1 STATE OF NEW HAMPSHIRE 2 SITE EVALUATION COMMITTEE 3 **June 13, 2017** - 9:01 a.m. DAY 15 Morning Session ONLY 49 Donovan Street 4 Concord, New Hampshire {**REDACTED** – for public use} 5 {Electronically filed with SEC on 06-19-17} 6 7 IN RE: SEC DOCKET NO. 2015-06 Joint Application of Northern 8 Pass Transmission, LLC, and 9 Public Service Company of New Hampshire d/b/a Eversource 10 Energy for a Certificate of Site and Facility. 11 (Hearing on the merits) 12 PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE: 13 Chrmn. Martin P. Honigberg Public Utilities Comm. (Presiding as Presiding Officer) 14 Cmsr. Kathryn M. Bailey Public Utilities Comm. Dir. Craig Wright, Designee Dept. of Environ. Serv. 15 Christopher Way, Designee Dept. of Resources & 16 Economic Development William Oldenburg, Designee Dept. of Transportation Patricia Weathersby 17 Public Member Rachel Whitaker Alternate Public Member 18 19 ALSO PRESENT FOR THE SEC: Michael J. Iacopino, Esq., Counsel for SEC 20 (Brennan, Caron, Lenehan & Iacopino) 21 Pamela G. Monroe, SEC Administrator 22 23 (No Appearances Taken) 24 COURT REPORTER: Steven E. Patnaude, LCR No. 052

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	{SEC 2015-06}[Day 15/Morning ONLY-REDACTED]	$\{06 - 13 - 17\}$

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2		EXHIBITS	
3	EXHIBIT NO.	DESCRIPTION PA	GENO.
4	DFLD-ABTR 95	From ISO-New England 2015 CELT Report titled "Final	6
5		2015 PV Forecast Cumulative Nameplate (MW)	
6	DFLD-ABTR 94		7
7 8		2017 CELT Report titled "Draft 2017 PV Forecast Namendate Capacity MW	
		Nameplate Capacity, MW	1.0
9	DFLD-ABTR 98 (Noted as	Chart depicting the ISO NE 2016 CELT PV Forecast (MW) and	12
10	DFLD-ABTR 33)	the SEIA (Solar Energy Industry Association) Projected 5-year	
11		Growth (MW)	
12	DFLD-ABTR 93	Press Release "Distributed energy may make traditional	21
13 14		regulation obsolete within a matter of years," according to LEI's Goulding" (06-08-17)	
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16		"Greenhouse Gas Emissions from Reservoir Water Surfaces: A	
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	[WITNESS: Frayer]
1	PROCEEDING
2	CHAIRMAN HONIGBERG: All right. Good
3	morning, everyone. We're beginning Day 15 of
4	the hearings on Northern Pass's Application.
5	We're going to continue the questioning of the
6	Julia Frayer. And Mr. Cote, for the Deerfield
7	Abutters, you may resume your questioning.
8	(Continuation of the
9	cross-examination of Julia
10	Frayer.)
11	MR. COTE: Good morning, Ms. Frayer.
12	WITNESS FRAYER: Good morning.
13	CROSS-EXAMINATION (resumed)
13 14	CROSS-EXAMINATION (resumed) BY MR. COTE:
14	BY MR. COTE:
14 15	BY MR. COTE: Q. I'd like to pick up a little bit from a subject
14 15 16	<pre>BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and</pre>
14 15 16 17	<pre>BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the</pre>
14 15 16 17 18	BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the way that your price projections have changed.
14 15 16 17 18 19	BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the way that your price projections have changed. And I just wanted to get a little bit of
14 15 16 17 18 19 20	BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the way that your price projections have changed. And I just wanted to get a little bit of history. Your most recent report I believe
14 15 16 17 18 19 20 21	BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the way that your price projections have changed. And I just wanted to get a little bit of history. Your most recent report I believe was was it February of 2017?
14 15 16 17 18 19 20 21 22	BY MR. COTE: Q. I'd like to pick up a little bit from a subject that Mr. Anderson was discussing last week, and that is Forward Capacity Auction #11, and the way that your price projections have changed. And I just wanted to get a little bit of history. Your most recent report I believe was was it February of 2017? A. The updated analysis is from February 2017. We

1 included your	projection for FCA 11?
2 A. The February	report included updated
3 electricity r	market benefits. So, it would have
4 included pro	jections for FCA 11 through 21.
5 Q. And when did	you actually prepare that report?
6 A. We started wo	ork in December 2016 for that
7 report.	
8 Q. Okay.	
9 A. We did the mo	odeling in December of 2016.
10 Q. And FCA 11 ac	ctually took place, I think, in
11 February of 2	2017, is that correct?
12 A. Yes. That's	correct.
13 Q. So, it would	have been the same month that your
14 report was re	eleased, correct?
15 A. That is corre	ect.
16 Q. All right. A	And I think it's okay to say that
17 there was a c	dollar difference, approximately a
18 dollar differ	rence in your report that came out
19 in February a	and the actual clearing price?
20 A. Yes. That's	correct.
21 Q. And I believe	e you gave an explanation. Was it
22 something to	do with there being additional
23 capacity in t	the market that wasn't anticipated
24 in your analy	ysis?

 A. That's correct. There was a difference on a net basis of about 200 less than 240-megawatts that was the driver of that difference in price. Q. Okay. So, that's more or less the thread I'd like to follow. Let's see. Looks like I've lost Apple TV. Okay. We've got it back here. When you did your original analysis in 2015, would you have this is Deerfield Exhibit Deerfield Abutter 95, and it's the ISO-New England 2015 CELT Is that how you say it, "kelt" or "celt"? A. "CELT". Q CELT Report. And, so, would you have used this data excuse me in your in your original analysis? A. I'm just waiting for the Apple TV to come up on my end. Q. Is it there? A. Not yet. BY THE WITNESS: A. Yes. A. Yes. M. M. COTE: 			[WIINESS: Flayer]
 240-megawatts that was the driver of that difference in price. Q. Okay. So, that's more or less the thread I'd like to follow. Let's see. Looks like I've lost Apple TV. Okay. We've got it back here. When you did your original analysis in 2015, would you have this is Deerfield Exhibit Deerfield Abutter 95, and it's the ISO-New England 2015 CELT Is that how you say it, "kelt" or "celt"? A. "CELT". Q CELT Report. And, so, would you have used this data excuse me in your in your original analysis? A. I'm just waiting for the Apple TV to come up on my end. Q. Is it there? A. Not yet. BY THE WITNESS: A. Yes. 	1	Α.	That's correct. There was a difference on a
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 8 When you did your original analysis in 9 2015, would you have this is Deerfield 10 Exhibit Deerfield Abutter 95, and it's the 11 ISO-New England 2015 CELT Is that how you 12 say it, "kelt" or "celt"? 13 A. "CELT". 14 Q CELT Report. And, so, would you have used 15 this data excuse me in your in your 16 original analysis? 17 A. I'm just waiting for the Apple TV to come up on 18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	6		like to follow. Let's see. Looks like I've
 9 2015, would you have this is Deerfield Exhibit Deerfield Abutter 95, and it's the ISO-New England 2015 CELT Is that how you say it, "kelt" or "celt"? 13 A. "CELT". 14 Q CELT Report. And, so, would you have used this data excuse me in your in your original analysis? 17 A. I'm just waiting for the Apple TV to come up on my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	7		lost Apple TV. Okay. We've got it back here.
 10 Exhibit Deerfield Abutter 95, and it's the 11 ISO-New England 2015 CELT Is that how you 12 say it, "kelt" or "celt"? 13 A. "CELT". 14 Q CELT Report. And, so, would you have used 15 this data excuse me in your in your 16 original analysis? 17 A. I'm just waiting for the Apple TV to come up on 18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	8		When you did your original analysis in
 11 ISO-New England 2015 CELT Is that how you say it, "kelt" or "celt"? 13 A. "CELT". 14 Q CELT Report. And, so, would you have used this data excuse me in your in your original analysis? 17 A. I'm just waiting for the Apple TV to come up on my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	9		2015, would you have this is Deerfield
<pre>12 say it, "kelt" or "celt"? 13 A. "CELT". 14 Q CELT Report. And, so, would you have used 15 this data excuse me in your in your 16 original analysis? 17 A. I'm just waiting for the Apple TV to come up on 18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.</pre>	10		Exhibit Deerfield Abutter 95, and it's the
 A. "CELT". Q CELT Report. And, so, would you have used this data excuse me in your in your original analysis? A. I'm just waiting for the Apple TV to come up on my end. Q. Is it there? A. Not yet. (Short pause.) BY THE WITNESS: A. Yes. 	11		ISO-New England 2015 CELT Is that how you
<pre>14 Q CELT Report. And, so, would you have used 15 this data excuse me in your in your 16 original analysis? 17 A. I'm just waiting for the Apple TV to come up on 18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.</pre>	12		say it, "kelt" or "celt"?
15 this data excuse me in your in your original analysis? 17 A. I'm just waiting for the Apple TV to come up on my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.	13	Α.	"CELT".
<pre>16 original analysis? 17 A. I'm just waiting for the Apple TV to come up on 18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.</pre>	14	Q.	CELT Report. And, so, would you have used
 17 A. I'm just waiting for the Apple TV to come up on my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	15		this data excuse me in your in your
18 my end. 19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.	16		original analysis?
19 Q. Is it there? 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.	17	Α.	I'm just waiting for the Apple TV to come up on
 20 A. Not yet. 21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes. 	18		my end.
<pre>21 (Short pause.) 22 BY THE WITNESS: 23 A. Yes.</pre>	19	Q.	Is it there?
 22 BY THE WITNESS: 23 A. Yes. 	20	Α.	Not yet.
23 A. Yes.	21		(Short pause.)
	22	BY TH	IE WITNESS:
24 BY MR. COTE:	23	Α.	Yes.
	24	BY MR	R. COTE:

		[WIINESS: FIAYEI]
1	Q.	Okay. So, in this report excuse me in
2		particular I'm looking at the year 2022,
3		because I think, on your current analysis,
4		that's the first year where the Forward
5		Capacity Market benefit kicks in. But so,
6		I'm looking in particular at their forecast for
7		installed megawatts of photovoltaics, and
8		it's you see it's "2,305 megawatts"?
9	Α.	That's the installed capacity. That's correct.
10	Q.	Okay. So, now I'm going to
11	Α.	Note, though, that the majority of this doesn't
12		affect the capacity market. Although there is
13		an installed capacity rating, I believe ISO-New
14		England doesn't forecast a majority of this
15		resource participating in the Forward Capacity
16		Market.
17	Q.	So, now I have the 2016 forecast.
18	Α.	I see it.
19	Q.	And you see, for the year 2022, their forecast
20		is for "2,900 megawatts". So, in one year, it
21		went from 2,300 to 2,900?
22	Α.	I see that.
23	Q.	And then now I have Deerfield Abutter
24		Exhibit 94. It's also ISO-New England CELT
		2015 061 [Downling ONLY DEDICTED] (06 12 17)

		[WITNESS: Frayer]
1		Report, the Draft Report. And, now, for the
2		year 2022, it's up to "3,720 megawatts"?
3	Α.	Of nameplate capacity, yes.
4	Q.	Correct. And that was an increase from 2,900
5		the year before. So, this is ISO-New England
6		forecasting?
7	Α.	Yes. This is their projection of the solar PV
8		for the region.
9	Q.	So, what I'm interested in here is your opinion
10		on the forecasting in energy markets, in a
11		three-year period, in this particular resource,
12		their own estimates have gone from 2,300 to
13		2,900 to 3,700 for the same year, 2022. Do you
14		have an opinion on the forecasting or the
15		reliability of forecasting energy markets?
16	Α.	I'm sorry. Just to make sure I understand your
17		question, Mr. Cote, you're asking me about the
18		reliability of ISO-New England's forecast of
19		solar PV capacity, nameplate capacity? Is that
20		what you're asking about?
21	Q.	Yes, but more general. Just about the
22		difficulty of forecasting in energy markets.
23	Α.	Let me maybe address the specific ISO-New
24		England forecast first, and then the second
		201E 0()[Data 1E/Manning ONLY DEDUCTED](0(12 17))

part, the more generic question about the difficulty of forecasting second.

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3 Solar PV forecasting is something that's 4 been done in the recent years. It hasn't been 5 down over the entire history of ISO-New England 6 and your load forecasting process, but they 7 added it in some time ago, because they felt that they needed to understand, I would say, 8 9 primarily more on the energy side of the 10 equation for solar PV, because they wanted to 11 make sure they were accurate in their forecast 12 of total electricity consumption in the region.

13 And, as the costs of the technology has 14 come down, and as various state programs have 15 ramped up, the megawatts of solar PV deployment 16 across the region has increased. And that's 17 what's really being reflected in the year over 18 year forecast from ISO-New England. The 19 combination of the actual costs of the 20 technology, its competitiveness of the market, 21 and the take-up or interest from consumers. 22 This forecast includes what they label 23 "behind-the-meter PV resources". Those are the 24 solar panels that you and I may install on our

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	[WITNESS: Frayer]
1	homes and through the various programs and
2	initiatives that solar providers and
3	competitive retailers are marketing throughout
4	the region.
5	This element of the ISO-New England
6	forecast is important, especially when you're
7	doing energy market market analysis,
8	because, in the energy market, the solar
9	generation has a particular production profile
10	and a particular effect on electric
11	consumption. And every year the ISO issues a
12	new forecast, the behind-the-meter PV
13	resources, it's embedded in the energy side of
14	their forecast and we use that in our modeling.
15	Solar has not been a significant
16	contributor to the capacity markets to date in
17	the region. And I don't think many of these
18	megawatts of installed capacity are projected
19	by ISO-New England to be involved in the
20	capacity market for a variety of reasons.
21	So, I don't find this, the updates that
22	ISO-New England has done, are on this
23	particular aspect of solar PV, to be a
24	significant uncertainty to our capacity market

		[WIINESS. IIayer]
1		benefit analysis. They are something we do
2		take into account on the energy side. And,
3		yes, there has been a step-up in expectations
4		in recent years. But I think that is not
5		something that highlights a difficulty of
6		forecasting, it's something us forecasters have
7		to acknowledge and recognizes a driver of the
8		changing nature of the technology and consumer
9		preferences. So, it's something that ISO-New
10		England acknowledges in updating its forecast,
11		and it's something that we also acknowledge in
12		our forecast.
13	Q.	Okay. I'm going to stay on this thread for a
14		bit more. And what I have up here is
15		Mr. Quinlan's testimony from earlier in these
16		hearings. And he's discussing the energy
17		market. Let me know if this has come up on
18		your monitor?
19	Α.	I see the highlighted area on the top of
20		Page 155.
21	Q.	And Mr. Quinlan is talking about forecasting,
22		and he says he's talking about the energy
23		market, and says "I would say it's highly
24		volatile. So, any time you run one of these
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

{SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WITNESS: Frayer]
1		analyses, you're likely to get a different
2		outcome." Do you agree with that?
3	Α.	Well, I'm not sure I wasn't here when Mr.
4		Quinlan testified. He's responding to some
5		other to a specific question. Can I see the
6		page before, Page 154, so I can get a more
7		complete understanding of what the context is
8		for this statement?
9	Q.	I apologize, I don't have that here. But
10		perhaps reading the next couple of sentences
11		might give you more context?
12	Α.	Well, I wanted to know what was
13	Q.	And he is actually speaking about your economic
14		analysis.
15		CHAIRMAN HONIGBERG: Mr. Cote, if you
16		can't come up with the previous page, you're
17		going to have to move on to something else.
18		MR. COTE: Okay.
19	BY M	R. COTE:
20	Q.	All right. So, I would like to go back to
21		photovoltaic forecasting. So, this is
22		Deerfield Abutter Exhibit 33 [DFLD-ABTR98?].
23		And these are forecasts from the Solar Energy
24		Industry Association. And, so, I'm looking at
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

		[WIINESS: Frayer]
1		the 5-year forecast going out to the year 2022,
2		which I had highlighted in the ISO-New England
3		CELT Reports that were up earlier. Do you see
4		they're projecting that New Hampshire, over the
5		next five years, will have "242 megawatts" of
6		power, photovoltaic installed solar capacity?
7	Α.	I see that bullet on the page.
8	Q.	Okay. And, then, Connecticut, they're
9		projecting, over five years, "1,114 megawatts"?
10	Α.	Yes. I see that bullet. It's the same
11		organization, right?
12	Q.	Yes.
13	Α.	Okay.
14	Q.	So, the same organization for Vermont,
15		"274 megawatts"; and the same organization for
16		Massachusetts, "2,326 megawatts". Bear with me
17		for a second. So, if you add those all up, and
18		I couldn't find information for Maine and Rhode
19		Island, the first column is the ISO, the 2016
20		CELT forecast. And you can see that, out in
21		the year 2022, they had projected 29
22		approximately 2,900 megawatts of installed PV.
23		And, if you use the Solar Energy forecasts,
24		their number is almost 6,000 megawatts in 2022.
	\ < F C	$2015 - 061$ [Day 15/Morping ONLY-REDACTED] $\{06 - 13 - 17\}$

		[WITNESS: Frayer]
1		So, it's considerably it's a considerably
2		higher forecast than ISO-New England. So, do
3		you think, going back to the earlier thread, we
4		were talking about a difference of 200 and I
5		think, did you say 45 (245) megawatts of power,
6		unanticipated power led to the difference in
7		the FCA 11 forecast? And, here, we have
8		potentially 3,000 megawatts. And I'm wondering
9		what your opinion is on how that would affect
10		the Forward Capacity Market looking forward
11		five years?
12	Α.	So, I believe the 200 less than
13		240 megawatts that you were referring to is in
14		reference to qualified capacity supply in the
15		Forward Capacity Market. As I mentioned
16		earlier, the majority of the solar PV in the
17		region is not participating, does not qualify
18		for the Forward Capacity Market. So, although
19		the units are the same, megawatts to megawatts,
20		we're talking apples and oranges here. The
21		apples are the capacity market benefit and the
22		difference of 240 megawatts. Yes, that was the
23		difference that caused, was the consequence of
24		the forecast price difference of a dollar.

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But these megawatts that I'm looking at, these are installed capacity megawatts. They're not effective megawatts. And by no means they're not capacity-qualified megawatts that would change anything in the capacity market forecast that I've prepared. So, that's what I would first and foremost note.

8 The other comment here is I feel very 9 comfortable using the ISO-New England forecasts 10 and projections, where relevant. For example, 11 as I said, solar PV is important for the energy 12 side of the market.

13 I am not as comfortable, without doing a 14 lot more research and digging, about using the 15 Association numbers. The associations, by 16 their virtue, are advocating for their members. 17 They're advocating for new solar PV. So, I 18 have found in the past that in many instances 19 they tend to be more optimistic in their 20 forecasts of how much their members will be 21 installing and investing in various regions. 22 Okay. So, now I'm looking at -- waiting for Q. 23 Apple TV to kick back in here. This is the 24 supplemental testimony of Mr. Bowes. And do

		[WIINESS: Frayer]
1		you see where he says that "the expected energy
2		price is approximately \$40 per megawatt-hour"?
3		I keep losing this. What I'm seeing on my
4		device is not the same as what I'm seeing on
5		the monitor. Let me try one more time.
6		Okay. I have it. But this is Mr. Bowes'
7		supplemental testimony. And, if you don't see
8		it, I'll just read it. It says "The expected
9		energy price in New England in 2019, the year
10		of operation of the Project, is approximately
11		\$40 per megawatt-hour." And that would be
12		about 4 cents a kilowatt-hour, correct?
13	Α.	Yes. That's correct.
14	Q.	And that's I take it, that's just the energy
15		portion, it wouldn't represent the forward
16		capacity part of their revenue?
17	Α.	That's correct.
18	Q.	And this is the supplemental testimony of
19		Mr. Quinlan. Sorry. Got lost again. So, I'll
20		just read what he says.
21		It says that Northern Pass will
22		"successfully secure contractual commitments
23		for delivery of low cost, clean hydropower."
24		So, when Mr. Quinlan says "low cost", is he
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		implying that they will sell at sell into
2		the market at less than the \$40 per
3		megawatt-hour, for example, that Mr. Bowes
4		cited? Is that how they will bring savings to
5		the New England customers?
6	Α.	I can't speak for Mr. Quinlan. So, I'm not
7		sure I would be able to capture the exact ideas
8		he had in mind in his description. I suspect
9		that's a question for him.
10	Q.	So, will you is it your anticipation that
11		Hydro-Quebec will sell into the New England
12		market at lower than the prevailing energy
13		rates?
14	Α.	It is our anticipation in our modeling that
15		Hydro-Quebec will sell the maximum amount of
16		energy that it has available at prevailing
17		rates. So, in other words, it will be a
18		competitive supplier, a price-taker, where it
19		has a specific amount of energy, with respect
20		to energy, because I think this question is all
21		predicated just on energy sales, and it will
22		sell those it will submit those energy
23		volumes into the day-ahead energy market and
24		schedule those for sale. And it will take the
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

	-	[WIINESS: Frayer]
1		market clearing price, the locational marginal
2		price, which, if there is no congestion, is
3		essentially set by the most expensive unit
4		otherwise necessary to meet load in that hour.
5	Q.	So, would you say it's accurate to say "low
6		cost" "low cost power", or is it more like
7		prevailing costs that they are selling into the
8		market?
9	Α.	Well, I think that, again, I can't speak for
10		Mr. Quinlan. So, you should ask him what this
11		particular aspect of his twenty of his
12		prefilled testimony on word choice. But I
13		think that, again, from our modeling, it's
14		going to occur as I've just described.
15	Q.	If they sell directly into the Mass. Clean
16		Energy RFP, could you describe how the pricing
17		would work on that? Would that be an agreement
18		that's completely independent of the ISO-New
19		England market and they, for example, if
20		Massachusetts really wanted hydropower, for
21		example, could they pay a premium to select
22		Hydro-Quebec and have that transaction or that
23		agreement completely outside of the ISO-New
24		England model?

	-	
1	Α.	So, I'm not familiar with all the details of
2		the Massachusetts RFP. So, I would take my
3		answer with a grain of salt. But I believe the
4		way I had envisioned and understood by
5		reviewing some of the draft RFP documents is
6		that it's a commercial arrangement. There are
7		many bilateral commercial arrangements in this
8		market. There will be a determination of the
9		buyers in Massachusetts about the price they
10		are willing to pay for the product they're
11		seeking. And I believe we spent a lot of time
12		Friday just talking about the product they're
13		seeking. It's a specific definition on "clean
14		energy". And I believe there will be then an
15		obligation to show compliance with that
16		commercial arrangement, where the contracted
17		entity will have to then participate in the
18		ISO-New England markets and to sell energy into
19		the ISO-New England markets. And, in that
20		sense, they will need to schedule those volumes
21		just like I've described. They will have
22		specific volumes that they want to sell into
23		New England's wholesale energy markets, and
24		they will go through the process of scheduling

		[WITNESS: Frayer]
1		those, at whatever is the prevailing price, if
2		you will, in that wholesale electricity market.
3	Q.	Okay. Thank you. Do you think there is a
4		possibility that the Northern Pass Transmission
5		line could become a stranded asset at some
6		point in the future?
7	Α.	I don't believe that my definition of "stranded
8		asset" would apply to Northern Pass. So, the
9		question is what's the definition of "stranded
10		asset"? I think of it as, if I looked through
11		the lens of a ratepayer, it's an asset that I
12		have, as a ratepayer, financed that I'm not
13		using.
14		I think, if we take that lens and
15		translate it onto the commercial arrangements
16		in place or currently in place and awaiting
17		construction of the Project, the TSA,
18		Hydro-Quebec, who is the counterparty that will
19		take transmission service on Northern Pass and
20		use it, will have all the incentives and all
21		the powers to make sure that the asset is
22		useful and commercially viable for it. It will
23		have an obligation to pay the tariff, and
24		therefore will have a very big incentive to

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1		ensure that it does sell energy and capacity
2		into New England and earn revenues to defray
3		the costs that it's committed to.
4	Q.	And I would like to introduce Deerfield Abutter
5		Exhibit 93. This is a press release from last
6		week. Is AJ Goulding, is this the same is
7		this your enterprise?
8	Α.	That's my partner. He's the President of
9		London Economics International, LLC. AJ
10		Goulding.
11	Q.	Okay. You see his statement that's
12		highlighted, it says "DERs", which is
13		"distributed energy resources", which is
14		would it be safe to assume that that refers to,
15		for example, photovoltaic resources?
16	Α.	Solar PV could be in that category, yes.
17	Q.	And, in this press release, he states that
18		"DERs could mimic cellphone usage in terms of
19		customer acceptance and that significant new
20		investment in wires has an increasing risk of
21		being stranded as customers become more
22		comfortable with DERs."
23	Α.	I see that statement. I don't think it applies
24		to the type of project we're talking about
	(C E C	2015 - 061 [Day 15/Morning ONLY-PEDACTED]/06-13-17]

[WITNESS: Frayer] 1 here. Nor is it -- its a concept that he was 2 talking about, not a fact pattern that's 3 specific to the circumstances in consideration 4 right now in this case in New England. 5 Q. Well, do you think that this statement, in your 6 opinion, does it support the earlier analysis 7 that I was going through that photovoltaic growth could significantly exceed the ISO-New 8 9 England forecast and have some effect on the 10 Forward Capacity Market? 11 As I explained earlier, solar photovoltaic Α. No. 12 growth is more important of a consideration for 13 energy consumption, and we have already taken 14 it into account on the energy side of our 15 model. Solar PV in New England is not 16 actively, and in all its volumes, participating 17 in the capacity market. And, frankly, if it 18 were, 100 megawatts of installed capacity is 19 probably only equivalent to 20 to 25 megawatts 20 of qualified capacity supply based on ISO-New England standards. Because the solar PV, its 21 22 entire nameplate capacity is not what would be 23 considered to be relevant for resource adequacy 24 under the New England market rules.

{SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

	-	[WIINESS: Frayer]
1	Q.	Hold on a second while I look for something.
2		All right. I'm not going to find the
3		attachment that I was looking for. So, I'll
4		move on. Did, at any time in your economic
5		analysis, did you do a evaluation for the
6		economic benefit of additional burial of the
7		transmission line?
8	Α.	No, I did not.
9	Q.	How was your scope of work, I mean, as far as
10		what cases that you would look at for your
11		economic benefits, how was the scope
12		determined? For example, why was it decided
13		not to do a similar analysis for the burial
14		case?
15	Α.	I am not familiar with whether or not the
16		burial case was known at the time I did my
17		original analysis in 20 sorry, 2015,
18		October 2015 is the date of my original report.
19		I wasn't looking and dictating to the client
20		that I wanted different scenarios. I asked the
21		client "what is the current planned
22		construction profile of the project and what
23		are the spending budgets?" So, I didn't
24		anticipate that there were so many different

WITNESS: Frayer] 1 alternatives that needed to be examined. But I'm not even sure if those alternatives that 2 3 you're referring to in your question were known at that time either. 4 5 Q. So, who was actually the client? Was it 6 Eversource or --7 I believe our contract is with Eversource, Α. Northeast Utilities Services Company, which I 8 9 believe is now a division of Eversource. 10 And, so, did they determine the scope? Q. 11 Well, they gave me the inputs to my analysis, Α. 12 when I asked the question that I just described 13 to you, with respect to the spending during 14 planning and construction and installation of 15 the Project. But I prepared the scope of work, 16 in terms of saying "I'm going to do this type 17 of analysis using this type of methodologies 18 and approaches and software", but then I said 19 "I need the data. This is the data that I 20 need." And they provided me with the data. 21 Okay. And the only -- and the only scope that Q. 22 was discussed or looked at was just this case 23 of the Project as proposed right now? 24 In terms of the only Project characterization, Α.

[WITNESS: Frayer] 1 because I think of "scope" more as like 2 methodology and what you're studying. But, in 3 terms of Project characteristics that we modeled, yes. 4 5 MR. COTE: Okay. Thank you. That 6 concludes my questions. 7 CHAIRMAN HONIGBERG: Mr. Baker. MR. BAKER: Thank you, Mr. Chair. 8 9 Good morning, Ms. Frayer. 10 WITNESS FRAYER: Good morning. 11 MR. BAKER: I represent four groups 12 of individuals in New Hampshire. They are, to 13 my understanding, all are ratepayers, and they 14 are also landowners who are either abutting or 15 under the proposed Project. And I bring these 16 questions to you from their perspective. 17 BY MR. BAKER: 18 Q. Do you consider them to be stakeholders? 19 Α. Yes. 20 Q. Who is your client? I'm a little confused by 21 the last exchange with Deerfield. When you 22 were retained for this Project, what year was 23 it? 24 I will have to go back and look at the Α. Hmm. {SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WITNESS: Frayer]
1		contract and engagement. It might have been in
2		either 2014 or 2015.
3	Q.	And who what was the name of the client that
4		retained you?
5	Α.	I believe, again, the letterhead is it
6		was probably predates the change of the
7		corporate name, so it was Northeast Utilities
8		Services Company.
9	Q.	Which is now Eversource, the parent?
10	Α.	Part of the parent, yes.
11	Q.	Okay. And Northern Pass, at least it's my
12		understanding, I want to make sure that it's
13		your understanding, is a wholly owned
14		subsidiary of Eversource?
15	Α.	That's my understanding.
16	Q.	Okay. So, if we refer to "Eversource", the
17		parent who retained you, and its subsidiaries
18		and affiliates, as "Eversource", is that okay?
19	Α.	Fine by me. Thank you.
20	Q.	Okay. What is your hourly rate for this
21		engagement?
22	Α.	I would have to take a look at the invoices. I
23		don't know. I believe Eversource has a nice
24		discount to our more typical hourly rate.

		[WITNESS: Frayer]
1	Q.	And what is your typical hourly rate?
2	Α.	I will give you our current typical hourly
3		rate, fully loaded, I believe, for my services,
4		I should know this, but I think it's around
5		\$600 an hour.
6	Q.	Okay. And is it your testimony that you are
7		charging Eversource somewhat less than that
8		because of its policies?
9	Α.	Because of our arrangement with them, our
10		retainer.
11	Q.	You have agreed to work for less than your
12		normal hourly rate on this engagement, is that
13		correct?
14	Α.	I have, yes, that there's a discount built into
15		our arrangement.
16	Q.	Okay. Is any portion of that hourly rate
17		contingent on future events?
18	Α.	I'm not sure I understand your question.
19	Q.	Is there an additur or bonus that you will
20		receive if the Project is granted approval and
21		is built?
22	Α.	Unfortunately, no.
23	Q.	Okay.
24	Α.	We're not success-fee based, as may be other

		[WITNESS: Frayer]
1		consultants.
2	Q.	So, your compensation will be strictly based on
3		the time you spend then, is that correct?
4	Α.	That's correct.
5	Q.	Okay. How much have you and your firm charged
6		Eversource for this engagement, the aggregate?
7	Α.	I don't know off the top of my head.
8	Q.	Give me your best estimate.
9	Α.	I wouldn't even want to wager, because this
10		Project, with respect to the SEC Application,
11		has taken now a number of years. I wouldn't be
12		able to give you an accurate number.
13	Q.	Let's do the baseball analogy. Can you get me
14		into the ballpark?
15		MR. NEEDLEMAN: I'm going to object.
16		She's already stated she can't, and I'm also
17		going to object on relevance.
18		CHAIRMAN HONIGBERG: Well, it may or
19		may not be something he can ultimately use, but
20		it's a fair question to ask the witness.
21		Is it \$2 million?
22		WITNESS FRAYER: You know what, I
23		don't know.
24		CHAIRMAN HONIGBERG: Is it \$5
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

1		
1	million?	
2		WITNESS FRAYER: I don't think so.
3		CHAIRMAN HONIGBERG: You think it's
4	less than	\$5 million?
5		WITNESS FRAYER: Oh, yes.
6		CHAIRMAN HONIGBERG: Do you think
7	it's less	than \$4 million?
8		WITNESS FRAYER: I think so.
9		CHAIRMAN HONIGBERG: Do you think
10	it's less	than \$3 million?
11		WITNESS FRAYER: I think so.
12		CHAIRMAN HONIGBERG: Do you think
13	it's less	than \$2 million?
14		WITNESS FRAYER: I think it's I
15	think so,	but, again,
16		CHAIRMAN HONIGBERG: Is it less than
17	a million	dollars?
18		WITNESS FRAYER: I think so.
19		CHAIRMAN HONIGBERG: Is it less than
20	\$500,000?	
21		WITNESS FRAYER: No.
22		CHAIRMAN HONIGBERG: Okay. So, it's
23	somewhere	between 500,000 and a million?
24		WITNESS FRAYER: Maybe. And I may be
	{SEC 2015-06}[I	Day 15/Morning ONLY-REDACTED]{06-13-17}

WITNESS: Frayer] 1 off by some magnitude there. CHAIRMAN HONIGBERG: But that's the 2 3 order of magnitude. Somewhere in the high six 4 figures, maybe it's broken seven figures? 5 WITNESS FRAYER: Thank you, Chairman. 6 Yes. 7 BY MR. BAKER: I'd like to talk about other engagements that 8 Q. 9 you've had with Eversource. I think you 10 testified before, there were many over the 11 years? 12 There have been some, yes, over the years. Α. 13 All right. How many? Q. 14 I'd have to actually think through the Α. 15 projects. So, we've worked with them on some 16 analysis regarding reliability transmission 17 projects, and what I call to be "market 18 resource alternatives" or "non-transmission

20 them on economic analysis around the NEEWS 21 Project in New England, which no longer is 22 called "NEEWS". But it had components like 23 Greater Springfield Reliability Project,

Interstate Reliability Project.

19

24

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alternatives". We worked many years ago with

		[WITNESS: Frayer]
1		Trying to remember. I'm sure there's
2		other projects in there focused on transmission
3		and wires-related investments that we've done,
4		on other on other transmission concepts that
5		they have thought through as well. So, let's
6		say at least a handful.
7	Q.	Okay. Would it be fair to say, from your
8		perspective being in this business, that
9		Eversource is an important client of your firm?
10	Α.	I treat every client as important.
11	Q.	Good answer.
12	Α.	And I think that, right now, Eversource, at the
13		moment I'm here, 100 percent of my time and
14		attention is on this Project and on Eversource.
15	Q.	Okay.
16	Α.	But, in terms of revenue contribution, we are
17		very diversified. I think Eversource is
18		probably single digits percentagewise of our
19		total revenue base.
20	Q.	Okay. And I think you testified earlier, I
21		don't want to go into a lot of detail, that you
22		had worked for Eversource in a couple of other
23		matters in New Hampshire related to this
24		Project. One being testimony before the Senate
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		committee looking at the eminent domain bill,
2		and the other one being an appearance on the
3		radio, I think it was NPR, with Christophe
4		Courchesne?
5	Α.	Yes. That's all essentially part of the same
6		engagement. But, yes.
7	Q.	Okay. And, in those contexts, both before the
8		Legislature and on the radio, you were an
9		advocate for Northern Pass, correct?
10	Α.	Yes. I guess you could say that.
11	Q.	Okay. Have you also been engaged to render
12		services to Hydro-Quebec, any of its
13		subsidiaries, affiliates, the parent, the
14		government of Quebec in any way?
15	Α.	Not on this Project, but I have worked with
16		Hydro-Quebec.
17	Q.	Okay. How many engagements have you had with
18		Hydro-Quebec?
19	Α.	Probably a handful, too.
20	Q.	Okay. And you have actually lectured, have you
21		not, for the government of Quebec on the way
22		the American transmission market works?
23	Α.	No. I testified at the Quebec regulator,
24		the

		[WITNESS: Frayer]
1		[Court reporter interruption.]
2	CONT	INUED BY THE WITNESS:
3	Α.	The regulator, the Régie, R-e-g-i-e. But it
4		was actually in a Hydro-Quebec transmission
5		tariff case, I believe, but it was for another
6		party, on behalf of another party. But I have
7		appeared before the Quebec regulator. I don't
8		think I've lectured the Quebec government. But
9		perhaps that's the one case you were referring
10		to.
11	BY M	IR. BAKER:
12	Q.	Probably a good decision not to try to do that.
13		Did your report filed with the Régie also
14		discuss the auctioning of transmission line
15		services?
16	Α.	It did discuss the concept of an auction for
17		allocation of transmission rights.
18	Q.	Okay. I'm not going to go into that. That may
19		be giving you some relief to know that I am
20		slowly moving to the end of my 30 minutes,
21		which may be a little bit longer given what's
22		developed this morning, but not much.
23		I want to show you what has been marked as
24		Counsel for the Public Exhibit 22.
		2015 OGLEDAN 15/Marring ONLY DEDACTED (06 12 17)

		[WITNESS: Frayer]
1		ADMIN. MONROE: You want the ELMO?
2		MR. BAKER: Yes. And I'm going to
3		use the ELMO. I think we're going to be okay.
4		But this is a demonstration of the depth of my
5		office employees; I have none.
6	BY MI	R. BAKER:
7	Q.	When you did your original report in October of
8		2015, obviously, you did not have a March 2017
9		press release in front of you. But, when you
10		did your update in April, I'm not sure whether
11		or not you had this press release that has been
12		marked as "Counsel for the Public 22" in front
13		of you.
14		Did you take any of the statements in this
15		press release or, let me withdraw that.
16		Here's the question: Did you know about this
17		press release when you wrote your update report
18		in that's in evidence in this case as
19		"Exhibit 81", Appellant's "Applicant's
20		Exhibit 81"?
21	Α.	I think I'm familiar with the article, and I
22		just don't remember the exact words that were
23		on the page. So, if I didn't read this press
24		release, I was definitely informed about it.
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WIINESS. Flayer]
1	Q.	Okay. So, when you finalized your update
2		report, did you take into account that
3		Hydro-Quebec was no longer willing to take any
4		risk in the construction of this transmission
5		line?
6	Α.	I did not take into account the statement you
7		made, but I don't believe the statement you
8		made is true either. So, there was no reason
9		for me to take that into account.
10	Q.	So, you do not read this statement from
11		Hydro-Quebec that it's going to rely on the
12		ratepayers in the United States to pay for the
13		transmission line over the tariffs that it pays
14		in long-term contracts, I know I'm not reading
15		it exactly right, because I can't see it from
16		here. But you didn't take that into account?
17	Α.	I don't believe that the press release is
18		intending to make that conclusion. The
19		Transmission Service Agreement that has been
20		approved by FERC, that has been signed by a
21		U.S. based affiliate of Hydro-Quebec, still
22		stands. So, Hydro-Quebec, through its
23		affiliate, is taking transmission service and
24		will be paying for it once the line is

		[WITNESS: Frayer]
1		constructed. I
2	Q.	Who told I'm sorry, you weren't done.
3	Α.	I think that this particular press release
4		needs to be taken in the context also of the
5		original article that was in the <u>Journal de</u>
6		Montréal, that that is what it's rebutting.
7		And there was some and you do need to read
8		it in the original French. I think the English
9		doesn't do justice to the original article.
10		But there was some confusion that they felt
11		they needed to clear up with this press
12		release.
13		But I don't make the conclusion that
14		you've made, knowing all the other elements and
15		facts in this case.
16	Q.	Yes. This press release, you understand, was
17		published by Hydro-Quebec on its website?
18	Α.	Yes. And I think it's meant to defuse
19		confusion about what the obligations would be
20		on Hydro-Quebec Distribution, which is the
21		company responsible for supplying Quebec
22		consumers. I don't think it negates any
23		aspects of commercial arrangements that have
24		been previously made and continue to hold
	(and	2015 OCLEDENT 15 Manning ONLY DEDACTED (OC 12 17)

		[WITNESS: Frayer]
1		between other affiliates of the Hydro-Quebec
2		Corporation with respect to Northern Pass.
3	Q.	Who told you that FERC had approved this
4		arrangement that Hydro-Quebec is now speaking
5		about?
6	Α.	No. I told I mentioned that FERC had
7		approved the Transmission Service Agreement,
8		the TSA.
9	Q.	Right. And the Transmission Service Agreement
10		that FERC approved was for the sale of
11		Hydro-Quebec's power into the New England
12		market, at wholesale market rates, correct?
13	Α.	The Transmission Service Agreement is for
14		transmission service, cost of service based
15		tariff of transmission service on Northern Pass
16		line. That's what the Transmission Service
17		Agreement speaks to.
18	Q.	Right. And the FERC order, if you've read it,
19		states very clearly that this is a
20		participant-funded project, where the
21		participants are going to pay for it, and the
22		American public, the ratepayers, would pay
23		market rates. Correct?
24	Α.	The American public, consumers here in the
	ſĊĿĊ	2015 06) [Day 15/Marping ONLY DEDICTED] (06 12 17)

	-	[WIINESS: Flayer]
1		U.S., would be paying market-based rates for
2		the commodities. But the commodities are not
3		the focus of the Transmission Service
4		Agreement. The focus of the Transmission
5		Service Agreement is the obligation for an
6		affiliate of Hydro-Quebec to take transmission
7		service and pay for it on a cost of service
8		basis to Northern Pass Transmission, I guess
9		it's an LLC, but I may be wrong, the entity
10		that
11	Q.	I don't want to be argumentative, but I do need
12		to understand where you got your belief that
13		FERC had approved this arrangement that
14		Hydro-Quebec is trying to describe in this
15		press release in March of 2017?
16	Α.	Sir, I'm sorry, but I think you're conflating
17		different things. What I said is that "FERC
18		approved the Transmission Service Agreement".
19		And the Transmission Service Agreement clearly,
20		to answer an earlier question, puts an
21		obligation on an affiliate of Hydro-Quebec to
22		pay for transmission service.
23	Q.	Are you aware that FERC has stated that the
24		Transmission Service Agreement that it approved
	(SEC	2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WITNESS: Frayer]
1		has not been extended, and that they have no
2		record of any amendments to that Transmission
3		Service Agreement in their files?
4		MR. NEEDLEMAN: Objection. If
5		there's a document that specifically says that,
6		you should put it in front of the witness.
7		CHAIRMAN HONIGBERG: He asked if she
8		was aware. She can answer that question.
9		MR. BAKER: I'm going to withdraw the
10		question. Because counsel is right, if I had
11		that document right with me, I could do it.
12		It's not important. The testimony is in the
13		record here, and we can go back and look at it.
14	BY M	R. BAKER:
15	Q.	Who told you that FERC had approved this
16		arrangement?
17	Α.	FERC had approved the Transmission Service
18		Agreement, you can pull it up on the FERC
19		E-Libraries to see that it's been filed with
20		FERC.
21	Q.	All right. And those orders that FERC entered
22		long predate the date on this press release,
23		don't they?
24	Α.	I don't disagree. But this press release is
	\SFC	$2015 - 06$ [Day 15/Morning ONLY-REDACTED] $\{06 - 13 - 17\}$

		[WIINESS: FLAYEL]
1		not saying anything in those in that
2		Transmission Service Agreement is void and
3		null. This press release is speaking, first
4		paragraph, directly, as I mentioned earlier,
5		rebutting an article in the local newspaper in
6		Montreal. It then goes on, and, as I said,
7		it's really focused on Quebec consumers. So,
8		it's speaking from a very particular division
9		of Hydro-Quebec. It's speaking from the
10		Hydro-Quebec Distribution's perspective, not
11		Hydro-Quebec Production, which we've talked
12		about in this case, you have to separate.
13	Q.	That's your distinction, not a distinction made
14		in the press release, correct?
15	Α.	It's a distinction known to anybody who
16		understands Hydro-Quebec.
17	Q.	And you claim to understand Hydro-Quebec?
18	Α.	I do claim to understand it, perhaps better
19		than some.
20	Q.	Okay.
21	Α.	Maybe not 100 percent, but I do understand that
22		basic fact.
23	Q.	Fair enough. Fair enough.
24	Α.	The second paragraph speaks to the

		[WITNESS: Frayer]
1		Massachusetts RFP. I don't see any mention
2		here of the TSA.
3	Q.	Well, who's going to pay for the construction
4		of Northern Pass in the United States,
5		according to this press release?
6	Α.	I don't think this press release talks about
7		that.
8	Q.	Well, doesn't the press release say that
9		American ratepayers will pay it through the
10		RFP?
11	Α.	There is a line that seems to imply that. But
12		I beg to differ. I believe what American
13		consumers will be paying for is the
14		commodities. They will be paying for the
15		energy and capacity, and any other products and
16		services that will be provided and delivered
17		via the transmission line.
18	Q.	So, you would have changed the press release to
19		say what you just said, not what it actually
20		says, is that correct?
21	Α.	Yes. Although I'm not part of the Media
22		Relations Department of Hydro-Quebec, but I
23		think that that piece, I would agree with you,
24		is misleading and unclear.

1	Q.	Okay. So, maybe you don't understand
2		Hydro-Quebec quite as well as you think, and
3		maybe you do. We don't know, do we? Because
4		the press release and what you say are two
5		different things?
6	Α.	I can't speak for Hydro-Quebec. I can speak
7		for what's written, and I can speak for the
8		facts that I know to be true.
9	Q.	I'd like to clean up something that happened on
10		Friday, I think it was Friday of last week.
11		This is Joint Muni Exhibit 210, and it's
12		Page 21. You were asked about this entry. And
13		I'm going to get closer, so I can read it, too.
14		I can actually read it better here.
15		This was Attorney Pacik's questioning of
16		you with respect to this Project that has the
17		green highlighting that I've put on there. And
18		this is a project that you did having to do
19		with a clean energy RFP. You see that?
20	Α.	I do see that.
21	Q.	Okay. Which clean energy RFP was this project
22		for?
23	Α.	This was for the Clean Energy RFP, which is
24		also known as the "Tri-State RFP" that occurred
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

1		last year.
2	Q.	Right. And that's
3	Α.	Or, actually started earlier than last year.
4	Q.	That's one that I believe your client,
5		Eversource, had participated in?
6	Α.	They did participate in it.
7	Q.	And they did not win a position in that one, is
8		that correct?
9	Α.	Yes. Actually, no transmission large-scale
10		transmission project won a contract from that
11		RFP.
12	Q.	Okay. And they were participating, in
13		particular, in connection with the Northern
14		Pass Project that's before this Committee,
15		correct?
16	Α.	Yes, and others.
17	Q.	Okay. You were asked by Attorney Pacik whether
18		you graded or ranked Northern Pass for that
19		project, and I recall you responded "no". Do I
20		recall that correctly?
21	Α.	I don't think I said "no" to that question. In
22		fact, based on the description, it says that we
23		looked at a number of potential projects that
24		can qualify.

		[WIINESS: FIAYEI]
1	Q.	Okay. Maybe I got it wrong, and I don't have
2		the transcript, I don't think it's been
3		published yet, but we can look at that when it
4		does get done. But can you amplify on your
5		answer or change what my understanding of your
6		answer was, did you, in fact, grade Northern
7		Pass for the Clean Energy RFP?
8	Α.	For this project, for this client, I probably
9		would have considered Northern Pass or
10		something that looks like Northern Pass in my
11		compilation of potential projects.
12	Q.	Okay. And, in your grading of that project for
13		this RFP, were they near the top or near the
14		bottom or somewhere in the middle?
15	Α.	I would honestly need to go back and take a
16		look. I apologize, but this was a project from
17		2015. I suspect they were near the top. But
18		it's a suspicion. I can't confirm without
19		going back and looking.
20	Q.	Okay. That clears that up. Now, I'd like to
21		talk specifically about my clients for a
22		minute, and they have this question: If the
23		average residential bill that they pay in New
24		Hampshire is 300 kilowatt-hours per month,

		[WITNESS: Frayer]
1		under your original report done in October of
2		2015, what is the projected monthly savings in
3		dollars and cents that they could expect?
4	Α.	I'd probably have to do the math.
5	Q.	Will that take you very long?
6	Α.	Perhaps I can tell you the number after the
7		break. I'm wondering if it's something I can
8		do here or not. I'm just looking to see if I
9		have it.
10	Q.	If it's easier, you can do 100 kilowatt-hours,
11		and we'll multiply by three.
12	Α.	I will have to take you up on this later,
13		because I don't believe anywhere, even in my
14		original report, I have the savings in cents
15		per kilowatt-hour. Even in my original report,
16		when I talk about retail electricity cost
17		savings, everything is dollar millions. So, I
18		need to go into the workbook and figure out
19		what it is dollars per or, cents per
20		kilowatt-hour to then do your math.
21		MR. BAKER: Okay. I have to address
22		the Chair, I'm sorry. But would it be all
23		right if I came back to get this information
24		later in the morning?

	[WITNESS: Frayer]
1	CHAIRMAN HONIGBERG: Yes. Just as
2	a how long do you think it would take you to
3	figure this out, Ms. Frayer?
4	WITNESS FRAYER: Hopefully, five
5	minutes, with my computer.
6	CHAIRMAN HONIGBERG: All right. It
7	is not a good time for a break right now for a
8	variety of reasons. Is there something else
9	you can move on to?
10	MR. BAKER: I can. I can move on.
11	CHAIRMAN HONIGBERG: We'll make sure,
12	when Ms. Frayer has done that calculation,
13	you'll get a chance to come back up, if
14	somebody else is doing the questioning.
15	MR. BAKER: Fine.
16	BY MR. BAKER:
17	Q. My clients also want to know what their savings
18	will be under the analysis done in your updated
19	report, because I understand the savings will
20	be somewhat less?
21	A. I will make sure to do the math for both.
22	Q. Now, let's talk about the concept of "savings".
23	You're not stating that they would be paying
24	less in the future than they pay now, correct?
	{SEC 2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1	Α.	No. That's not the concept we're trying to
2		capture. What we're saying is, they would pay
3		less in the future than they would have
4		otherwise paid in the future.
5	Q.	Right. So, it may, in fact, be an increased
6		bill that they're paying in the future, but
7		your claim is, under your analysis, if we
8		believe all your projections, that they would
9		not be paying quite as much in the future as
10		they would otherwise, is that correct?
11	Α.	That is the construct of the approach that
12		we've used, yes.
13	Q.	Okay.
14	Α.	Because it would be otherwise incorrect to
15		compare today to tomorrow. That's, again,
16		another apples-and-oranges comparison.
17	Q.	Okay. My clients have a another question.
18		They are all recreational or vacation home and
19		property owners, some of them are strictly
20		consumers of the recreation services offered by
21		their properties in northern New Hampshire.
22		One of them is a commercial real estate
23		developer and has plans for the property. They
24		have all, rightly or wrongly, been chilled by
	\ S F C	$2015 - 06$ [Day 15/Morning ONLY-REDACTED] $\{06 - 13 - 17\}$

{SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WIINESS: Frayer]
1		the overhang of Northern Pass for the last six
2		years or five years, depending on the date when
3		this Project was announced and then changed.
4		So, they have all had some concerns and
5		worries, which I think you can understand,
6		correct? Understand, that's all. You don't
7		have to agree with them.
8	Α.	I appreciate they have been under the
9		because I assume, when you say they're
10		"landowners" there, they abut the rights-of-way
11		or
12	Q.	Yes. They're all, in fact, under or over the
13		transmission line, depending on which one we're
14		talking about.
15	Α.	So, I can appreciate the uncertainty they have
16		been put through.
17	Q.	Okay. They want to know if your projections or
18		studies of the economic impact of this Project
19		have taken into account in any way the chilling
20		of any economic activity that might have been
21		caused by this Project in the past?
22	Α.	The study is looking forward. It is not really
23		considering any aspects of what has otherwise
24		occurred in the past, other than the dollars
	{ < F <	$2015 - 06$ [Day 15/Morning ONLY-REDACTED] $\{06 - 13 - 17\}$

		[WITNESS: Frayer]
1		spent, let's say, in 2015/2016, for the
2		planning stage of the Project.
3	Q.	Your figures project a in-service date for this
4		Project of what, 2020 or '21?
5	Α.	For energy sales, I believe it's, in the
6		original study, 2019. And, then, capacity
7		sales will start a bit later because of the
8		schedule of Forward Capacity Auction.
9	Q.	So, you're projecting a start date, a
10		commencement of service date 2019 still?
11	Α.	In the updated analysis, I think it moved a
12		little bit, but, essentially, in that ballpark.
13	Q.	Okay. Assume for a moment that the 2019 date
14		has slipped to 2020. Does your modeling
15		project any chilled or lost economic activity
16		for the State of New Hampshire, based on the
17		period of time from now until that in-service
18		date late '19, late '20, that is caused by the
19		uncertainty of the overhang of this Project?
20	Α.	I have not attempted to quantify that, any
21		aspects of what you're suggesting. I'm not
22		even sure how to,
23	Q.	Okay.
24	Α.	at the moment as I sit here. But I have not
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		studied any elements of that.
2	Q.	And I take it your answer would be the same
3		with respect to any lost economic activity as a
4		result of change of plans: I'm not going to
5		build my retirement home; I'm not going to do
6		my real estate development; I'm not going to
7		improve the garage; I'm not going to redo my
8		driveway; this is not going to be worth it,
9		because my investment will never come back to
10		me now. Those sorts of concerns. Have those
11		in any way been factored into your projections?
12	Α.	I have not figured those concerns into the
13		projections. Again, the projections we're
14		presenting here, for economic issues, GDP,
15		jobs, are at the state level. So, we have not
16		dug into the nuances that are really individual
17		stakeholder basis.
18	Q.	Okay. Along this same line, but a slightly
19		different question, do you agree that the
20		commencement of construction and the
21		commencement of service sometime in the future
22		on this Project is a future contingency that
23		will impact your projections, if your 2019/
24		2020 date for commencement of service is not

	1	[WIINESS: Frayer]
1		met, but is put off further into the future?
2	Α.	If the COD date moves, I think the timing of
3		the wholesale electricity market benefits that
4		I have predicted will move. But it will not
5		reduce the value and magnitude of those
6		benefits.
7	Q.	But it would affect your projections, correct?
8	Α.	Well, it would shift the time frame of those
9		electricity cost savings. And I think that's
10		already somewhat represented, if you do compare
11		the original report and the updated analysis,
12		because we did do a shift. We no longer report
13		2019 impacts in the updated analysis, we start
14		with 2020.
15	Q.	Right. So, the further out it extends, the
16		more your projections have to shift into new
17		projection time periods, correct?
18	Α.	That's a reasonable characterization, yes.
19	Q.	Okay. And, so, that's one contingency that
20		could affect your predictions. You have also
21		been engaged by Eversource to help it out in
22		its tax appeal in New Hampshire involving New
23		Hampshire municipalities, is that correct?
24	Α.	No, not to my knowledge.

1	Q.	You didn't do any work on that case?
2	Α.	No, I did not.
3	Q.	Okay. Are you aware that the New Hampshire
4		Supreme Court issued a decision on June 2 by
5		ruling against Eversource on its tax bill?
6	Α.	I overheard some discussions, but I'm not very
7		familiar with the case.
8	Q.	Okay. If that case were to result in a higher
9		assessment of taxes on utility property
10		throughout the State of New Hampshire, or the
11		possibility of that, is that a contingency that
12		could impact your analysis of projected
13		benefits and savings from this Project?
14	Α.	You said a "higher
15	Q.	Higher
16	Α.	property tax bill"?
17	Q.	Correct. Yes.
18	Α.	Well, a higher property tax bill will actually
19		increase benefits to New Hampshire consumers in
20		general, because it means there's more spending
21		by local governments possibly from the higher
22		tax revenues they have collected.
23	Q.	And who will pay for the higher tax benefits to
24		the communities?

		[WITNESS: Frayer]
1	Α.	Well, my understanding is Eversource is the
2		payer of those local income local property
3		taxes.
4	Q.	Right. And
5	Α.	Or, I should say Northern I guess Northern
6		Pass would be the entity paying those property
7		taxes.
8	Q.	Right. And those property taxes will get
9		passed on to ratepayers, if ratepayers bid for
10		these services, won't they?
11	Α.	Now I'm confused with your question. How
12		does
13	Q.	If the cost of management and operation of
14		Northern Pass goes up, will it in any way
15		impact your projections of the future for this
16		Project in New England and in New Hampshire?
17	Α.	As I said, if Northern Pass has to pay higher
18		property taxes, those local property taxes, the
19		revenues collected, will allow local
20		governments to expand services, which amplify
21		economic activity and increase the local
22		economic benefits beyond what we have measured.
23	Q.	And, when this Project bids in to any future
24		requests for proposal, like the Clean Energy
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1one, which you've already studied, and the2Massachusetts one that's upcoming, isn't there3going to have aren't they going to have to4bid in their expenses of operation, too, in5order for Hydro-Quebec not to take any risk?6A. Well, I don't agree with your premise that7Hydro-Quebec is not taking any risk.8Q. Okay. So, that's a question that you won't9answer, because you and I have a different10view of what Hydro-Quebec is willing to do,11correct?12A. Correct.13Q. Okay.14A. I do agree property taxes are a cost of doing15business for the Project, and property taxes16are going to be part of the tariff that17Hydro-Quebec or its affiliate bids into these18Hydro-Quebec or its affiliate bids into these19RFPs, these are extremely competitive. It's20not going to be able to, if its cost of21business goes up by a buck to increase its bid22by a buck. These are competitive, very23competitive auctions. The price is not going24to be based on kind of a cost of service		-	[WIINESS: Flayer]
3 going to have aren't they going to have to bid in their expenses of operation, too, in order for Hydro-Quebec not to take any risk? 6 A. Well, I don't agree with your premise that Hydro-Quebec is not taking any risk. 8 Q. Okay. So, that's a question that you won't answer, because you and I have a different view of what Hydro-Quebec is willing to do, correct? 12 A. Correct. 13 Q. Okay. A. I do agree property taxes are a cost of doing business for the Project, and property taxes are going to be part of the tariff that Hydro-Quebec or its affiliate bids into these 19 RFPs, these are extremely competitive. It's not going to be able to, if its cost of business goes up by a buck to increase its bid by a buck. These are competitive, very competitive auctions. The price is not going	1		one, which you've already studied, and the
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 8 Q. Okay. So, that's a question that you won't 9 answer, because you and I have a different 10 view of what Hydro-Quebec is willing to do, 11 correct? 12 A. Correct. 13 Q. Okay. 14 A. I do agree property taxes are a cost of doing 15 business for the Project, and property taxes 16 are going to be part of the tariff that 17 Hydro-Quebec or its affiliate bids into these 19 RFPs, these are extremely competitive. It's 20 not going to be able to, if its cost of 21 business goes up by a buck to increase its bid 22 by a buck. These are competitive, very 23 competitive auctions. The price is not going 	6	Α.	Well, I don't agree with your premise that
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Hydro-Quebec or its affiliate bids into these RFPs, these are extremely competitive. It's not going to be able to, if its cost of business goes up by a buck to increase its bid by a buck. These are competitive, very competitive auctions. The price is not going	16		are going to be part of the tariff that
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23 competitive auctions. The price is not going	21		business goes up by a buck to increase its bid
	22		by a buck. These are competitive, very
24 to be based on kind of a cost of service	23		competitive auctions. The price is not going
	24		to be based on kind of a cost of service

		[WITNESS: Frayer]
1		pass-through of all the costs of business. The
2		price is going to be based on what can the
3		market bear as a price for whatever is the
4		commodity, clean energy, renewable energy
5		certificate, capacity, whatever the commodity
6		is that's being sought in that RFP.
7	Q.	I totally agree with what you've just said.
8		But doesn't that make it more likely that the
9		bid that is put in might be slightly higher
10		than it would have been before this Supreme
11		Court decision came down?
12	Α.	In my opinion, not necessarily. But I'm not
13		the person responsible for putting in the bid.
14	Q.	Okay. Fair enough.
15	Α.	I believe the bid needs to be put together in
16		such a way as to ensure the Project has the
17		highest likelihood of winning the RFP and being
18		competitive with all the potential other
19		suppliers.
20	Q.	All right. I'd like to change the subject
21		slightly to the CELT Report, C-E-L-T. What
22		does that stand for again, so we're all on the
23		same page?
24	Α.	Capacity, Energy, Load, and Transmission.

	-	[WITNESS: Frayer]
1	Q.	Okay.
2	Α.	It's a projection.
3	Q.	Without going into your report, I think your
4		original report and your updated report pointed
5		out that the 2015 CELT Report from ISO-New
6		England, compared to the 2016 CELT Report from
7		ISO-New England resulted in a slight reduction
8		in benefits for the ratepayers, projected in
9		your in your updated report?
10	Α.	I would actually change that statement a little
11		bit. I would agree that my updated analysis
12		showed that the CELT the vintage of the CELT
13		that we relied on in the updated analysis,
14		relative to the prior vintage that we relied in
15		the original report, was showing a downward
16		trend. And that total electric consumption
17		that was used in the projections in the
18		original report were now lower in the updated
19		analysis. And we did conclude that it was a
20		contributing factor. But I don't think in
21		isolation you can just point to that one,
22		because we to that one issue, since we made
23		a number of different changes that, on the
24		composite, some of which wouldn't maybe move in
	{ S F C	2015-061 [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WITNESS: Frayer]
1		an opposite direction, and a composite we
2		reported the consolidated effect of all the
3		changes in our updated analysis.
4	Q.	Right. So, you had before you, when you did
5		your original report, 2015 CELT Report. When
6		you did your update, you had the 2016 Report,
7		and maybe some draft figures from 2017, did you
8		take those into account?
9	Α.	No. We didn't take anything related to the
10		2017, because the drafts were premature at that
11		time.
12	Q.	Okay. On Friday, you said you had been you
13		had received the Draft 2017 CELT Report figures
14		for energy consumption?
15	Α.	Yes. I have since then reviewed some of those
16		that have come out earlier this year.
17	Q.	And the 2017 CELT Report was published, the
18		final report, last month, correct?
19	Α.	In May, yes.
20	Q.	Yes. And that report shows continued decline
21		in the projected New England energy consumption
22		rate, correct?
23	Α.	Yes, it does. Total energy consumption.
24	Q.	Okay. So, am I correct in concluding, from
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

1 your updated report statement on the effect of 2 this, that, all else being equal, lower energy 3 consumption would result in lower energy market 4 benefits from any project like Northern Pass? 5 Α. Yes. But that's an incomplete statement. The 6 second part of that, the second or 7 consequential element of that, if you're looking at it as the only parameter of change 8 9 is that, holding all else equal, lower -- lower 10 electricity consumption means lower energy prices. Lower energy prices drive energy 11 12 market benefits down.

13 But, in an environment of lower energy 14 market prices, we need to expect, and this is 15 not just my forecast, this is the ISO-New 16 England's expectation, a basic fundamental 17 market expectation, too, that capacity prices 18 would have to rise. And, as capacity prices 19 rise, we get higher capacity market benefits. 20 Q. Okay. All else being equal, then lower energy 21 consumption, as demonstrated in the 2017 CELT 22 Report that is now published, if you had been 23 able to model that, may have had an impact in 24 further showing a decline in the projected

	-	[WITNESS: Frayer]
1		savings, correct?
2	Α.	No. It would have showed a decline in the
3		wholesale energy market benefits, but likely an
4		increase over time, in the longer term, in
5		capacity market benefits. So, on the net, when
6		you say "electricity savings", I think you're
7		referring to "retail", the composite of the
8		entire electricity market, on the net. I think
9		it's an empirical question. But, again,
10		ISO-New England understands this, has published
11		many times this relationship, and we model this
12		as well, there's an integration between the
13		energy and capacity market. It's a single
14		balloon. If you squeeze it on one side, the
15		other side of the balloon gets bigger.
16	Q.	Have you finished the answer?
17	Α.	Sorry. Yes.
18	Q.	Okay.
19	Α.	Thank you.
20	Q.	What I'm showing you on the screen is from your
21		updated report. It's the Page 2 disclaimer.
22		You recognize it?
23	Α.	Yes.
24	Q.	Okay. This disclaimer, with maybe a couple of
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		words variation, also appears in your original
2		report and in your rebuttal report that's in
3		evidence. I'd like to unpack it a bit.
4		Are you disclaiming responsibility for not
5		including recent developments in this report?
6	Α.	No. We're not saying we're not taking
7		responsibility. We're saying that there may be
8		other recent developments which may not be
9		included in the analysis since the analysis was
10		done.
11	Q.	Right. And where we've just talked about a
12		couple of the recent developments, the May CELT
13		Report?
14	Α.	That's an example.
15	Q.	Yes.
16	Α.	Relative to, let's say, the February 2017
17		updated analysis.
18	Q.	Sure. Whatever the position of Hydro-Quebec
19		is, as it modifies its position, and I'm not
20		going to characterize it, because you and I
21		disagree on that. But those sorts of things
22		can't possibly be anticipated when you're
23		writing, you can only anticipate the past,
24		correct?

	r	[WIINESS: FIAYEI]
1	Α.	No. I think some things you can anticipate.
2		But certain elements you're not going to
3		capture. So, there's a distinction here. And,
4		with respect to the CELT, we like to use the
5		latest available forecast from the ISO-New
6		England. But, subsequent, over time, new
7		forecasts will get developed by ISO-New
8		England. And, because we're relying on the
9		ISO-New England forecasts, we can't anticipate
10		what they might say in the future.
11	Q.	You're also declining to guarantee any of the
12		results you forecast, correct?
13	Α.	That is what this text shows. And, if you
14		if I may, if I can give an understanding of
15		that. All those bullet points kind of refer to
16		the entirety of this disclaimer, which is
17		something that we put on every single report.
18		It's meant to ensure that readers of this
19		report do their own due diligence. Many times
20		our reports are used for investments,
21		financing, lending, of significant sums of
22		money, and we want to make sure that investors
23		know that we're not providing investment
24		advice. So, we use this type of disclaimer

		[WITNESS: Frayer]
1		routinely on all of those reports for that
2		purpose.
3	Q.	Is it just boilerplate?
4	Α.	It is.
5	Q.	Is it meaningful at all?
6	Α.	Our lawyers, our external counsel requires us
7		to put it on all of our reports and thinks that
8		it's and our Management Committee thinks
9		that it's wise.
10	Q.	Those lawyers are pesky devils, aren't they?
11	Α.	Well, I think it puts everybody on notice, when
12		they read this disclaimer, that, to the extent
13		they're making an investment, they need to do
14		their own due diligence as well.
15	Q.	Well, my clients have made an investment in the
16		State of New Hampshire. And they want to know
17		what they should do with their investments.
18		Whether they should abandon them or improve
19		them or wait to see what happens. And your
20		disclaiming responsibility for any investment
21		decision that they might make, correct?
22		MR. NEEDLEMAN: Objection.
23		MR. BAKER: I want to unpack and
24		understand what this disclaimer means. Because
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

[WITNESS: Frayer]
this witness is making these same
representations to this Committee. And I want
to understand what firmness there is behind
them.
MR. NEEDLEMAN: This disclaimer can'

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MR. NEEDLEMAN: This disclaimer can't possibly have anything to do with individual investment decisions of his clients.

8 MR. BAKER: We're being asked by Northern Pass to make an investment decision 9 10 about the merits of this Project and what it 11 will do to this state and its environment, its 12 scenic beauty, and whether or not this makes 13 sense for not just us, but our ratepayers, 14 perhaps the consumers in New England. I don't 15 know what the Committee's position will be on 16 that.

So, it seems to me that this disclaimer needs to be understood. And this is a question designed to elicit more understanding about it.

21 CHAIRMAN HONIGBERG: I think you can 22 ask her if she has any more she can say about 23 the significance of this disclaimer. You can 24 continue to a limited extent. But the premise {SEC 2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		of the question started with was "your clients'
2		investments". The argument you just made was a
3		much larger, broader argument, related to the
4		statutory system we're operating under here.
5		So, I think you might
6		MR. BAKER: I'll withdraw
7		CHAIRMAN HONIGBERG: you might
8		have questions you could ask about both, but
9		MR. BAKER: I'm going to withdraw the
10		question about my clients. I'm going to
11		broaden it to the State of New Hampshire.
12	BY M	R. BAKER:
13	Q.	Aren't you asking the State of New Hampshire to
14		rely in my some way on your projections, to
15		determine whether or not there's any public
16		benefit from this project?
17	Α.	I am.
18	Q.	And, in light of this disclaimer, is there
19		anything that you would like to take back, take
20		out, tell the lawyers they're crazy?
21	Α.	No. I stand behind the rigors of my analysis.
22		I believe it's providing a very robust set of
23		empirics for the Committee to rely on. This is
24		a disclaimer that I have to put on every report
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

		[WIINESS: Flayer]
1		that has a forecast in it. And it is what it
2		is. I didn't draft the disclaimer. The
3		lawyers drafted the disclaimer. And it
4		appears, I think, on every forecast report that
5		we have been issuing for many years.
6	Q.	Earlier this morning you stated, and I think I
7		wrote it down word-for-word, "advocates tend to
8		be more optimistic in their forecasting."
9	Α.	Associations. And this is in regards to the
10		Solar Association, yes.
11	Q.	Right. And you were an advocate, were you not,
12		for Eversource, in 2011, when you testified in
13		the Legislature and when you were on the radio?
14	Α.	I think I said that I would accept that I was
15		advocating. But I think my testimony, with
16		respect to those particular project
17		engagements, was not to say to the siting
18		committee at that time "approve this Project".
19		I think I was speaking a little bit more
20		broadly and saying "New England needs new
21		infrastructure, like this Project. It has lots
22		of benefits."
23		I recognize that there are stakeholders
24		that have concerns about negative impacts. But
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		I felt at the time, when I was doing my
2		presentations, there wasn't a volume of
3		information available to stakeholders about the
4		benefits. And, for me, it's important to have
5		the complete picture, if I'm put in a position
6		to make a decision.
7	Q.	You do
8	Α.	So, I wasn't, you know, an investor in the
9		Project, going around saying "Yes, you got to
10		invest in it." I was doing independent
11		thinking and analysis about the state of the
12		New England system and how the Project would
13		fit in.
14	Q.	Yes. Do you think that the folks you were
15		talking about this morning who did forecasting
16		that you said might be "overly optimistic
17		because they were advocates", do you think
18		they'd answer the question the same way you
19		just did?
20	Α.	I don't know how they would answer the
21		question. But they are a specific type of
22		organization. They are not an independent
23		consultant. If you showed me a solar PV
24		forecast from another independent consultant, I
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

WITNESS: Frayer] 1 would say that I would have to review it with a 2 different foundation. But that was a solar 3 association representing manufacturers and vendors that sell solar PV installations and 4 5 other related projects. And you claim to be an independent professional 6 Q. 7 in this matter? Yes. I am an independent economic consultant. 8 Α. 9 Right. And you were paid how much? Q. 10 I think we've discussed it this morning. Α. 11 We did. Ο. 12 I get paid for all my services. That's how I Α. 13 survive. That is -- I am paid for the 14 information that I provide. 15 Okay. And, if you don't get paid, you don't Q. 16 work, right? 17 If I am not being paid for my services, I Α. 18 don't -- this isn't a hobby. 19 Right. But you disclaim --Q. 20 Α. This is my job. 21 But, for all that money and for all that work, Q. 22 you disclaim responsibility, you don't 23 guarantee it, do you?

MR. NEEDLEMAN: Objection. That's

24

1 not what she said. CHAIRMAN HONIGBERG: I agree. It's 2 3 sustained. 4 MR. BAKER: Subject to the rate 5 questions I had, I'm finished with my 6 cross-examination. 7 CHAIRMAN HONIGBERG: This is a good time for the morning break. We'll take fifteen 8 minutes. Just off the record. 9 10 (Recess taken at 10:32 a.m. and 11 the hearing resumed at 10:58 12 a.m.) 13 BY MR. BAKER: 14 The question that --0. 15 CHAIRMAN HONIGBERG: Wait. I wanted 16 to make sure you were ready. You were ready? 17 MR. PATNAUDE: Yes. 18 CHAIRMAN HONIGBERG: Okay. You may 19 Sorry about that. proceed. 20 Thank you, Mr. Chairman. MR. BAKER: 21 BY MR. BAKER: 22 The question that you were going to research Q. 23 was, under the original report, and then under 24 the updated report, what would the savings be {SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

i		[WITNESS: Frayer]
1		to a customer in New Hampshire who uses 300
2		kilowatt-hours per month, on average? And I'd
3		like the savings to be stated, the monthly
4		savings that you project.
5	Α.	I actually calculated the annual. So, I hope
6		that's sufficient, instead of the monthly. We
7		have a blended rate savings calculation. So,
8		it covers all types of customers. And, under
9		the let me give you the numbers, and then I
10		will try to explain that a little bit further.
11		Under the original report, it would be \$24
12		a year, on average, over the forecast time
13		frame, for all types of customers. This is,
14		you know, ranging from various residential
15		customers, with seasonal vacation homes,
16		full-time homes, all the way to
17		commercial/industrial customers, like a ski
18		resort that's spending thousands of dollars
19		during their winter operating season.
20		And, under the updated analysis, that same
21		number would be \$18 a year. Again, blended

rate, covering all kinds of rate categories, rate classes.

Okay. Do you have -- do you have written out Q. {SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

		[WIINESS: Flayer]
1		the formula by which you calculated that
2		conclusion or is that going to be something
3		that's difficult for you to hand me right now?
4	Α.	Can I speak it? I don't have it written out.
5	Q.	Yes. You can speak it. That would be fine.
6		Thank you.
7	Α.	So, and it's probably good to refer to my
8		original report, so you can see where the
9		numbers kind of stem from. It is a
10		confidential portion of my original report,
11		Figure 72, on Page 113. This is the
12		October 16, 2015 report. And, if you look
13		under the row that is representing New
14		Hampshire, you will see, under the "Average"
15		column, a figure of approximately 80 million.
16		That figure itself isn't confidential, because
17		it's also in my original summary.
18		You take that and you divide it out by the
19		gigawatt-hours of annual energy sales in New
20		Hampshire, which is about 12,000, a little bit
21		less, 12,000 gigawatt-hours. You then get a
22		dollar per megawatt-hour or a cents per
23		kilowatt-hour number. And that is then
24		multiplied by your assumed level of

		[WITNESS: Frayer]
1		consumption. I believe it was 300
2		kilowatt-hours a month, times 12 months.
3	Q.	Okay. So, I recognize you're using a blended
4		rate, and that is probably the best we can do
5		right now. But, if I told my clients that this
6		300 kilowatt-hours per month would result in a
7		savings, under your original report, of about
8		\$2.00 a month, and under the amended report of
9		about \$1.50 a month, would that be accurate? I
10		think it is.
11	Α.	I think so. But it assumes a particular,
12		again, type of level of consumption. For, just
13		as a hypothetical, a ski resort, that's
14		consuming, of course, a lot more electricity,
15		but is under a different type of rate class,
16		would have a very different dollar impact on
17		their monthly bill.
18	Q.	Right. And then, under the new ISO-New England
19		2017 CELT, C-E-L-T, Report, this projected
20		customer savings could further go down, but you
21		haven't done that analysis, correct?
22	Α.	I would argue, based on what we discussed
23		earlier, it's not necessary that it would go
24		down. It could go down, it could go up,
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1		actually, because this number, although it's
2		represented volumetrically per megawatt-hour or
3		kilowatt-hour of energy consumed, is including
4		capacity markets. And, as I said, if energy
5		use energy use goes down, and results in
6		lower energy prices, it could actually increase
7		capacity market prices. And, so, on a consumer
8		bill, it may not actually show up as a neutral,
9		and it would actually potentially create much
10		bigger benefits, because this Project is really
11		about driving capacity market the benefits
12		of this Project are really much more focused on
13		the capacity market savings than energy
14		savings.
15	Q.	Is it fair to say that our outlook on the
16		future changes from day-to-day and
17		moment-to-moment, as these reports from various
18		agencies come in and the assumptions that we
19		make change, as to our projections of economic
20		activity and billing rates and all of those
21		sorts of things? Isn't that fair to say?
22	Α.	I would agree with the first part of your
23		question in principle. Generically, that our
24		outlooks for the future do evolve with time as
		201E 0(1) Der 1E (Manning ONLY DED (CTED) (0(-12, 17))

		[WITNESS: Frayer]
1		new information becomes available. That said,
2		I'm very confident that the forecasts we've
3		done are rigorous and robust as I stand here
4		today and reliable for the purposes of the
5		Committee.
6	Q.	Okay. I'm also done. This doesn't have to be
7		an exhibit. It just to show you what a French
8		poet, essayist, and philosopher said many, many
9		years, Paul Valéry. And I won't read the
10		French, because my pronunciation is terrible.
11		Yours sounds like it's going to be much better.
12		But would you agree with this quote from
13		Monsieur Valéry?
14	Α.	It's quite philosophically whimsical.
15	Q.	Okay.
16	Α.	So, entertaining, for sure.
17	Q.	Well, let's take it back to the ballpark
18		analogy. Do you agree with this wonderful
19		baseball legend, Mr. Berra?
20	Α.	I like what he's saying. And I think I
21		actually said it a few times over the course of
22		the last few days, that, and it may have been
23		actually, Mr. Baker, to one of your questions.
24		You can't look at what we're paying today and
	(C E C	2015 061 [Day 15/Marning ONLY DEDACTED] (06 13 17)

		[WIINESS: Frayer]
1		say that cost savings is relative to what we
2		are paying today or in the past. It's a
3		question of the cost savings we will achieve by
4		doing something different in the future. And
5		this project is going to create that, because
6		it's going to change the units that would
7		otherwise set the price of energy, set the
8		price of capacity, by infusing a new supply
9		into the market that's competitive, it will
10		create those rate savings.
11	Q.	And those projections keep changing, don't
12		they?
13	Α.	Projections do evolve.
14		MR. BAKER: Thank you. Thank you,
15		Mr. Chairman. I'm done.
16		CHAIRMAN HONIGBERG: I understand
17		that Mr. Palmer and his group are still not
18		here. I am informed that Ms. Crane has ten
19		minutes she would like to do, before we get to
20		you, Ms. Birchard.
21		MS. CRANE: And I think it's just a
22		handful questions. And is it appropriate, if I
23		don't have an exhibit, to just proceed from
24		here?

		[WITNESS: Frayer]
1		CHAIRMAN HONIGBERG: Sure.
2		MS. CRANE: Thank you.
3	BY MS	S. CRANE:
4	Q.	Am I correct that in your October 2015 Report
5		and analysis, any changes to reflect the change
6		in the route from what had been announced
7		previously would actually be captured in
8		changes in the inputs, in terms of dollars
9		spent by the Project? Is that a fair
10		assumption on my part?
11	Α.	I'm not sure I can answer, because I think
12		you're asking about changes in route. To tell
13		you the truth, I'm probably not the right
14		person to talk about changes in route.
15	Q.	But your original analysis was done with inputs
16		that reflected which route?
17	Α.	Again, let's see if I can if my own report
18		answers it, but it may not.
19		I had, in Section 4 of my original Report,
20		I had a description of the Northern Pass
21		Transmission Project that I modeled. And it
22		talks an HVDC line from the Canadian border to
23		Franklin, and it then talks about the AC
24		transmission line. There is a map there. But
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		I don't believe I go into the specifics of the
2		route, unfortunately. So, I'm not sure I can
3		answer your question. That probably is better
4		asked of the construction experts at
5		Eversource.
6	Q.	So, whatever your original analysis was, it
7		didn't change substantially
8	Α.	That is my understanding.
9	Q.	at some point. Okay.
10	Α.	That is my understanding.
11	Q.	And that's fine. And I had another question
12		about the REMI model, which you have referred
13		to on a number of occasions as conducting only
14		a producing only a statewide result, is that
15		right?
16	Α.	Yes. We are using currently what I call a
17		"state-by-state New England model".
18	Q.	Okay.
19	Α.	That represents economic activity at the state
20		aggregate level, by industries, but states, not
21		more geographically detailed than that.
22	Q.	And you will recall, in Section 5.2 of your
23		rebuttal testimony filed in April, you talk
24		about the fact that displaced business moves to
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		[WIINESS: Frayer]
1		other communities, and, therefore, when there's
2		a temporary dislocation in economic activity,
3		it's made up for in the neighboring
4		communities. Do I have that is that a
5		correct summary of the conclusions in that
6		section?
7	Α.	I think the only change I would make to your
8		summary is that I said "it could".
9	Q.	Okay. Does the REMI model know where state
10		boundaries are?
11	Α.	From an economic activity perspective, yes.
12		It's trying to capture a realistic depiction of
13		economic activity in each state. And it's
14		using data from the states, from the BEA/BLS,
15		which compiles data, statistical data on
16		economic activity/labor markets state by state.
17	Q.	Does it understand that any of that economic
18		activity is actually location-specific?
19	Α.	Location-specific geographically at the state
20		level? Or are you speaking substate level?
21	Q.	Well, I'll ask my ultimate question. If I were
22		going to go kayaking on the Pemi putting in in
23		Plymouth, okay, and I know that I can't get
24		where I want to go easily or I fear that I
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		[WITNESS: Frayer]
1		can't want to go get where I want to go
2		easily, putting in where I habitually have in
3		Plymouth or just north of Plymouth, so I decide
4		to go to the Saco, in Maine. Does your model
5		account for that loss of business?
6	Α.	In the hypothetical that you've created, we
7		could dictate to the model that there is a
8		specific impact in New Hampshire that's
9		substituted for in Maine.
10	Q.	Did you have any inputs that actually did that?
11	Α.	No, we did not.
12		MS. CRANE: Okay. Thank you. That's
13		all I wanted to ask.
14		CHAIRMAN HONIGBERG: All right. The
15		environmental groups, Ms. Birchard, I think
16		you're up.
17		MS. BIRCHARD: Thank you, Mr.
18		Chairman is that working? Yes. Thank you,
19		Mr. Chairman. And thank you for the
20		opportunity to conduct my non-public
21		questioning prior to the public questioning, I
22		believe.
23		CHAIRMAN HONIGBERG: Wait. Well,
24		wait. You're going to do non-public first?
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

WITNESS: Frayer] 1 MS. BIRCHARD: Oh, no. Excuse me. 2 Public questioning, prior to the non-public. 3 CHAIRMAN HONIGBERG: All right. MS. BIRCHARD: I know that issue came 4 5 up on Friday, and I appreciate your flexibility 6 on that. 7 CHAIRMAN HONIGBERG: That's good. You just scared me for a minute when you put it 8 9 the way you did. 10 MS. BIRCHARD: I think you'll find 11 this to be expeditious, and I hope we will be 12 done well before lunch. 13 Also, if it please the Committee, I 14 am going to relocate to a spot where I don't 15 have a column between myself and Ms. Frayer. 16 WITNESS FRAYER: Thank you. 17 CHAIRMAN HONIGBERG: Off the record. 18 [Brief off-the-record discussion 19 ensued.] 20 CHAIRMAN HONIGBERG: Ms. Birchard, 21 you may proceed. 22 MS. BIRCHARD: Thank you. I will be 23 connecting to the Apple TV. 24 Ms. Frayer, good morning. My name is {SEC 2015-06} [Day 15/Morning ONLY-REDACTED] {06-13-17}

1	Melissa Birchard. I'm an attorney for
2	Conservation Law Foundation. I also am the
3	designated spokesperson for a grouping of NGOs
4	comprised not only of CLF, but also of
5	Ammonoosuc Conservation Trust and the
6	Appalachian Mountain Clubs, for purposes of
7	this particular proceeding.
8	WITNESS FRAYER: Good morning.
9	MS. BIRCHARD: Are you seeing
10	anything on your screen right now?
11	WITNESS FRAYER: I think so. It's
12	like an alphabetical list of
13	MS. BIRCHARD: Okay. That's fine.
14	Yes.
15	BY MS. BIRCHARD:
16	Q. Ms. Frayer, according to your curriculum vitae,
17	you manage LEI's you don't need to look at
18	the list at this point, I just wanted to make
19	sure it was functional. According to your are
20	why curriculum vitae, you manage LEI's
21	quantitative financial and business practice
22	area, working with a team of economists and
23	consultants. Is that correct?
24	A. Yes.

1	Q.	Subjects that you address in your work include
2		electric generation sector market power and
3		anti-trust analysis, cost of capital
4		estimation, rate-setting analysis, forecasting
5		of wholesale power prices, and energy sales
6		agreements, among others, correct?
7	Α.	I think that's an excerpt of my CV, but
8	Q.	It is. It comes from Attachment A to
9		Applicant's Exhibit 28, which is your CV.
10	Α.	Yes. That sounds subject to check, I think
11		you're reading a specific paragraph of that.
12	Q.	And I believe you already discussed with
13		Mr. Reimers your time as an investment banker
14		at Merrill Lynch, and your BA and MA in
15		Economics, correct?
16	Α.	Yes. Those are my degrees.
17	Q.	And, in the past, you've had speaking
18		engagements on the following subjects, among
19		others: Perspectives on future trade
20		opportunities between Canada and the U.S.; the
21		planning and development of merchant
22		transmission; and international views and
23		addressing the need for more underground
24		transmission in the U.S. Is that also correct?
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

1	Α.	I think that's a few that you've pulled out
2		from the list, yes.
3	Q.	Correct. Ms. Frayer, you don't have prior
4		training in engineering, is that correct?
5	Α.	I am not an engineer.
6	Q.	You also don't have prior training in
7		environmental science, is that correct?
8	Α.	I am not an environmental scientist. Although,
9		some aspects of environmental impacts from the
10		electricity market are a natural element of the
11		work I do.
12	Q.	Let me just revisit that question. You don't
13		have prior training in environmental science,
14		is that correct?
15	Α.	I don't have any degrees in environmental
16		science.
17	Q.	Thank you. I have marked as "Exhibit NGO 18" a
18		scientific article published in the magazine
19		BioScience in November 2016. You can see that
20		article before you. Does it appear on your
21		screen?
22	Α.	Yes, it is. It's just too small for me to
23		read.
24	Q.	You don't need to read the article at this
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		point. But, if you would look at the title,
2		the article is entitled "Greenhouse Gas
3		Emissions from Reservoir Water Surfaces: A new
4		Global Synthesis". Do you see that?
5	Α.	I see the title.
6	Q.	And <u>BioScience</u> is a journal published by Oxford
7		University Press, on behalf of the American
8		Institute of Biological Sciences. You can see
9		that in the footer.
10		In any event, this article suggests that
11		there is significant uncertainty around the GHG
12		impacts of hydroelectric power, including
13		emissions of methane, a potent heat-trapping
14		gas. The study concludes that emissions of
15		methane are 25 percent higher than prior
16		studies found, and that methane accounts for
17		79 percent of carbon dioxide equivalent
18		emissions from reservoirs. Are you previously
19		aware of this article?
20	Α.	I don't recall if I've reviewed this article.
21		I have reviewed other studies that have looked
22		at greenhouse gas emissions when new reservoirs
23		are formed. And I believe this aspect is the
24		topic of discussion here, too, the flooding of
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WIINESS: rlayer]
1		the landscape in forming a new reservoir.
2	Q.	This is an overview article, as you can see
3		from the very header on each of the pages, it's
4		an overview article of the science, you know,
5		study of all of the science on the subject.
6		So, if you don't mind, I've pulled up a
7		specific page. If we briefly turn to the top
8		left of Page 959, that way I can make it larger
9		for you. At Line 2 it reads: "There is a
10		crucial need to better constrain GHG emissions
11		from boreal reservoirs, especially the relative
12		role of diffusive versus ebullitive CH ₄
13		emission pathways. The roles of reservoir
14		typology, spatiotemporal variability, and
15		ecosystem productivityall deserve further
16		analysis."
17		Ms. Frayer, have you ever personally
18		studied ebullitive ebullitive CH_4 or methane
19		emissions?
20	Α.	No, I have not.
21	Q.	On the top right of the same page, I'll make
22		that larger for you, it reads: Despite the
23		considerable uncertainty associated
24		[Court reporter interruption.]
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1	BY M	S. BIRCHARD:
2	Q.	"Despite the considerable uncertainty
3		associated with the reservoir-specific GHG
4		emission estimates synthesized here, we argue
5		that these data provide a low-end estimate of
6		global emissions."
7		It then goes on to explain why. "A recent
8		study quantified the effects of spatial and
9		temporal sampling resolution on diffusive and
10		ebullient CH_4 emission estimates from three
11		shallow boreal lakes and found that low
12		sampling coverage is more likely to lead to
13		underestimates of flux than overestimates."
14		Going down, it concludes: "More work is
15		needed to characterize sampling bias in other
16		systems, and to understand how sampling bias
17		scales up."
18		Ms. Frayer, have you ever personally
19		studied any greenhouse gas emissions, other
20		than methane, you said you have not studied
21		ebullitive methane emissions. Have you studied
22		other greenhouse gas emissions?
23	Α.	My work, with respect to greenhouse gas
24		emissions, is specifically limited on
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		greenhouse gas emissions or equivalents for the
2		power sector. So, I don't believe I can say
3		that I've studied all of the elements that are
4		being discussed here.
5	Q.	My question is not so much whether you've
6		studied all of them, but whether you've studied
7		any of them? Have you ever studied any
8		greenhouse gas emissions?
9	Α.	My modeling allows me to document the changes
10		in greenhouse gas emissions from power plants.
11		So, again, that's my response,
12	Q.	Okay.
13	Α.	with respect to power plants.
14	Q.	I don't think it's a response to my question,
15		though. My question was "have you studied
16		greenhouse gas emissions?"
17	Α.	What do you mean by "studied" them?
18	Q.	In the sense that this article studies them, in
19		the sense that a scientific analysis would
20		study greenhouse gas emissions.
21	Α.	I don't go out into the field and measure
22		greenhouse gases, which is what I believe the
23		sampling discussion in this in this
24		highlighted package is talking about.

Q. 1 And, in fact, you've testified that you have no 2 credentials in environmental science. So, 3 having no credentials in environmental science, 4 and having never studied greenhouse gas 5 emissions, do you believe you are qualified to 6 speak to the levels of uncertainty associated 7 with emissions, such as the ones described here, from hydroelectric reservoirs? 8 9 I believe that, with respect to the analysis I Α. 10 have performed in this report, which is focused 11 on greenhouse gas emissions avoided in New 12 England, by the import of energy, that has a 13 different greenhouse gas emissions profile than 14 that of the power plants that operate in New 15 England that would be displaced, I have -- I am 16 qualified to do that, because it's something 17 that we do in the ordinary course of our 18 modeling and analysis. 19 In terms of fieldwork, where you actually 20 go out and measure various gases? No. I don't 21 have fieldwork under my belt. 22 Thank you. Again, I think you've answered two Q.

23 questions other than the ones that I asked. I
24 asked "do you believe that you are qualified to
{SEC 2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		speak to the levels of uncertainty associated
2		with emissions such as the ones described in
3		this article?"
4	Α.	And I apologize I didn't answer, but I'm not
5		sure I understand. Am I qualified to speak to
6		uncertainty in measurement? I have just said
7		I'm not a field scientist. I don't go out and
8		measure greenhouse the actual greenhouse gas
9		emissions as described in this paragraph.
10	Q.	So, the question is, the uncertainty of
11		emissions? The levels of emissions?
12	Α.	And I'm not understanding how you're question
13		relates to my work?
14	Q.	I understand you have models in the past. But
15		my question goes towards the underlying data of
16		your modeling. Are you professionally
17		competent to speak to the level of uncertainty
18		in the underlying data that you use for your
19		modeling?
20	Α.	The underlying data is the data that I've
21		compiled from primary sources. So, if you're
22		questioning those primary sources, let's talk
23		to those.
24	Q.	Thank you.

i i		
1	Α.	Again, I didn't do any fieldwork to go out in
2		New England or elsewhere as
3	Q.	Thank you.
4	Α.	as a field scientist.
5	Q.	Ms. Frayer, this next document, has it appeared
6		on your screen?
7	Α.	Yes. I see a document.
8	Q.	This document is marked as Exhibit NGO 19. It
9		is a data response filed by the Applicant. The
10		subject is "Greenhouse Gas Emissions". Is this
11		data response familiar to you? It's a response
12		to NGO 1-3.
13	Α.	Yes.
14	Q.	Were you involved in the preparation of this
15		data response?
16	Α.	Yes.
17	Q.	The first line of this data response references
18		a scientific article by C.R. Teodoru, upon
19		which LEI apparently relied in developing its
20		carbon reduction estimates.
21	Α.	That's correct.
22	Q.	I believe that analysis by Christian Teodoru
23		was one of the studies that was assessed by the
24		BioScience article we just discussed. Lacking
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

1		[WIINESS: Flayer]
1		any training in environmental science or
2		professional qualifications in that field, it
3		would be difficult, if not possible, for you to
4		provide a professional assessment of the
5		accuracy or degree of uncertainty associated
6		with the Teodoru study, would it not?
7	Α.	I would agree, generally, that I didn't assess
8		the Teodoru study, I just relied on it, because
9		it was speaking, in fact, to specific
10		conditions relevant to the system in Quebec,
11		Hydro-Quebec. And it was a peer-reviewed
12		study.
13	Q.	Thank you.
14	Α.	So, I relied on those general credentials.
15	Q.	Moving on, Ms. Frayer, this is a PSNH press
16		release from October 12th, 2010. It has been
17		premarked as "Exhibit NGO 28". Actually, I'm
18		not seeing a premarking here, but, in any
19		event, it will be marked "NGO 28", and it will
20		be made available to the parties.
21		Do you have it in front of you now?
22	Α.	Yes. I do see the first page of that article.
23	Q.	Thank you. And, at the bottom of Page 1, there
24		is a section entitled "Environmental Benefits".
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		Do you see that?
2	Α.	Yes. I do see that section.
3	Q.	Okay. The second sentence of that paragraph
4		states: "The Northern Pass Project is expected
5		to reduce regional carbon dioxide emissions by
6		up to 5 million tons per year."
7		Now, the carbon reduction figures you've
8		put forward in this proceeding are much lower
9		than that "5 million ton" figure.
10		Specifically, I believe you have put forward
11		"3.3 million tons" in the October 2015 Report
12		and "3.2 million tons" in your March 2017
13		Report. Do I have those numbers correct?
14	Α.	I believe those are my numbers, yes.
15	Q.	Okay. Were you involved in developing PSNH's
16		carbon reduction estimate of "5 million tons
17		per year"?
18	Α.	No. This doesn't look familiar to me.
19	Q.	Now, since 2010, the capacity of the Project
20		has been reduced by 110 megawatts. But that
21		change is not proportional to the significant
22		drop in the claimed carbon reduction estimates
23		from this press release, is it?
24	Α.	No. But now that you just hinted to me, I
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		forgot to look at the date. The date is
2		probably responsible for that difference.
3	Q.	So, we did look at the date earlier, and it is
4		a
5	Α.	2010 press release.
6	Q.	That's correct. It's a 2010 press release.
7	Α.	And that is probably what's driving the
8		difference. In 2010, if we had studied this
9		Project, we would have expected also at that
10		time much bigger carbon emissions reductions,
11		because at that time we had a different carbon
12		emissions footprint in New England. But, in
13		part to the success of the RGGI program,
14		R-G-G-I, the carbon emissions footprint of the
15		region as a whole has come down. And,
16		therefore, the carbon emissions avoided by a
17		project like Northern Pass will be lower, and,
18		of course, the Project design has changed, so
19		the energy flows are lower as well.
20	Q.	So, we have talked a lot so far in your
21		testimony about the uncertainty of the capacity
22		markets, in particular. But here it seems
23		there's a significant degree of uncertainty
24		associated with the claimed carbon reduction
	\ S E C	2015-061 [Dav 15/Morning ONLY-REDACTED] (06-13-17)

		[WITNESS: Frayer]
1		benefits as well, given that the numbers PSNH
2		have done been putting out have been
3		inaccurate?
4	Α.	I don't think they were inaccurate. I think
5		that the conditions have evolved from 2010.
6	Q.	As projections, they were inaccurate, is that
7		not true? They were inaccurate projections?
8	Α.	They were accurate projections at the time the
9		projections were made, and it
10	Q.	I'm sorry, but is that a meaningful statement?
11	Α.	For me, it is, because I am a forecaster. And,
12		then, since then, as we discussed earlier with
13		other parties, market conditions have evolved
14		and the projection has been revised.
15	Q.	Next, I'd like to turn to Exhibit SPNHF 18,
16		which Mr. Reimers raised with you earlier, I
17		believe. This is the <u>Union Leader</u> op-ed that
18		you published in 2011. I believe you also
19		published a <u>Keene Sentinel</u> op-ed at the same
20		time, in 2011. Here you advertise that the
21		Northern Pass Project, if approved, would
22		reduce carbon emissions equivalent to "nearly
23		900,000 cars annually". Do you see that?
24	Α.	I see that statement, yes.

	-	[WIINESS: Frayer]
1	Q.	And the October 16th, 2015 written testimony of
2		Mr. Quinlan claims a reduction of "690,000
3		cars", which is the equivalent, I believe, of
4		the 3.3 million tons of emissions reductions
5		that you projected at that time, in 2015. Now,
6		again, that delta doesn't come the trim in
7		the Project size, the 110 megawatts, also
8		doesn't explain that differential, does it?
9	Α.	The change in the Project size explains a good
10		portion of the differential. And, again, the
11		timing, this is a 2011 article. The carbon
12		footprint excuse me, the carbon footprint of
13		the New England system has changed, and fairly
14		effectively, and that's responsible also for
15		the update, in our original Report, relative to
16		the figures back from May 2011.
17	Q.	And, Ms. Frayer, the carbon footprint of the
18		New England region is likely to continue to
19		change, isn't it?
20	Α.	Yes, I would agree. And we have captured that
21		in my analysis, because that's the beauty of
22		doing a projection. I'm not just taking an
23		historical number and assuming it's static.
24	Q.	So, you believe that the projections you made

		[WITNESS: Frayer]
1		several years ago were inaccurate, but that
2		your current projections will be accurate. Is
3		that your testimony?
4	Α.	I believe that certain conditions have changed
5		from 2011, and they have been updated for in
6		the 2015 and in the Updated Analysis as well,
7		to the latest information. And they're not, in
8		my opinion, going to change. They are
9		capturing the latest information available.
10		And, from a forecasting perspective, I believe
11		they're accurate.
12	Q.	Ms. Frayer, if, as you have done, you assume
13		that Northern Pass will rely solely on
14		generation resources within Hydro-Quebec's
15		existing portfolio, although, as we know, La
16		Romaine is not complete yet. But, in any
17		event, if we make that assumption, then the
18		power for Northern Pass will be subtracted from
19		someone else's existing power supply. In fact,
20		I think you may have referenced that phenomenon
21		in your testimony last week. Have you factored
22		in the greenhouse gas displacement associated
23		with that substitution of resources?
24	Α.	I have not directly factored in. But, if we
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WIINESS: Frayer]
1		look at Ontario or western New York, which is
2		the alternative destination for that power,
3		their carbon footprints, when this power would
4		be otherwise flowing off peak, is minimal,
5		because they're using nuclear and hydro during
6		those hours.
7		So, I haven't done the number-crunching.
8		But I've thought about it, and I don't think
9		it it's de minimus. It's not going to
10		impact the conclusions I've made.
11	Q.	You've thought about it. Okay. Moving on to
12		the energy markets, Ms. Frayer. You've
13		testified that you're aware of the
14		Massachusetts RFP, or requests for proposals,
15		that was issued on March 31st, 2017, by Unitil,
16		National Grid, and Eversource, and that it
17		solicits, I believe, 9,450,000 megawatt-hours
18		of energy supply, including bids for
19		incremental hydroelectric generation, and new
20		Class I-eligible renewable energy supply. Is
21		that your understanding?
22	Α.	Yes.
23	Q.	And Mr. Pappas discussed with you last week
24		that there are a number of other projects,

		[WITNESS: Frayer]
1		similar to the Northern Pass Project, that
2		intend to participate in the RFP. Those
3		projects include the TDI Clean Power Link and
4		Granite State Power Link Projects. Do you
5		recall that conversation with Mr. Pappas?
6	Α.	I recall the conversation, and I think it was
7		Mr. Pappas's assertion that those other
8		projects will participate.
9	Q.	I believe, if I'm correct, and you may recall
10		better if I remind you, that, at least for the
11		Granite State Power Link, he provided a
12		statement by Granite State Power Link,
13		asserting that they do intend to participate.
14		Do you recall that?
15	Α.	Well, yes, I believe Mr. Pappas provided an
16		exhibit that said that. I don't have any
17		personal knowledge of the intentions of TDI,
18		with New England Clean Power Link, or with
19		National Grid with respect to their project.
20	Q.	Okay, apart from that. Are you also aware that
21		this spring Hydro-Quebec requested two
22		interconnection studies to be performed? Let
23		me see if I can draw up the next exhibit. I'm
24		drawing up on the monitor Exhibit NGO 30. It

		[WITNESS: Frayer]
1		will be made available to all parties, if it
2		hasn't already been. It's a Hydro-Quebec press
3		release dated April 12, 2017.
4	Α.	Yes. I am aware of this press release.
5	Q.	Okay. There are two highlighted passages in
6		the press release. I understand it's hard to
7		read when it's too small. Do you think you're
8		capable of reading those two highlighted
9		passages?
10	Α.	I'm happy to try.
11	Q.	Okay. Would you mind reading them aloud
12		please.
13	Α.	So, the first highlighted passage states:
14		"Today, HQ will submit requests for the study
15		of additional transmission interconnections
16		with Maine and Vermont."
17		The second highlighted passage a few
18		paragraphs down reads: "Beyond NPT, there are
19		other possible options for increasing exports
20		to New England. Once the preliminary studies
21		for Vermont and Maine have been completed,
22		Hydro-Quebec will further evaluate the merits
23		of these options. If a project is launched,
24		Hydro-Quebec will keep all concerned parties
	{ S F C	$2015 - 06$ [Day 15/Morning ONLY-REDACTED] $\{06 - 13 - 17\}$

		[WITNESS: Frayer]
1		informed and initiate the various public
2		consultations as per our regular project
3		development process."
4	Q.	Thank you. So, am I correct to understand that
5		these two requested interconnection studies are
6		a step in the process whereby Hydro-Quebec can
7		potentially bring additional hydroelectric
8		power into the U.S. through avenues other than
9		the Northern Pass Project?
10	Α.	I think that's a reasonable summary.
11	Q.	Ms. Frayer, you testified earlier, when you
12		were speaking with Mr. Pappas, that given the
13		goals of the Massachusetts RFP, you believe
14		multiple projects, similar to the Northern Pass
15		Project, will receive contracts. Does your
16		Base Case assume in any way that there will be
17		other projects completed that are similar to
18		the Northern Pass Project?
19	Α.	No, it does not. And, to be clear, what I
20		said, with respect to that question about the
21		Massachusetts RFP, would be that over time the
22		Massachusetts RFP, because it is seeking to
23		meet policy goals for the state with respect to
24		greenhouse gas emissions reductions, those
		2015 06) [Day 15/Marning ONLY DEDACTED] (06 12 17)

		[WITNESS: Frayer]
1		goals are substantive. And, to meet those,
2		multiple infrastructure projects, larger
3		volumes of clean energy imports are needed than
4		can be supplied by any single project currently
5		proposed.
6	Q.	But, to confirm, you did testify that, given
7		the goals of the Massachusetts RFP, you believe
8		multiple projects, similar to the Northern Pass
9		Project, will receive contracts. Is that
10		correct?
11	Α.	Could be awarded contracts, if the RFP is
12		successful in meeting the policy goals.
13	Q.	Have you conducted any energy economic studies
14		that include an analysis of the potential
15		benefits of the Northern Pass Project, if there
16		are one or more similar projects also
17		participating in the markets?
18	Α.	No. I have not done such an analysis in this
19		Project.
20	Q.	In light of your testimony stating that you
21		believe there will be more than one contract,
22		isn't that a major omission in your modeling?
23	Α.	No, I don't feel it is. I think the
24		Massachusetts RFP is proceeding, but it's very

		[WITNESS: Frayer]
1		uncertain as to the timeline, the types of
2		resources. And I think it would have been
3		speculative of me to include that in my Base
4		Case. I think, with time, as we see how the
5		RFP emerges, and, in fact, it might not be a
6		single RFP, there might be multiple rounds of
7		procurement, I think at that point, as
8		information crystallizes, we would definitely
9		include it as part our baseline.
10	Q.	I appreciate that there may be more than one
11		RFP in the future. But you have not factored
12		in the implications of the current RFP, which
13		is soliciting specific types of energy
14		resources. Is that not correct?
15	Α.	I have not factored in the current RFP that
16		will begin later this month no, next month.
17	Q.	The bids are due next month, correct?
18	Α.	Yes. And, then, it will take a long a
19		fairly long time for a decision to be made, I
20		think.
21	Q.	Of course. But that is what we're talking
22		about. Northern Pass intends to submit a bid
23		as part of its project development, correct?
24	Α.	I'm not arguing with the intentions of Northern
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

		[WITNESS: Frayer]
1		Pass to potentially submit a bid.
2	Q.	You previously indicated in a technical session
3		that the marginal wholesale market impact of
4		the entry of a project such as Northern Pass
5		would decrease with the addition of similar
6		entrants. In other words, the first such
7		project to the finish line would appear to have
8		the biggest impact, whereas the second or third
9		project would appear to have diminishing
10		returns, as measured by the delta of change in
11		the capacity market?
12	Α.	I don't actually remember saying exactly that.
13		I remember discussing the potential for
14		diminishing returns. But I don't remember
15		making a definitive statement that there would
16		be diminishing returns.
17	Q.	Regardless of the wording, you believe there is
18		the potential for diminishing returns with the
19		entry of additional participants, is that
20		correct?
21	Α.	Down the road, potentially. I don't foresee it
22		at this time. But, down the road, yes.
23	Q.	Did we not just establish that you do believe
24		multiple contracts will be issued in connection
	(SEC	$2015 - 06$ [Day 15/Morning ONLY-REDACTED] $\{06 - 13 - 17\}$

		[WITNESS: Frayer]
1		with the Massachusetts RFP?
2	Α.	But it depends on the timing. For example, the
3		policy goals for Massachusetts go out to 2050.
4		So, if the next contract cycle is done
5		thoughtfully, I don't think there's any
6		implications on the market benefits that I have
7		demonstrated in my Report.
8	Q.	Bidders in the Massachusetts RFP are required
9		to commit to bringing their projects on line by
10		a certain date. Do you know what that date is?
11	Α.	For this RFP, I do believe there's a date. I
12		don't recall what it is.
13	Q.	Would you accept subject to check it's 2020?
14		That would be consistent with Northern Pass's
15		intent, is it not?
16	Α.	Subject to check, I will accept that. I don't
17		recall what the specific conditions are around
18		that date.
19	Q.	That's fine. Are you concerned that, if
20		Northern Pass is not the first similar project
21		to the finish line, in terms of entering the
22		capacity market, your projection of benefits
23		will be grossly inaccurate?
24	Α.	No. I'm not concerned about that.

	1	
1	Q.	Ms. Frayer, Mr. Bowes filed supplemental
2		testimony dated March 24th, 2017 in this
3		proceeding. I believe it was referenced
4		earlier today, but let me draw up a page from
5		that testimony. Do you recognize this
6		testimony?
7	Α.	I don't see it yet. Sorry.
8		MS. BIRCHARD: I think we might have
9		to reconnect the Apple Play. Is it okay.
10		Maybe it's just a delay. Let's try Okay.
11		There we go. Thank you for your patience.
12	BY M	S. BIRCHARD:
13	Q.	It should be appearing in front of you. Do you
14		see Applicant's Exhibit 10 here?
15	Α.	I do.
16		MR. IACOPINO: Can you make that
17		bigger?
18	BY M	S. BIRCHARD:
19	Q.	On the bottom of Page 2 and to Page 3,
20		Mr. Bowes describes a series of changes to the
21		Project and to the energy environment that, in
22		his view, threaten to make the Project more
23		marginal economically. You looked at part of
24		this I think with Mr. Cote earlier.

1 Toward the end of that big paragraph, on 2 Page 3, at Line 13, Mr. Bowes says: "The 3 wholesale energy price expected when NPT enters service will be about 50 percent of that which 4 5 prevailed when HQ made its initial investment 6 decision; HQ will be able to cover 10 percent" 7 -- "deliver 10 percent less energy than it expected; and the U.S. transmission cost of 8 9 those deliveries will have increased by about 10 50 percent. At approximately \$40 per 11 megawatt-hour, energy revenues HQ receives from 12 deliveries over the line will not cover its 13 cost of NPT's revenue requirement, which HQ 14 would be required to pay regardless of the 15 revenues it earns from sales over the line." 16 And, then, I've underlined: "While HQ

17 would seek to cover the shortfall with other 18 sources of revenue, such as participation in 19 the Forward Capacity Market, it would face a 20 more significant risk of loss." Concluding, 21 Mr. Bowes says: "Given these project and 22 market developments, even with no further 23 project cost increases, NPT and HQ need to 24 explore new market opportunities, which

		[WITNESS: Frayer]
1		necessarily requires a cost competitive
2		profile."
3		Do you see those passages, Ms. Frayer?
4	Α.	I do.
5	Q.	When Mr. Bowes indicates that "the Applicants
6		need to explore new market opportunities",
7		that's a quote, is it likely that Mr. Bowes is
8		talking about, among other things, bidding into
9		the Massachusetts RFP that is pending?
10		MR. NEEDLEMAN: Before she answers
11		that, could we make sure that she has the
12		opportunity to see the previous page, so she
13		understands the context of this whole answer?
14	BY M	S. BIRCHARD:
15	Q.	Ms. Frayer, would you like me to scroll back or
16		do you have that page in your paper handouts?
17	Α.	I don't. I've actually never reviewed this
18		testimony in its entirety. So, it would be
19		helpful.
20	Q.	Is this adequate? Can you see the page?
21	Α.	Yes. I see the original question, yes, now.
22		So, can you repeat your question again, Ms.
23		Birchard?
24	Q.	Sure. When Mr. Bowes says "given these project
	{SEC	2015-06}[Dav 15/Morning ONLY-REDACTED]{06-13-17}

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[WITNESS: Frayer]

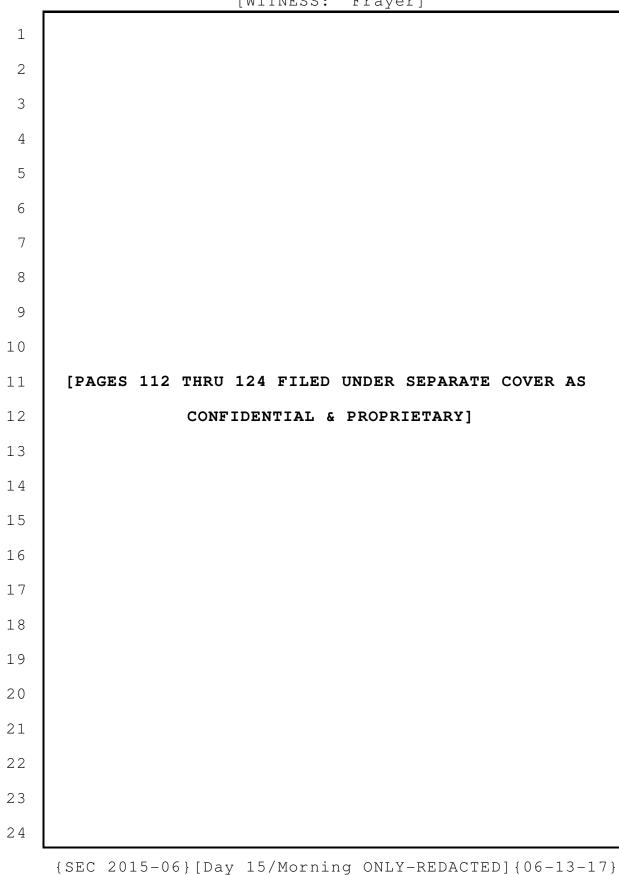
		[WITNESS: Frayer]
1		and market developments, even with no further
2		project cost increases" "given these project
3		and market developments, even with no
4		further"
5		CHAIRMAN HONIGBERG: Slow down. Slow
6		down.
7	BY M	S. BIRCHARD:
8	Q.	"project cost increases, NPT and HQ need to
9		explore new market opportunities, which
10		necessarily requires a cost competitive
11		profile." And I think the context is whether
12		or not to further underground. But, in any
13		event, when Mr. Bowes indicates that "the
14		Applicants need to explore new market
15		opportunities", it's likely that Mr. Bowes is
16		talking about, among other things, bidding into
17		the Massachusetts RFP that is pending, correct?
18	Α.	I don't know. I can't say definitively that
19		was on his mind, that was his intent with those
20		words.
21	Q.	And would the Massachusetts RFP match with
22		those words, in your opinion? Is it a "new
23		market opportunity"
24	Α.	Well,

1	Q.	"for which cost-competitiveness" or "a cost
2		competitive profile would be advantageous"?
3	Α.	I'm not sure that's what he's referring to.
4		Given this discussion is about the cost of
5		burial, perhaps he's talking about other ways
6		to build and install the Project. I don't
7		know.
8	Q.	Okay. That's fine. You know, I believe
9		Mr. Bowes has already testified on this on the
10		stand as well. So, moving on. And I believe
11		he did confirm that the Massachusetts RFP is
12		one of the factors. But moving on.
13		In contrast to Mr. Bowes's concerns about
14		challenges that the Project faces, and what
15		Mr. Bowes refers to as "significant risk of
16		loss" associated with the capacity markets,
17		your Rebuttal Report, dated April 17th, 2017,
18		says, on Page 11, that "Interveners' concerns
19		as to the magnitude of the capacity market
20		benefits of Northern Pass are baseless."
21		This is the heading to Section 1.3, on
22		Page 11, but I assume you're familiar with your
23		own testimony.
24		On Page 12, you say "The concerns raised
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

1by Mr. Fowler and The Brattle Group were the2result of a lack of serious analysis". Also,3on Page 12, you assert that "FCA revenues for4HQP", Hydro-Quebec Production, "far outweigh5risks associated with CPP", Capacity6Performance Payments.7My question is, do you disagree with8Mr. Bowes's assessment that there is9"significant risk or uncertainty associated10with the capacity markets"?11A. Again, I can't speak to what Mr. Bowes said in12his supplemental testimony and what he intended13that statement to mean. But I can speak to my14analysis. And I believe that the risks for15capacity market, as I have actually17demonstrated numerically in my supplemental,18are far less than the opportunity for revenues.19Q. And do you believe there is significant risk or20uncertainty associated with the capacity21markets? Do you advise your clients that there22is significant risk or uncertainty associated23with the capacity markets and the potential24benefits?			[WITNESS: Frayer]
 on Page 12, you assert that "FCA revenues for HQP", Hydro-Quebec Production, "far outweigh risks associated with CPP", Capacity Performance Payments. My question is, do you disagree with Mr. Bowes's assessment that there is "significant risk or uncertainty associated with the capacity markets"? A. Again, I can't speak to what Mr. Bowes said in his supplemental testimony and what he intended that statement to mean. But I can speak to my analysis. And I believe that the risks for capacity performance in the ISO-New England capacity market, as I have actually demonstrated numerically in my supplemental, are far less than the opportunity for revenues. Q. And do you believe there is significant risk or uncertainty associated with the capacity markets? Do you advise your clients that there is significant risk or uncertainty associated with the capacity markets and the potential 	1		by Mr. Fowler and The Brattle Group were the
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 8 Mr. Bowes's assessment that there is 9 10 10 11 12 11 12 12 14 16 17 18 18 19 19 10 10 10 11 12 13 14 15 15 16 17 18 18 19 19 10 10 11 12 13 14 15 15 16 17 18 18 19 19 10 10 11 12 14 15 15 16 17 18 18 19 10 10 11 12 12 14 15 15 16 17 17 18 19 10 11 12 12 14 15 15 16 17 17 18 19 19 10 10 10 11 12 14 15 15 16 17 18 18 19 19 10 10 10 10 10 10 11 12 12 14 15 15 16 17 18 18 19 19 10 10 10 10 10 10 11 12 12 14 15 15 16 17 18 19 19 10 <l< td=""><td>6</td><td></td><td>Performance Payments.</td></l<>	6		Performance Payments.
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19 Q. And do you believe there is significant risk or 20 uncertainty associated with the capacity 21 markets? Do you advise your clients that there 22 is significant risk or uncertainty associated 23 with the capacity markets and the potential	17		demonstrated numerically in my supplemental,
20 uncertainty associated with the capacity 21 markets? Do you advise your clients that there 22 is significant risk or uncertainty associated 23 with the capacity markets and the potential	18		are far less than the opportunity for revenues.
21 markets? Do you advise your clients that there 22 is significant risk or uncertainty associated 23 with the capacity markets and the potential	19	Q.	And do you believe there is significant risk or
is significant risk or uncertainty associated with the capacity markets and the potential	20		uncertainty associated with the capacity
23 with the capacity markets and the potential	21		markets? Do you advise your clients that there
	22		is significant risk or uncertainty associated
24 benefits?	23		with the capacity markets and the potential
	24		benefits?

1	Α.	I always advise my clients to take a look at
2		the risks that they face in taking on an
3		obligation. But the risks are need to be
4		weighed against the benefits. And it's that
5		analysis, that balance of "what do I seek as an
6		opportunity versus what do I put at risk by
7		seeking that opportunity" that I advise my
8		clients focus on.
9	Q.	And, then, do you advise them to weigh their
10		own tolerance for risk?
11	Α.	Yes. I do think that different clients might
12		have different risk appetites.
13		MS. BIRCHARD: Thank you. Okay.
14		That concludes the public questions that I
15		have. I do have additional non-public
16		questions for Ms. Frayer.
17		CHAIRMAN HONIGBERG: All right. I
18		think it makes sense for you to continue with
19		that. So, we'll ask those who are not allowed
20		to see confidential information to leave, and
21		we'll ask that the speaker in the public area
22		be turned off.
23		Just for planning purposes,
24		Ms. Birchard, how long do you think you have in
	{SEC	2015-06}[Day 15/Morning ONLY-REDACTED]{06-13-17}

1	non-public?
2	MS. BIRCHARD: Not very long.
3	CHAIRMAN HONIGBERG: Which could mean
4	anything.
5	MS. BIRCHARD: Twenty minutes.
6	CHAIRMAN HONIGBERG: All right.
7	MS. BIRCHARD: Or thirty minutes.
8	CHAIRMAN HONIGBERG: All right. So,
9	it sounds like we'll get to the lunch break
10	that way.
11	And, so, I think, for planning
12	purposes, we should probably tell people to
13	come back around 1:30.
14	[End of public session for Day
15	15 Morning Session ONLY.
16	Pages 112 through 124 are
17	contained under separate cover
18	in the transcript designated as
19	DAY 15 Morning Session ONLY -
20	CONFIDENTIAL & PROPRIETARY.]
21	
22	
23	
24	



1	
2	CERTIFICATE
3	I, Steven. E. Patnaude, a Licensed Shorthand
4	Court Reporter, do hereby certify that the foregoing
5	is a true and accurate transcript of my stenographic
6	notes of these proceedings taken at the place and on
7	the date hereinbefore set forth, to the best of my
8	skill and ability under the conditions present at
9	the time.
10	I further certify that I am neither attorney or
11	counsel for, nor related to or employed by any of
12	the parties to the action; and further, that I am
13	not a relative or employee of any attorney or
14	counsel employed in this case, nor am I financially
15	interested in this action.
16	
17	
18	Licensed Court Reporter N.H. LCR No. 52
19	(RSA 310-A:173)
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