (1)</b> 85:10 <b>outside (2)</b> 68:9;90:24 <b>over (9)</b> 30:5;44:20;45:14, 18;46:16;52:7;79:16; 82:5;94:7 <b>overall (1)</b> 34:16 <b>overcome (1)</b> 42:2 <b>overruled (1)</b> 77:3 <b>overwhelming (2)</b> 56:10;92:2 <b>own (7)</b> 37:2;38:7,11; 62:20;63:9;68:9;78:3</p>	<p>57:21;61:11;68:3,7, 15;74:20;75:7,9,10; 76:6,21;81:12;89:21; 90:8;94:1,10 <b>passed (1)</b> 94:20 <b>passing (6)</b> 88:15,18,19;89:2, 12,15 <b>Pass's (1)</b> 31:14 <b>past (1)</b> 87:12 <b>path (1)</b> 72:23 <b>Pause (2)</b> 70:16;80:21 <b>pay (2)</b> 45:23;62:11 <b>paying (1)</b> 45:24 <b>payment (2)</b> 91:19;92:15 <b>payments (2)</b> 93:11,12 <b>pays (1)</b> 60:16 <b>penalties (17)</b> 37:6;62:5,11;64:4; 65:22,23;66:3,5,5,9, 16;91:3;92:2,4,6,15, 23 <b>penalty (11)</b> 34:4,12,22;35:8, 24;36:16,22;61:23; 63:17,23;91:21 <b>people (3)</b> 82:24;85:20;87:16 <b>per (3)</b> 35:10;45:24;62:7 <b>perception (1)</b> 85:9 <b>perfectly (1)</b> 82:19 <b>perform (1)</b> 52:23 <b>Performance (6)</b> 62:12;91:7,13; 92:21;93:5,12 <b>performed (1)</b> 53:2 <b>perhaps (2)</b> 31:2;32:1 <b>period (5)</b> 30:5;64:14,24; 65:2;69:24 <b>photovoltaic (2)</b> 46:10,14 <b>phrased (1)</b> 55:2 <b>pie (1)</b> 70:6 <b>piece (2)</b></p>
<p><b>N</b></p>	<p><b>O</b></p>	<p><b>P</b></p>	<p><b>P</b></p>	
<p><b>narrow (1)</b> 39:3 <b>nearly (1)</b> 62:15 <b>necessarily (1)</b> 87:18 <b>necessary (5)</b> 32:2;36:6;53:11; 60:4,16 <b>need (6)</b> 53:16;70:11,13; 76:18;81:1;89:21 <b>needed (1)</b> 33:18 <b>NEEDLEMAN (22)</b> 39:5;47:3,13,14; 48:1,3,4;55:9;65:5,7; 70:10,17;76:3,4,12, 16;77:4,17;88:14; 90:3,4;91:8 <b>negative (1)</b> 92:17 <b>NEPGA (4)</b> 75:1,1;76:10;77:7 <b>NEPOOL (3)</b> 83:19,24;84:6 <b>Net (6)</b> 45:1;78:5,12; 92:16;93:24;94:15 <b>new (23)</b> 30:16;32:9,24; 33:3,17;35:20;38:5, 14,18;39:4,8,13,21, 22;40:3;47:4;62:13; 63:22;69:3;80:16; 90:24;94:1,12 <b>next (2)</b> 67:17;80:20 <b>non-approval (1)</b> 85:4 <b>non-confidentially (1)</b> 39:18 <b>None (2)</b> 40:12;48:1 <b>non-existent (1)</b> 80:23</p>	<p><b>object (1)</b> 39:6 <b>objected (1)</b> 47:15 <b>Objection (4)</b> 47:3,17;54:21; 75:20 <b>objection's (1)</b> 77:3 <b>obligation (3)</b> 62:1;65:20;82:3 <b>obligations (4)</b> 36:11,17;61:23; 66:20 <b>obviously (1)</b> 38:21 <b>occasions (2)</b> 55:12;87:16 <b>occur (2)</b> 30:21;55:23 <b>occurred (2)</b> 43:20;64:3 <b>offer (6)</b> 49:5;77:11,16; 81:19;89:11,18</p>	<p><b>page (10)</b> 48:22;51:3;52:4; 57:19;61:21;64:10; 65:11;67:17;70:14, 15 <b>pages (1)</b> 49:2 <b>paid (1)</b> 42:15 <b>Paper (4)</b> 91:6,13;92:21;93:5 <b>Pappas (7)</b> 39:11,12;40:5,7; 59:21;62:4;71:12 <b>paragraph (3)</b> 41:9,17;65:11 <b>paraphrasing (1)</b> 64:6 <b>part (4)</b> 55:16;60:6;61:10; 75:2 <b>participant-friendly (1)</b> 86:8 <b>Participants (1)</b> 83:23 <b>particular (3)</b> 41:8;73:3;88:16 <b>particularly (3)</b> 48:15;85:11;93:18 <b>parties (1)</b> 60:9 <b>party (1)</b> 49:11 <b>Pass (38)</b> 29:11,16;30:5,9,17, 21;31:10,20;32:3,21; 34:19;35:1;37:22; 52:7;53:8,13,19,22; 54:2,12;56:14,16;</p>		

<p>79:22;82:11  <b>Pittsburgh (1)</b>                  33:3  <b>plants (2)</b>                  39:20;90:24  <b>plays (1)</b>                  56:19  <b>please (1)</b>                  41:1  <b>pm (4)</b>                  81:6,7;95:8,9  <b>point (7)</b>                  39:8;43:13;49:1;                  58:16;78:19;79:16;                  93:23  <b>policy (2)</b>                  74:17,20  <b>pool (2)</b>                  44:18;45:21  <b>position (1)</b>                  62:10  <b>positive (1)</b>                  63:18  <b>possibility (1)</b>                  84:13  <b>possible (3)</b>                  35:3;61:6;66:16  <b>post-project (1)</b>                  80:10  <b>potential (6)</b>                  37:6,15,19;46:22;                  63:23;76:22  <b>potentially (5)</b>                  53:15;73:18;75:8;                  77:9;82:4  <b>power (5)</b>                  41:12,18,21;67:11;                  74:7  <b>practical (1)</b>                  69:10  <b>practice (1)</b>                  86:6  <b>predict (2)</b>                  44:8;45:9  <b>predicted (1)</b>                  44:5  <b>prediction (2)</b>                  43:21;44:14  <b>predictions (4)</b>                  45:4,17;46:14,17  <b>prefiled (2)</b>                  34:3;41:7  <b>prepared (1)</b>                  43:18  <b>pre-project (1)</b>                  80:10  <b>presented (1)</b>                  61:2  <b>Presumably (1)</b>                  42:15  <b>presumption (1)</b>                  42:17  <b>pretty (3)</b></p>	<p>45:22;56:7;82:10  <b>prevailing (1)</b>                  76:7  <b>prevents (1)</b>                  92:18  <b>previous (1)</b>                  47:7  <b>price (24)</b>                  29:6,9,13;38:3,6,8;                  64:12,22;69:23;                  74:12;78:12,15;80:9,                  23;81:16;82:15,17,                  17;83:8;89:18;90:1;                  91:20;94:11,16  <b>prices (30)</b>                  42:12,22;43:15,22;                  44:9,17,18;69:5,14,                  22;72:16,18,21;                  74:21;77:13,14,15;                  78:22;79:2,6,10,24;                  80:2,3,3,7,17;82:4,9;                  83:1  <b>price-taker (2)</b>                  63:13,14  <b>price-takers (1)</b>                  34:8  <b>price-taking (1)</b>                  29:24  <b>pricing (1)</b>                  70:6  <b>primarily (1)</b>                  39:22  <b>prior (1)</b>                  68:23  <b>probably (3)</b>                  35:2;44:2;52:10  <b>proceed (2)</b>                  40:18;83:22  <b>proceeding (4)</b>                  50:5;52:12;55:11;                  76:1  <b>process (9)</b>                  53:5,7;60:6;61:8,                  12;83:19;85:13;                  86:14;88:22  <b>product (1)</b>                  74:6  <b>professional (1)</b>                  55:16  <b>profile (1)</b>                  62:20  <b>prohibit (1)</b>                  87:1  <b>project (13)</b>                  34:16;52:19;56:19;                  57:4,8,12;59:7;63:2,                  12;78:16;79:10;87:4;                  90:9  <b>projected (1)</b>                  48:10  <b>projections (2)</b>                  47:1,7  <b>Project's (1)</b></p>	<p>63:8  <b>project-specific (2)</b>                  37:8;38:10  <b>properly (1)</b>                  78:21  <b>provide (3)</b>                  34:21;56:6;88:23  <b>provided (2)</b>                  55:13;60:8  <b>providing (1)</b>                  85:16  <b>provision (1)</b>                  93:19  <b>public (2)</b>                  39:2;48:11  <b>pure (1)</b>                  84:21  <b>purpose (2)</b>                  48:6;49:6  <b>purposes (1)</b>                  87:19  <b>push (4)</b>                  77:14,15;87:13,22  <b>pushing (1)</b>                  42:22  <b>put (6)</b>                  56:7;65:5,23;92:1,                  9;94:9</p>	<p><b>rationale (1)</b>                  76:15  <b>react (1)</b>                  45:11  <b>read (7)</b>                  43:6;54:13,15,20;                  56:15;65:13;69:7  <b>real (1)</b>                  87:23  <b>really (16)</b>                  40:1;43:9,12;46:4;                  56:3;61:6;62:19;                  74:15;76:22;79:18;                  80:12;83:2,7;86:15;                  87:18,21  <b>reason (3)</b>                  53:14;74:8,13  <b>reasonable (1)</b>                  44:3  <b>reasons (1)</b>                  76:3  <b>rebuttal (3)</b>                  50:2;64:9;70:14  <b>recall (19)</b>                  35:21;36:7;37:16;                  43:24;53:5;54:8;                  57:10,22;58:15,16;                  59:4,6;67:22;68:1;                  70:19;90:6,12;91:10;                  94:2  <b>receive (1)</b>                  67:10  <b>recent (1)</b>                  43:17  <b>recently (1)</b>                  69:1  <b>Recess (1)</b>                  81:6  <b>recognized (3)</b>                  61:23;67:19;92:22  <b>recollection (2)</b>                  47:14;63:10  <b>record (4)</b>                  50:7;56:8;61:10;                  76:13  <b>record's (1)</b>                  77:6  <b>redacted (1)</b>                  49:15  <b>redirect (2)</b>                  88:8,12  <b>reduced (1)</b>                  79:11  <b>reducing (1)</b>                  90:10  <b>reduction (1)</b>                  89:6  <b>referenced (2)</b>                  58:6,8  <b>referred (1)</b>                  88:16  <b>regarding (3)</b>                  30:13;43:17;86:21</p>	<p><b>region (1)</b>                  38:4  <b>regularly (1)</b>                  46:18  <b>Reimers (1)</b>                  40:14  <b>related (1)</b>                  94:8  <b>relates (1)</b>                  63:5  <b>relating (1)</b>                  48:10  <b>relation (1)</b>                  66:14  <b>relatively (2)</b>                  38:12;82:23  <b>released (1)</b>                  43:18  <b>relevancy (1)</b>                  54:22  <b>relevant (4)</b>                  54:20;55:5;59:10,                  14  <b>Reliability (2)</b>                  33:6;63:20  <b>relying (1)</b>                  50:19  <b>remember (7)</b>                  51:7,13,18;68:4;                  69:5;70:5;78:4  <b>remembered (1)</b>                  58:17  <b>Rephrase (1)</b>                  56:22  <b>replace (1)</b>                  29:1  <b>replaces (1)</b>                  29:12  <b>report (9)</b>                  43:18,20;46:13;                  49:16,20;50:2;51:12;                  64:9;70:13  <b>represent (1)</b>                  48:5  <b>require (2)</b>                  32:6;36:10  <b>required (1)</b>                  33:9  <b>Requirement (2)</b>                  46:7;78:6  <b>requirements (1)</b>                  43:1  <b>rerun (3)</b>                  73:16,19;80:11  <b>reserve (3)</b>                  34:18;91:5,23  <b>reserves (1)</b>                  91:4  <b>residents (1)</b>                  41:19  <b>resiliency (1)</b>                  69:12  <b>resource (4)</b></p>
		<b>Q</b>		
		<p><b>qualification (2)</b>                  61:8;85:13  <b>qualify (5)</b>                  31:3;37:22,24;                  41:23;63:6  <b>qualifying (1)</b>                  61:12  <b>quantification (1)</b>                  37:11  <b>quantify (2)</b>                  37:5;71:7  <b>quantitative (1)</b>                  68:11  <b>quarters (1)</b>                  76:17  <b>quickly (1)</b>                  48:6  <b>Quinlan (2)</b>                  41:8;57:7  <b>quite (2)</b>                  33:9;38:12  <b>quote (2)</b>                  62:10;68:22</p>		
		<b>R</b>		
		<p><b>raise (2)</b>                  47:10;61:21  <b>range (1)</b>                  90:2  <b>ratepayers (1)</b>                  42:17</p>		

<p>30:2,17;42:4,5  <b>resources (8)</b>                  37:16,19;38:13;                  46:23;69:3,4,12,20  <b>respect (13)</b>                  41:17;48:13;52:22;                  54:24;56:18;58:2;                  63:8;68:6;71:10;                  72:3;88:18;90:17;                  91:2  <b>respond (2)</b>                  68:11;79:6  <b>response (6)</b>                  38:8,16;68:2,6,14;                  74:3  <b>response] (2)</b>                  47:23;88:6  <b>rest (3)</b>                  30:8;41:19;42:18  <b>restricted (1)</b>                  90:23  <b>result (2)</b>                  34:10;38:2  <b>resume (1)</b>                  95:9  <b>resumed (1)</b>                  81:7  <b>retire (5)</b>                  38:15;68:2,14;                  74:3;85:15  <b>retired (2)</b>                  38:22;81:22  <b>retirement (5)</b>                  37:15,21;71:1,16;                  85:21  <b>retirements (15)</b>                  70:23;71:3,5,8;                  72:3,10,11,13;73:2,4,                  5,8,9;94:13,21  <b>retires (1)</b>                  80:2  <b>retiring (2)</b>                  29:2;30:2  <b>revenue (9)</b>                  38:23;53:18;65:19,                  24;66:8;67:11,14;                  92:6,12  <b>revenues (4)</b>                  66:14;67:21;92:24;                  93:16  <b>review (2)</b>                  55:8;56:9  <b>reviewed (1)</b>                  58:18  <b>reviewing (2)</b>                  56:1;63:10  <b>reviews (1)</b>                  65:15  <b>revised (2)</b>                  46:19;49:21  <b>RFP (12)</b>                  41:13,15,21;53:9,                  12,16;56:20;57:3,4,9,</p>	<p>12;85:11  <b>Right (72)</b>                  29:3,4;32:17;                  33:20;34:13;35:6,11,                  16,17;36:14;43:23;                  45:2;48:18,20,24;                  49:3,8,22;50:2,15,16;                  51:12,22;52:3,12,20;                  53:20,21;57:15;58:5,                  10;59:8,13;60:4;                  62:1,8,16,22;63:6,24;                  64:5,7,8;65:21,23;                  66:1;67:12;69:15;                  70:14,23;71:8,23;                  73:17,22;74:8,17;                  75:10;78:10,14,15,                  22;79:12;82:1;83:3,                  9,17;85:2;89:20,21;                  91:18;93:13;94:3  <b>risk (19)</b>                  34:11,16;36:23;                  37:2,7;62:14,20,22,                  24;63:16,23;66:14;                  67:3,6,8;71:8,16;                  72:9;92:8  <b>risks (1)</b>                  61:23  <b>road (1)</b>                  29:23  <b>role (1)</b>                  56:19  <b>rule (2)</b>                  36:24;87:8  <b>rules (1)</b>                  51:10  <b>run (13)</b>                  30:17,18,19,20,23;                  31:5,21;32:3,4;                  44:20;81:18;82:21,                  23</p>	<p>44:12  <b>scope (2)</b>                  39:3;76:1  <b>SEC (1)</b>                  77:22  <b>second (7)</b>                  29:11;31:2;52:4;                  70:12;80:20;93:10,                  17  <b>Seeing (1)</b>                  47:24  <b>seems (2)</b>                  72:6;83:3  <b>sell (1)</b>                  41:20  <b>sense (9)</b>                  32:10;37:1;59:22;                  66:12;69:9;80:17;                  86:14;89:16;93:3  <b>sentences (1)</b>                  65:14  <b>separation (1)</b>                  80:24  <b>service (2)</b>                  36:5,10  <b>session (4)</b>                  39:2;51:18;58:23;                  95:8  <b>set (4)</b>                  65:16;73:24;77:18;                  83:20  <b>settlement (5)</b>                  93:9,11,11,16,18  <b>several (2)</b>                  48:9;68:22  <b>shaking (2)</b>                  40:11,14  <b>shift (1)</b>                  79:15  <b>shifted (1)</b>                  80:4  <b>shippers (1)</b>                  34:7  <b>short (2)</b>                  44:17;71:13  <b>shortage (2)</b>                  34:18;67:11  <b>shortages (1)</b>                  91:23  <b>shortly (1)</b>                  43:20  <b>show (1)</b>                  79:17  <b>showed (3)</b>                  70:3;78:5,8  <b>side (4)</b>                  42:8;66:18;86:22;                  87:3  <b>sign (1)</b>                  50:13  <b>significant (3)</b>                  48:17;67:20;68:24  <b>significantly (1)</b></p>	<p>46:20  <b>simply (3)</b>                  39:13;73:3;89:17  <b>sit (1)</b>                  72:1  <b>situation (2)</b>                  29:5;88:1  <b>Sixty-three (1)</b>                  65:3  <b>Slow (1)</b>                  79:4  <b>someone (1)</b>                  62:19  <b>somewhat (1)</b>                  46:6  <b>Sorry (6)</b>                  56:24;64:19;79:7,                  9;81:2;89:7  <b>sort (3)</b>                  37:21;77:9;86:7  <b>sound (1)</b>                  43:23  <b>sounds (10)</b>                  35:16;44:3;48:20,                  23;49:3;50:16;63:7;                  64:6;68:19;70:15  <b>specific (6)</b>                  29:8;32:5;49:2,5;                  63:4,20  <b>specifically (1)</b>                  54:5  <b>speculate (1)</b>                  43:9  <b>speculating (1)</b>                  73:21  <b>spoke (1)</b>                  33:11  <b>stakeholder (1)</b>                  83:19  <b>stakeholders (1)</b>                  84:17  <b>stand (2)</b>                  76:5,24  <b>standard (1)</b>                  57:22  <b>start (5)</b>                  41:6;44:12;48:6;                  85:9,15  <b>starting (3)</b>                  41:10;78:22;79:16  <b>state (2)</b>                  74:17,19  <b>stated (1)</b>                  63:12  <b>statement (1)</b>                  69:8  <b>states (1)</b>                  38:14  <b>status (1)</b>                  83:16  <b>stay (2)</b>                  69:4,13  <b>stays (2)</b></p>	<p>29:19;80:13  <b>stick (1)</b>                  84:21  <b>still (9)</b>                  44:22;56:21;57:5,                  13;89:21;92:11,15,                  16;94:7  <b>stop (1)</b>                  92:11  <b>stop-loss (5)</b>                  91:14,17;92:9,18;                  93:19  <b>stream (4)</b>                  53:18;65:24;66:8;                  67:15  <b>strike (1)</b>                  93:4  <b>structure (2)</b>                  87:5,17  <b>structured (2)</b>                  42:10,11  <b>structures (2)</b>                  85:17;87:22  <b>Studies (2)</b>                  90:5,8  <b>Study (10)</b>                  33:6,15;58:9,14,                  19;59:2;60:20;61:9;                  90:17,22  <b>SUBCOMMITTEE (1)</b>                  77:22  <b>subject (2)</b>                  47:7;65:22  <b>submitted (6)</b>                  49:7,10,24;50:10;                  51:11;55:12  <b>subsequent (1)</b>                  50:8  <b>subsidiaries (1)</b>                  74:11  <b>subsides (2)</b>                  74:15,16  <b>substantial (1)</b>                  38:7  <b>substantially (1)</b>                  72:17  <b>succeeds (1)</b>                  77:1  <b>successful (1)</b>                  77:8  <b>suggested (1)</b>                  70:21  <b>supplement (1)</b>                  52:15  <b>supplemental (9)</b>                  41:7;49:24;50:4,                  20;64:15;68:21;70:4,                  13,14  <b>supply (6)</b>                  62:1,15;63:21;                  65:20;69:2;82:2  <b>supplying (1)</b>                  67:11</p>
	<b>S</b>			
	<p><b>sale (1)</b>                  52:6  <b>sales (1)</b>                  67:20  <b>same (14)</b>                  29:19;36:3;46:20;                  47:10;69:23;72:3,6,                  12,22;73:9;79:11;                  80:13;94:14,22  <b>savings (9)</b>                  48:10;79:11,14,18,                  19;80:22;81:14,24;                  82:9  <b>saw (1)</b>                  60:13  <b>saying (11)</b>                  32:20;48:8;51:7;                  61:6,13,22;63:8;                  67:22;68:4;69:6;73:6  <b>schools (1)</b></p>			

<p><b>support (3)</b> 33:18;68:12;83:3</p> <p><b>supported (2)</b> 53:16,17</p> <p><b>supposed (1)</b> 71:7</p> <p><b>suppresses (1)</b> 94:11</p> <p><b>suppression (2)</b> 81:16;83:8</p> <p><b>sure (5)</b> 32:18;37:24;42:10; 87:23;94:5</p> <p><b>surplus (2)</b> 33:18;44:18</p> <p><b>surprise (3)</b> 56:12,15,17</p> <p><b>sustain (2)</b> 47:17;69:20</p> <p><b>sustained (1)</b> 69:23</p> <p><b>swapping (1)</b> 29:18</p> <p><b>swing (2)</b> 38:5,6</p> <p><b>system (14)</b> 29:20;33:6;39:21; 40:2;42:19;58:9,13, 18;60:3,20;90:5,8,17; 91:5</p>	<p>88:15,18,20;89:15,22</p> <p><b>testified (6)</b> 35:17;36:4,20; 39:14;54:1;57:7</p> <p><b>testimony (49)</b> 30:13;32:19;34:3; 35:18;37:9;41:7; 48:7,8,11,21;49:6,7, 10,14,16,19;50:1,5,7, 10,21;51:4;54:13,15, 20,23,23;55:12;56:6; 57:9,18;58:7,8,13; 60:24;62:5;63:11,21; 64:15,17;67:2;68:18, 21;70:2,4;75:24,24; 88:16;94:10</p> <p><b>Thanks (2)</b> 81:10;88:11</p> <p><b>thinking (1)</b> 69:16</p> <p><b>third (1)</b> 57:17</p> <p><b>thorough (2)</b> 87:14,21</p> <p><b>though (3)</b> 55:2;60:1;89:10</p> <p><b>thought (13)</b> 31:18,18;44:12; 47:9;48:21;64:19; 79:8;82:22,24;85:22; 92:7;93:6;94:6</p> <p><b>thoughts (1)</b> 45:8</p> <p><b>threat (1)</b> 76:22</p> <p><b>three (2)</b> 38:14;76:17</p> <p><b>thumb (1)</b> 36:24</p> <p><b>tie (1)</b> 73:2</p> <p><b>tied (1)</b> 46:6</p> <p><b>times (2)</b> 46:2;91:20</p> <p><b>timing (1)</b> 51:13</p> <p><b>today (3)</b> 58:7;70:2;72:1</p> <p><b>together (1)</b> 56:7</p> <p><b>tolerance (1)</b> 63:1</p> <p><b>tolerate (1)</b> 62:22</p> <p><b>tongues (1)</b> 40:15</p> <p><b>topic (2)</b> 34:2;73:13</p> <p><b>total (2)</b> 29:19;92:12</p> <p><b>trade (1)</b> 85:22</p>	<p><b>train (1)</b> 79:7</p> <p><b>transmission (7)</b> 30:22;32:1,23; 33:2;59:15;90:12,15</p> <p><b>trend (1)</b> 46:16</p> <p><b>trending (1)</b> 46:19</p> <p><b>tries (1)</b> 87:12</p> <p><b>true (2)</b> 60:1;67:9</p> <p><b>trust (2)</b> 57:10;69:7</p> <p><b>try (6)</b> 39:19;55:17;86:2; 87:17,24;92:1</p> <p><b>trying (7)</b> 43:10;56:4,23,23; 78:19;86:7;87:22</p> <p><b>turn (2)</b> 48:22;75:17</p> <p><b>TV (1)</b> 41:1</p> <p><b>two (4)</b> 30:20;63:20;68:23; 84:22</p> <p><b>two-settlement (1)</b> 93:6</p> <p><b>type (1)</b> 86:24</p> <p><b>Typically (2)</b> 55:20;89:6</p>	<p>75:19</p> <p><b>unsupported (1)</b> 71:11</p> <p><b>up (18)</b> 30:13;32:17;39:14; 46:5;51:9;65:6; 70:11;72:5;75:2; 77:15;79:4;80:2; 84:3,5;89:4,5,13,20</p> <p><b>update (1)</b> 69:1</p> <p><b>updated (4)</b> 49:20;51:20;67:24; 73:19</p> <p><b>updates (1)</b> 68:23</p> <p><b>upgrade (1)</b> 59:23</p> <p><b>upgrades (12)</b> 30:22;31:12,13; 32:1;33:9,14;60:3,11, 16,17,19,21</p> <p><b>upward (1)</b> 46:19</p> <p><b>use (4)</b> 45:5;51:4;68:24; 87:17</p> <p><b>used (1)</b> 66:3</p> <p><b>useful (4)</b> 55:3,5,19;56:1</p> <p><b>using (3)</b> 63:22;64:12,22</p>	<p><b>wait (2)</b> 86:10,16</p> <p><b>waiting (1)</b> 86:9</p> <p><b>wants (1)</b> 86:15</p> <p><b>watchdog (1)</b> 87:14</p> <p><b>way (9)</b> 29:8;63:5;71:15, 18;73:14;74:15; 83:18;90:16;94:18</p> <p><b>ways (1)</b> 79:13</p> <p><b>week (1)</b> 83:21</p> <p><b>weren't (2)</b> 37:18;49:11</p> <p><b>what's (7)</b> 38:8;63:4;72:19; 78:19;80:6;83:16; 92:9</p> <p><b>Whereupon (1)</b> 95:7</p> <p><b>WHITLEY (1)</b> 40:12</p> <p><b>whole (7)</b> 44:1;61:10;66:19; 79:15;82:12;87:19; 92:17</p> <p><b>wholesale (1)</b> 48:14</p> <p><b>willing (2)</b> 69:13;89:9</p> <p><b>willingness (1)</b> 69:4</p> <p><b>win (3)</b> 56:20;57:4,11</p> <p><b>wins (1)</b> 53:9</p> <p><b>Witness (2)</b> 65:15;88:9</p> <p><b>word (3)</b> 51:14;54:9;74:16</p> <p><b>words (3)</b> 79:17;87:4;91:10</p> <p><b>work (7)</b> 48:13;50:21;55:10, 16,16,23;87:15</p> <p><b>working (1)</b> 83:18</p> <p><b>works (2)</b> 29:8;78:23</p> <p><b>wrong (1)</b> 78:22</p> <p><b>wrote (2)</b> 49:14;58:13</p>
<b>T</b>				
<p><b>table (2)</b> 78:5,9</p> <p><b>talk (2)</b> 57:18;67:1</p> <p><b>talked (6)</b> 32:15;57:24;58:24; 62:3;67:2,6</p> <p><b>talking (10)</b> 59:20;60:20;67:8; 70:7,18;72:2,12,23, 24;79:9</p> <p><b>tax (1)</b> 38:24</p> <p><b>tech (1)</b> 58:23</p> <p><b>technical (1)</b> 51:17</p> <p><b>technology (1)</b> 59:11</p> <p><b>term (1)</b> 82:6</p> <p><b>termed (1)</b> 92:24</p> <p><b>terminal (1)</b> 59:11</p> <p><b>terms (1)</b> 73:13</p> <p><b>test (13)</b> 30:15;31:9;32:14; 53:13,19,22;54:3,12;</p>				
		<b>U</b>		
		<p><b>ultimate (2)</b> 67:21;76:23</p> <p><b>Ultimately (2)</b> 61:19;89:24</p> <p><b>uncertain (2)</b> 66:5,9</p> <p><b>under (6)</b> 31:8;42:15;54:11; 56:12;59:17;91:13</p> <p><b>underestimated (1)</b> 46:24</p> <p><b>underestimating (1)</b> 46:22</p> <p><b>underlying (1)</b> 80:5</p> <p><b>understood (1)</b> 78:11</p> <p><b>unfairly (1)</b> 65:8</p> <p><b>unlikely (2)</b> 31:19;72:7</p> <p><b>unlimited (1)</b> 92:4</p> <p><b>unrealistic (2)</b> 48:16;68:13</p> <p><b>unsuccessful (1)</b></p>	<b>V</b>	
			<p><b>Valley (1)</b> 59:17</p> <p><b>value (2)</b> 45:19;66:23</p> <p><b>variety (2)</b> 50:24;55:13</p> <p><b>various (1)</b> 60:9</p> <p><b>verbal (2)</b> 47:23;88:6</p> <p><b>verify (1)</b> 48:23</p> <p><b>Vermont (3)</b> 32:9;38:19;39:24</p> <p><b>version (1)</b> 49:16</p> <p><b>viability (1)</b> 67:21</p> <p><b>view (2)</b> 37:21;71:11</p> <p><b>vote (4)</b> 83:22;84:3,5,8</p> <p><b>voting (1)</b> 83:20</p>	
			<b>W</b>	
				<b>Y</b>
				<p><b>year (15)</b> 30:7,7,8;45:4,14, 19;46:3,20;79:14,18,</p>



SEC DOCKET NO. 2015-06 NORTHERN PASS TRANSMISSION, AFTERNOON SESSION - PUBLIC/REDACTED  
 ADJUDICATORY HEARING  
 November 17, 2017

19;81:14;82:6;86:9; 92:7 <b>years (8)</b> 29:24;30:6;35:8; 44:22;46:16,18; 80:14;81:17 <b>Yup (1)</b> 66:7	<b>2013 (5)</b> 35:19;58:9;59:2; 90:7,18 <b>2014 (1)</b> 35:19 <b>2016 (8)</b> 43:19;49:8;58:13, 18;59:2;90:7,18,22 <b>2017 (5)</b> 49:20,21;50:1,15; 95:10 <b>2018 (2)</b> 35:4,7 <b>2019 (2)</b> 35:2;85:8 <b>2021 (1)</b> 62:6 <b>24th (1)</b> 50:15	57:19;61:21 <b>8</b> <b>8th (2)</b> 83:24;84:4 <b>9</b> <b>9:00 (1)</b> 95:11 <b>9th (1)</b> 84:10		
<b>Z</b>				
<b>zero (2)</b> 63:15,17 <b>zonal (1)</b> 80:23 <b>zone (1)</b> 94:12				
<b>1</b>				
<b>1 (2)</b> 30:7;51:3 <b>1,000 (12)</b> 29:1,2,12,13;31:3, 19;32:3;35:13;38:4, 15;62:15;64:23 <b>10 (8)</b> 30:1;51:3;52:4; 57:19;61:21,21; 67:17;79:18 <b>102 (1)</b> 65:11 <b>1090 (2)</b> 59:8;90:11 <b>11 (6)</b> 43:19;64:11,22; 69:1,2;79:19 <b>12 (3)</b> 46:2;67:18;79:19 <b>1200 (2)</b> 59:8;90:10 <b>12-month (1)</b> 65:1 <b>12-month-capacity (1)</b> 64:13 <b>13 (7)</b> 41:10;43:17;44:5; 67:18;85:7,13,24 <b>15 (2)</b> 43:16;44:22 <b>17th (1)</b> 52:15 <b>18 (1)</b> 70:15 <b>19 (1)</b> 85:12	<b>3</b> <b>3 (3)</b> 30:8;70:3,15 <b>3:52 (1)</b> 81:6 <b>30th (1)</b> 49:8 <b>3-1/2 (1)</b> 35:8 <b>330 (2)</b> 30:7,7 <b>34 (1)</b> 46:1 <b>34,000 (1)</b> 45:23 <b>35 (2)</b> 64:10;65:11			
	<b>4</b>			
	<b>4 (3)</b> 30:1;51:3;52:5 <b>4:03 (1)</b> 81:7 <b>4:18 (1)</b> 95:8			
	<b>5</b>			
	<b>5 (3)</b> 30:1;52:5;57:19			
	<b>6</b>			
	<b>61 (1)</b> 95:7 <b>62 (1)</b> 95:9			
<b>2</b>				
<b>2 (1)</b> 30:7 <b>20 (1)</b> 95:10	<b>7</b> <b>7 (2)</b>			