STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

October 26, 2015 - 9:04 a.m. Concord, New Hampshire ORIGINAL

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RE:DE 14-238 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE: Determination Regarding PSNH's Generation Assets. (Technical Session/Deposition of La Capra Associates Witnesses: Richard S. Hahn and Daniel Koehler)

APPEARANCES:

Reptg. Public Service Co. of New Hampshire, d/b/a Eversource Energy: Robert A. Bersak, Esq. Matthew J. Fossum. Esq.

Reptg. the City of Berlin and the Town of Gorham:

Eric Maher, Esq. (Donahue, Tucker)

Reptg. the Office of Energy & Planning: Christopher G. Aslin, Esq., (NH DOJ) Meredith A. Hatfield, Director

Reptg. New England Power Generators Assn: Carol Holahan, Esq. James Monahan

COURT REPORTER: SUSAN J. ROBIDAS, N.H. LCR NO. 44

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1 **APPEARANCES:** (Continued) 2 Reptg. Conservation Law Foundation: Ivy L. Frignoca, Esq. 3 Reptg. TransCanada: 4 Douglas M. Patch, Esq. (Orr & Reno) 5 Reptg. Granite State Hydropower Assoc .: Richard Norman 6 Reptg. Terry Cronin, Intervenor: 7 Arthur B. Cunningham, Esq. 8 Pentti Aalto, pro se Reptg. PUC Staff Advocates 9 (Settling Staff): 10 F. Anne Ross, Esq. 11 Reptg. Residential Ratepayers: Susan Chamberlin, Esq. James Brennan 12 Office of Consumer Advocate 13 Reptg. PUC Non-Advocate Staff: 14 Michael J. Sheehan, Esq. Leszek Stachow, Asst. Dir./Electric Div. 15 Jay Dudley, Electric Division Richard Chagnon, Electric Division 16 17 18 19 20 21 22 23 24 $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

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4 1 PROCEEDINGS Ladies and 2 MR. SPEIDEL: gentlemen, we're about to begin. 3 I would request that we open the record now, please. 4 Staff would like to welcome the 5 parties to today's technical session in Docket 6 No. DE 14-238 regarding the Public Service 7 Company of New Hampshire, doing business as 8 Eversource, Asset Determination docket. 9 We would like to take a guick roll call of 10 11 everyone in the hearing room today, and then we'll open the floor to any statements 12 regarding document production or other 13 14 ancillary matters. 15 I'm Alexander Speidel. I am a 16 Staff Attorney/Hearing Examiner representing 17 Non-Advocate Staff. MR. DUDLEY: Jay Dudley with the 18 Public Utilities Commission. 19 20 MR. CHAGNON: Rick Chagnon, PUC. 21 MR. SHEEHAN: Mike Sheehan 22 Non-Advocate Staff. 23 MR. CANNATA: Mike Cannata, IAI, Non-Advocate Staff. 24 $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

5 MR. MURPHY: Dean Murphy, 1 principal with the Brattle Group. 2 MR. STACHOW: Leszek Stachow, 3 New Hampshire PUC. 4 (Ms. Chamberlin joins proceedings.) 5 MR. SPEIDEL: We're taking roll, 6 7 And if everyone could please speak into Susan. the microphones as distinctly as possible. 8 MS. CHAMBERLIN: Is it my turn? 9 MR. SPEIDEL: 10 Yes. 11 MS. CHAMBERLIN: Susan Chamberlain, Consumer Advocate. With me today 12 is Jim Brennan. 13 14 MR. AALTO: Pentti Aalto, 15 representing myself. 16 MS. FRIGNOCA: Ivy Frignoca, Conservation Law Foundation. 17 MR. CUNNINGHAM: Art Cunningham 18 19 for Terry Cronin. MR. ASLIN: Chris Aslin from the 20 A.G.'s office, on behalf of the Office of 21 22 Energy and Planning. With me is Meredith 23 Hatfield, Director of the Office of Energy and Planning, and Jim Letzelter from Liberty 24 {DE 14-238} (TECHNICAL SESSION) {10-26-15}

1 Consulting Group. MR. PATCH: Doug Patch from Orr 2 & Reno for TransCanada. 3 MS. HOLAHAN: Carol Holahan on 4 behalf of the New England Power Generators 5 Association. 6 7 MR. MAHER: Eric Maher, on behalf of the City of Berlin and Town of 8 Gorham. 9 10 MR. NORMAN: Richard Norman, 11 Granite State Hydropower Association. MR. MONAHAN: Jim Monahan for 12 13 the New England Power Generators Association. 14 MS. ROSS: Anne Ross for Advocate Staff. 15 16 MR. RICE: Brian Rice, 17 Eversource. MR. GOULDING: Chris Goulding, 18 19 Eversource. 20 MR. FOSSUM: Matt Fossum, 21 Eversource. 22 MS. LANDIS: Linda Landis, 23 Eversource. 24 MR. BERSAK: Bob Bersak, {DE 14-238} (TECHNICAL SESSION) {10-26-15}

7 1 Eversource. MR. CHUNG: Eric Chung from 2 3 Eversource. MR. SPEIDEL: And on the witness 4 5 stand we have ... MR. HAHN: Richard Hahn from La 6 7 Capra Associates. 8 MR. KOEHLER: Dan Koehler from La Capra Associates. 9 10 MR. SPEIDEL: Thank you very 11 much, all. I would now like to open the floor to the parties that would like to indicate 12 anything regarding document production or 13 14 ancillary matters. Advocate Staff would 15 MS. ROSS: 16 like to request that the 2014 report prepared 17 by La Capra Associates be admitted as an exhibit so that we may question La Capra on the 18 foundation work that formed the basis for 19 20 Staff's -- Advocate Staff's testimony, and 21 also, we assume, is the basis for the 2015 22 update. 23 MR. SPEIDEL: Is there any contemplation of a non-disclosure agreement 24 $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

being proffered to other parties, Ms. Ross? 1 Yes, there is. 2 MS. ROSS: Ι shared, I believe with Non-Advocate Staff last 3 week, a proposed modification to the 4 5 non-disclosure agreement that we've already signed with regard to the 2015 update that 6 merely inserts a couple of references to the 7 2014 report, which would allow us to use that 8 confidential 2014 report in this litigation. 9 And I have that with me in hard copy, so that 10 11 if it's agreeable to the La Capra witnesses and to the rest of the parties, we could have that 12 executed. I also have taken the liberty of 13 making copies of the 2014 report in its 14 unredacted form, which I would then be able to 15 16 distribute to the parties signing the 17 non-disclosure agreement for use in this 18 litigation. 19 MR. SPEIDEL: Thank you very 20 much. 21 To the La Capra witnesses: 22 Would you have any objection to examining this 23 non-disclosure agreement and executing it at the present time, or would you like to take 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

9 that under advisement? 1 2 MR. HAHN: May I ask a clarifying question first? 3 MR. SPEIDEL: Yes. 4 MR. HAHN: Reference was made to 5 the 2014 report. 6 There were actually two 7 documents provided by La Capra in 2014. One is entitled "PSNH Generation Asset and PPA 8 Valuation Report, and the second report is 9 entitled, "Northeast Market Model, 10 11 January 2014." Which of those reports do you contemplate making available, subject to the 12 non-disclosure agreement? 13 14 MS. ROSS: I had contemplated 15 the asset report, but not the background on the 16 model. I understand from reading your motion 17 for confidential treatment that the model is more sensitive because it gets into more of 18 19 your methodology behind your assessment. And 20 at this time I wasn't going to request 21 admission of the second report on the market 22 model that was also dated 2014. 23 MR. HAHN: That's correct. That 24 clarification is very helpful. I believe, {DE 14-238} (TECHNICAL SESSION) {10-26-15}

given that our 2015 update is based on that 1 first 2014 document, that it would be 2 appropriate to make it available, subject to 3 the non-disclosure agreement. Now, I'm not 4 5 sure exactly, you know, how that agreement was modified. But in principal, we have no issue 6 7 with providing that first report, the first 8 2014 report, to parties who have executed the non-disclosure agreement. 9 MS. ROSS: I can certainly make 10 11 it available now to Staff -- to Non-Advocate Staff, and I would hope they could review it on 12 your behalf. As I said, I believe I shared an 13 electronic version with them last week. 14 But I can make that available now. 15 MR. HAHN: I guess it's not 16 17 up -- I don't know if it's up to me to be asking questions at this point, but --18 MR. SPEIDEL: No, it's all 19 20 right. You may ask these questions. 21 MR. HAHN: Is this something we 22 could look at during a break in the proceeding? 23 MR. SPEIDEL: Yes, we may. Perhaps it might not be a bad idea to take a 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

10-minute recess to enable the La Capra 1 witnesses to examine the non-disclosure 2 agreement and to see if it meets their 3 standards, and then it would be proffered if, 4 at their election, to counter parties that wish 5 to execute it today. And in principle, Staff 6 does not object to the introduction of the 7 8 report, the 2014 report, as an exhibit; however, we want to make sure that the 9 10 non-disclosure agreement meets the standards 11 for La Capra's protection of this material as a matter of contractual law. Currently, there is 12 a pending motion for confidential treatment. 13 And under the Commission's confidential 14 15 treatment rules, during the pendency of the 16 ruling on the motion, under the provisions of 17 New Hampshire R.S.A. 91-A, this material is prevented from disclosure. However, if folks 18 receive this material through the 19 20 non-disclosure agreement, there still remains 21 an obligation to protect it from further onward 22 disclosure under the provisions of R.S.A. 91-A. 23 I hope that's understood. 24 (No verbal response)

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MR. SPEIDEL: Therefore, at the 1 present time we will have a recess until 9:30 2 so that the La Capra witnesses may review the 3 non-disclosure agreement and determine as to 4 5 whether it is appropriate for execution. Thank We will be off the record until 9:30. 6 you. 7 (Whereupon a brief recess was taken at 8 9:15 a.m. and the proceedings resumed at 9:30 a.m.) 9 MR. SPEIDEL: Okay, folks. 10 It's 11 9:30. I would ask that we open the record. Mr. Hahn, on behalf of La Capra, 12 could you state if the non-disclosure agreement 13 proffered by Ms. Ross is acceptable? 14 15 MR. HAHN: Yes, it is acceptable. 16 17 MR. SPEIDEL: Therefore, Ms. Ross, how would you like to handle the 18 distribution of the non-disclosure agreement? 19 I believe I've 20 MS. ROSS: 21 already given it to parties in the room. So I 22 would encourage people to go ahead and date it and sign at the end for the parties who are 23 going to have access, the receiving party line, 24

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and then we'll get it to Non-Advocate Staff. 1 2 MR. SPEIDEL: Very well. Could we have a quick roll of the parties that do 3 have the report in their possession at the 4 present time and those that do not have the 5 report in their possession at the present time? 6 7 Non-Advocate Staff has the report in its possession at the present time. 8 MS. ROSS: I have it. 9 MR. SPEIDEL: Advocate Staff has 10 11 it. Anyone else have it? MR. AALTO: Pentti Aalto. 12 MS. CHAMBERLIN: Oh, the report. 13 14 I thought you meant the confidential --15 MR. SPEIDEL: Oh, no, no, no, 16 not the non-disclosure agreement, the actual 17 report itself. So, Advocate and Non-Advocate 18 Staff have the report. Any other parties have 19 the report in their possession? MR. PATCH: Can I just clarify? 20 21 You mean the unredacted report? 22 MR. SPEIDEL: Yes. 23 MR. PATCH: TransCanada doesn't 24 have it, and we're not signing the $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1 non-disclosure. MR. SPEIDEL: Okay. 2 Which parties intend to sign the non-disclosure 3 agreement today? Could we please have a roll 4 5 of those? Speak into the microphone and state your parties, please. 6 7 MS. CHAMBERLIN: Consumer 8 Advocate will sign the confidentiality 9 agreement. 10 MS. FRIGNOCA: Conservation Law 11 Foundation will sign the confidentiality 12 agreement. 13 MR. AALTO: Pentti Aalto will 14 sign the agreement. 15 MR. MAHER: City of Berlin and 16 the Town of Gorham will sign the 17 confidentiality agreement. One point of clarification: 18 19 Will signing the confidentiality agreement allow for disclosure to consultants retained by 20 21 the parties, so long as that consultant signs 22 this confidentiality agreement? Yes? 23 MR. HAHN: Yes. 24 MR. MAHER: Thank you. $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

15 MR. NORMAN: Granite State --1 2 MS. HOLAHAN: New England --3 sorry. MR. SPEIDEL: One at a time, 4 5 folks, one at a time. MS. HOLAHAN: The New England 6 7 Power Generators Association will sign the 8 confidentiality agreement. Granite State will 9 MR. NORMAN: also sign. 10 11 MR. SPEIDEL: Will any other parties sign the confidentiality agreement? 12 MR. CUNNINGHAM: Terry Cronin 13 14 will not sign the confidentiality agreement. 15 MR. ASLIN: Office of Energy and 16 Planning will sign the confidentiality 17 agreement, although I would reserve our right, since we haven't seen the unredacted portion 18 19 yet, reserve the right to request additional information later. After we've seen the 20 21 unredacted report, we may reserve the right to 22 request additional information we deem 23 necessary and relevant to the docket. 24 The City of Berlin MR. MAHER: $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

and the Town of Gorham echoes the Office of 1 Consumer Advocate's [sic] stance. 2 MR. BERSAK: Alex, Eversource 3 has signed the agreement. 4 5 MR. SPEIDEL: Okay. Is that a full roll of all the parties who intend to sign 6 7 or have signed the agreement? MS. ROSS: Advocate Staff will 8 9 sign the agreement. MR. SPEIDEL: Very well. 10 Staff 11 takes no position regarding the assertion or preservation of rights by the third parties; 12 however, we do not object to the execution of 13 14 the non-disclosure agreements or the subsequent 15 distribution of the unredacted reports from 16 2014. Therefore, I would ask that Ms. Ross 17 handle the distribution of those reports at the 18 present time. Thank you. 19 MS. ROSS: Thank you. 20 (Ms. Ross distributes the unredacted 2014 21 La Capra report to parties having signed 22 non-disclosure agreement.) 23 MS. ROSS: If it would be possible later, we would probably like to have 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

copies just for the record, so that people who 1 2 signed have a copy of what they signed. With that, I will... 3 That would be MR. SPEIDEL: 4 fine. We can provide those copies. 5 I assume you all have 6 MS. ROSS: 7 this. I think we're finished with that piece. 8 MR. SPEIDEL: Very good. Are 9 there any other requests by parties related to document production or other matters, such as 10 11 procedural matters? The City of Berlin 12 MR. MAHER: and the Town of Gorham would like to state on 13 the record its prior request for document 14 15 production. 16 Thank you. MR. SPEIDEL: Is 17 there anything that the City of Berlin and the Town of Gorham would like to mention, in terms 18 of the ordering of questioning today? 19 20 MR. MAHER: Not in terms of 21 ordering -- well, with the exception, I 22 believe, my co-counsel, Chris Boldt, has requested that the City of Berlin be allowed to 23 go at the end of all other questioning, out of 24 $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

order of your proposal. 1 2 MR. SPEIDEL: Excellent. Is there any objection to that proposal by the 3 City of Berlin? 4 5 (No verbal response) MR. SPEIDEL: None heard. 6 Ι 7 would like to invite my co-counsel, Mike 8 Sheehan, to begin the questioning of the witnesses after they are sworn. 9 May the court reporter please 10 11 swear the witnesses. (WHEREUPON, RICHARD S. HAHN and DANIEL 12 KOEHLER were duly sworn and cautioned by 13 14 the Court Reporter.) 15 RICHARD S. HAHN, SWORN 16 DANIEL KOEHLER, SWORN 17 EXAMINATION BY MR. SHEEHAN: 18 19 Q. Good morning. Mr. Hahn, if you could give us a 20 brief description of your professional 21 background that brings you here today. 22 (Hahn) I'm a principal consultant with the firm Α. 23 of La Capra Associates, Incorporated. We are 24 an employee-owned consulting firm located in $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1		Boston; Portland, Maine; and Essex Junction,
2		Vermont. I've been with La Capra for 12 years,
3		in which time I have had numerous assignments
4		in the energy industry: Asset valuations,
5		utility planning, utility operations. Just
6		about every aspect. Engineering. I won't list
7		them all. But prior to that I worked for 30
8		years for Boston Edison Company in various
9		management functions, including all of those
10		above areas. I have a master's in electrical
11		engineering, power systems, from Northeastern
12		University, and an MBA from Boston College.
13		And I'm a registered professional engineer in
14		the Commonwealth of Massachusetts.
15	Q.	Mr. Koehler, the same, please.
16	Α.	(Koehler) My name is Dan Koehler. I'm a
17		consultant with La Capra Associates. I've been
18		with La Capra for five years, during which time
19		I've worked in all areas of the company's
20		business. Most relevant to the work here, I've
21		done a lot of work for our Market Analytics
22		Division in particular, running the AURORAxmp
23		Market Simulation model, as well as other
24		market forecasting. I've also been involved in
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1		several asset valuations, working with expert
2		witnesses at La Capra to develop asset
3		valuations of gas-fired generators,
4		hydroelectric assets and other generators,
5		mostly in New England.
6		My educational background, I have a
7		bachelor's in applied math from Yale
8		University, and I have a master's in public
9		policy and management from the University of
10		Southern Maine.
11	Q.	Thank you. And for both of you, feel free to
12		answer the questions as appropriate between the
13		two of you. I assume some will be better for
14		one than the other, and I can leave it to you
15		to decide those. And second, with regard to
16		confidentiality, since not everyone in the room
17		has signed the NDA, I would appreciate, if we
18		get to areas that are getting close, that we
19		try our best to answer questions without
20		getting into confidential matters. But
21		certainly if we have to, we will cross that
22		bridge when we get there, as far as having to
23		excuse people for those particular answers.
24		But we'll try our best not to have to go there.
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1		Has La Capra filed any testimony in this
2		docket, 14-238?
3	A.	(Hahn) No.
4	Q.	Did La Capra file testimony in the sister
5		docket, 11-250, which was the so-called
6		"Scrubber" docket?
7	A.	(Hahn) No, we did not file testimony.
8	Q.	And in the docket that produced the reports
9		that we'll be talking about this morning, which
10		was 13-020, you filed reports. Was there any
11		testimony associated with those reports that
12		you recall?
13	A.	(Hahn) I don't believe so, no.
14	Q.	Okay. La Capra did prepare a and as you
15		just said before you went we started this
16		session, that you prepared two reports in 2014:
17		A valuation report and a second one called
18		"Market Analysis"; is that correct?
19	A.	(Hahn) Yes. The second report was the
20		Northeast Market Model. But yes, you're
21		correct, there are two reports.
22	Q.	And if you could just repeat for us the title
23		of the valuation report which is the one that
24		was just the subject of the NDA and distributed
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1		to some of the parties in this room?
2	A.	(Hahn) Sure. It's "PSNH Generation Asset and
3		PPA Valuation Report," dated March 31st, 2014.
4	Q.	And that report does a lot. But at the end, it
5		comes to an opinion on the valuation of the
6		PSNH assets as of that date; is that correct?
7	A.	(Hahn) That's correct.
8	Q.	And that value, total value was what? Two
9		hundred and some million dollars; correct?
10	A.	(Hahn) Two hundred and twenty-five million
11		dollars.
12	Q.	And that value is comprised of different values
13		for the different PSNH generation assets; is
14		that correct?
15	A.	(Hahn) Yes. Each asset was valued separately
16		by generating station. So, Merrimack Station
17		was valued as one asset, even though there's
18		multiple generating units there.
19	Q.	I'm going to refer to that document as "the
20		2014 La Capra Report," okay.
21	A.	(Hahn) Fine, sir.
22	Q.	There was another report filed in the same
23		docket, 13-020, about the same time. That was
24		a report prepared by Commission Staff. Do you
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1		recall that?
2	Α.	(Hahn) I'm aware that Commission Staff filed a
3		report on April 1st, 2014, if that's the
4		document you're referring to.
5	Q.	Correct. And I believe you have a copy of it
6		in front of you. At the top of the page is
7		listed IR 13-020; is that correct?
8	Α.	(Hahn) That is correct, sir.
9	Q.	If you could read for us the title of that
10		report.
11	Α.	(Hahn) "Public Service of New Hampshire (PSNH)
12		Preliminary Status Report Addressing the
13		Economic Interest of PSNH's Retail Customers As
14		It Relates to the Potential Divestiture of
15		PSNH's Generating Plants." That's dated
16		April 1st, 2014.
17	Q.	And that cover sheet indicates who prepared
18		that report; is that correct?
19	Α.	(Hahn) Yes.
20	Q.	And that was who?
21	Α.	(Hahn) Staff of the New Hampshire Public
22		Utilities Commission.
23	Q.	And that cover sheet indicates what documents
24		were filed with that report; is that correct?
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1	Α.	(Hahn) Well, the title page references,
2		"Accompanied By Detailed Valuation Analysis
3		Prepared by La Capra Associates and the ESS
4		Group."
5	Q.	And as you just said, this document is dated
6		April 1, the day after the report that you
7		prepared; is that correct?
8	A.	(Hahn) That is correct.
9	Q.	At the time that the assuming for argument's
10		sake that this report was filed April 1, as of
11		April 1, 2014, had La Capra reviewed the Staff
12		report?
13	A.	(Hahn) We did not review a prior version of
14		this report, to the best of my recollection.
15		We did provide Staff input information that was
16		taken from our 2014 La Capra report that Staff
17		used in producing this report, but we did not
18		review the report.
19	Q.	I'm going to ask you to turn to Page 3 of the
20		Staff report. And there's a chart on Page 3
21		titled, "Forecast of Retail Default Service
22		Rates." Do you see that?
23	Α.	(Hahn) Yes.
24	Q.	Did you prepare that table, La Capra?
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1	Α.	(Hahn) No, that table was prepared by Staff.
2	Q.	And did you have any
3	A.	(Hahn) Actually, when you say "table," you're
4		talking about the graph?
5	Q.	Correct.
6	А.	(Hahn) Okay. Yes, that's Staff. That graph
7		was prepared by Staff.
8	Q.	And other than perhaps providing Staff some
9		information, did you have any other involvement
10		in the preparation of that graph on Page 3?
11	A.	(Hahn) Not in the preparation of the graph.
12		The way this came about was we were finishing
13		up our valuation report, the 2014 La Capra
14		report, and Staff, at the time, asked us if we
15		could provide data that would allow them to
16		develop a forecast of what default service
17		rates would be going forward. Our modeling
18		analysis did produce that information, so we
19		provided that to Staff. Staff then took that
20		information, gathered other data and made other
21		calculations. And that's my understanding of
22		what went into this graph.
23	Q.	So is it fair to say that La Capra did not
24		prepare a forecast of PSNH default service
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1		rates?
2	A.	(Hahn) That's fair.
3	Q.	On the next page of the Staff report, Page 4,
4		there's another graph titled, "Forecast of PSNH
5		Default Service Rate Compared to Retail Default
6		Service Rate." Do you see that?
7	Α.	(Hahn) I do.
8	Q.	Did La Capra prepare that chart or graph?
9	Α.	(Hahn) No.
10	Q.	Did La Capra prepare any forecast of PSNH
11		default service rate compared to retail default
12		service?
13	Α.	(Hahn) No.
14	Q.	Did La Capra prepare a report for Commission
15		Staff in 2015?
16	Α.	(Hahn) Yes.
17	Q.	And the title of that report is what?
18	A.	(Hahn) "PSNH Generation Asset and PPA Valuation
19		Report, August 2015 Update." And the date of
20		that report is August 17th, 2015.
21	Q.	And as you're aware, the parties to this case
22		went through a similar process that we just did
23		regarding the non-disclosure agreements and
24		production of that report to parties who signed
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1		that. Do you recall that process?
2	Α.	(Hahn) Yes.
3	Q.	And with regard to the 2015 report, there was
4		both a public version and a confidential
5		version. Do you recall that?
6	Α.	(Hahn) Correct.
7	Q.	I also note that the documents prepared didn't
8		have the "Draft" stamp on all of them. Was a
9		final version of that report ever prepared by
10		La Capra?
11	A.	(Hahn) I don't believe so.
12	Q.	Can you tell us what you recall of the process
13		that resulted in the 2015, what I will call
14		"the 2015 update"?
15	Α.	(Hahn) Sure. Our 2014 report was issued on
16		March 31st, 2014. I'm not sure exactly when,
17		but sometime, I want to say, either June or
18		July of 2015, Staff called us called me at
19		La Capra and asked about what has changed since
20		the 2014 La Capra report was issued. We
21		discussed changes, and Staff asked about
22		whether it would be possible to produce an
23		update of the 2014 report. At that time, I
24		stated that there were really two alternative
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ways to proceed: One would be a complete 1 2 update, a complete redo of the 2014 La Capra report, which would take several months and 3 approximately about the same level of effort as 4 went into the original report. We also talked 5 about doing a less-extensive update to account 6 for what I felt was the major changes that had 7 8 occurred since 2014. And those changes were that there was more information on forward 9 capacity prices and the outlook for energy 10 11 prices in New England, particularly electric locational marginal prices, LMPs. And also, 12 prices for delivered natural gas to New England 13 power plants had changed. And I indicated that 14 15 if we did just update it, took the original study, all of the simulations that were done --16 17 and just so everyone understands, we have a model that simulates the operation of the 18 19 ISO-New England electricity market on an hourly 20 It's fairly involved to run one of basis. 21 these. But what we suggested was that we could 22 keep the dispatch the same and update our models for what would amount to higher capacity 23 24 revenues to generators and lower energy

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1		revenues to generators, and we indicated that
2		that would take far less time and far less
3		effort.
4	Q.	And the second option is what Staff elected to
5		have you do; is that correct?
6	A.	(Hahn) That's correct.
7	Q.	And that's what resulted in the 2015 update we
8		have in front of us now.
9	A.	(Hahn) Yes.
10	Q.	And the bottom line of that update was a new
11		number for the total value of the PSNH assets;
12		is that right?
13	A.	(Hahn) Yes.
14	Q.	And that bottom line change was what?
15	A.	(Hahn) It didn't change very much. Increased
16		to \$235 million from \$225 million; so, an
17		increase of about \$10 million in the valuation
18		of the assets. That's all of the assets in
19		aggregate.
20	Q.	Some went up, some went down, and that result
21		was
22	A.	(Hahn) Net increase of 10 million.
23	Q.	As part of the 2015 update, did Staff ask you
24		to update or calculate the PSNH energy service
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			30
1		rate?	
2	A.	(Hahn) I don't believe so.	
3	Q.	Did Staff ask you to calculate any impact that	
4		the sale of the assets would have on PSNH's	
5		energy service rates?	
6	А.	(Hahn) No.	
7	Q.	Did the report ask you to give any opinion on	
8		the question of whether divestiture should	
9		happen, or when?	
10	Α.	(Hahn) The 2015 report did not ask La Capra	
11		that question, nor were we asked to address it	•
12			
13	Q.	And that holds for the 2014 report as well.	
14		You weren't asked to address that question	
15		meaning, whether divestiture was appropriate,	
16		and if so, when?	
17	Α.	(Hahn) That's correct. We were not asked that	•
18		We were not asked to address that question as	
19		part of the 2014 report.	
20	Q.	The 2014 report projected an LMP which is	
21		what is an "LMP"?	
22	Α.	(Hahn) LMP stands for locational marginal	
23		price. It is a there are it is a price	
24		at each commercial zone within the ISO-New	
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1		England Energy Settlement System. So it varies
2		by where you are in New England.
3	Q.	And that price, that LMP strike that.
4		You also prepared in the 2014 report a
5		forecast of capacity prices; is that correct?
6	Α.	(Hahn) Yes, that was one of the inputs into the
7		2014 report. The LMPs were an output.
8	Q.	And part of the as you just said, part of
9		the reason for the 2015 update is that the
10		capacity forecast in the 2014 report was out of
11		date because there had been another Forward
12		Capacity auction; is that right?
13	Α.	(Hahn) That's correct. In between the 2014 La
14		Capra report and the 2015 La Capra report,
15		FCA which stands for Forward Capacity
16		Auction No. 9 had occurred, and we knew what
17		the prices were.
18	Q.	Does the LMP in your 2014 report contain any
19		costs related to PSNH generation?
20	Α.	(Hahn) The LMP is a indication of the marginal
21		cost at that location. It represents the cost
22		of supplying one more megawatt in an hour or
23		one megawatt hour during that hour, at that
24		particular location. So, to the extent that
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1		Public Service of New Hampshire's generating
2		units were in the dispatch that created that
3		price, then I think arguably you could say it
4		had an impact. But the price itself the
5		LMPs in New England, the vast majority of the
6		time, are set by natural gas combined cycle
7		units. So I can't say for sure, but I don't
8		believe that any of Public Service of New
9		Hampshire's units set the price.
10	Q.	Well, I'm asking what you looked at in coming
11		up with your opinion of what the locational
12		marginal price was forecasted to be. Did you
13		do any analysis of PSNH generation costs?
14	A.	(Hahn) We did not do any analysis. But let me
15		explain what we did do.
16		We had we developed our own forecast of
17		generator fuels so, natural gas, coal, wood.
18		We did receive from the Company, Public Service
19		of New Hampshire, operating characteristics for
20		their plants and for, I think it was also
21		variable O&M, non-fuel O&M costs. And those
22		were inputs into our Northeast Market Model,
23		which runs an hourly dispatch of the New
24		England energy grid. So those and we have

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1		inputs for every other generating unit in the
2		ISO-New England system as well. And that's how
3		ISO-New England dispatches its system. It
4		gets it receives bids from generators'
5		offers to sell their output. They run a
6		dispatch that estimates the least cost way to
7		serve any particular load level, and then they
8		calculate the marginal price, which is the cost
9		of one additional megawatt in an hour, and that
10		becomes the LMP. Our Northeast Market Model
11		simulates that process in the future. So it
12		performs essentially the same dispatch that
13		ISO-New England would, except ours is
14		forward-looking farther into the future.
15	Q.	Is it fair to say that the LMP is a market
16		price?
17	Α.	(Hahn) Yes.
18	Q.	And that market price, although as you just
19		described, it takes into account many, many
20		pieces of information well, strike that.
21		Did you review Mr. Cannata's testimony
22		in this case?
23	Α.	(Hahn) I did.
24	Q.	Mr. Cannata describes the values of load
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

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1		obligation payments that La Capra used in its
2		New Hampshire energy prices for the low gas
3		case. The question is: Did he accurately
4		reflect those values in his testimony?
5	Α.	(Hahn) I don't think Mr. Cannata's testimony
6		used LMPs. So I guess the answer to that
7		question is, I don't think so.
8	Q.	The question wasn't directed at the LMPs but at
9		the load obligation payments. I can find the
10		reference.
11	Α.	(Hahn) Yeah, a reference would be helpful, Mr.
12		Sheehan.
13	Q.	Sure.
14		(Pause)
15	Q.	Do you have a copy of Mr. Cannata's testimony
16		in front of you?
17	Α.	(Hahn) I do.
18	Q.	At Table 1 on Bates page on the bottom, Page 10
19		of 41.
20	Α.	(Hahn) I have Page 10, Table 1.
21	Q.	There's a column third from the right titled,
22		"La Capra Weighted Average Dollars Per Kilowatt
23		Hour Month For Calendar Year." Do you see that?
24	Α.	(Hahn) Yes.
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1	Q.	And my question is simply: Did Mr. Cannata
2		accurately reflect values he says are from La
3		Capra. Are they correct? And the issue is
4		it's a math thing. You had annual values. He
5		did the math to make them into monthly values.
6	A.	(Hahn) Oh, all right. That I can explain.
7		Sorry if I was being obtuse.
8	Q.	That's okay.
9	A.	(Hahn) The ISO-New England capacity year runs
10		from June 1st of one year to May 31st of the
11		next year. So they refer to that as a
12		"capacity year." I'll use as an example
13		2014-2015; so, June 1st, 2014 through May 31st
14		of 2015. And the prices are set for those 12
15		months, seven of which occur in 2014 and five
16		of which occur in 2015. So it's not uncommon
17		to use to do cost analyses on a
18		calendar-year basis. So you would need to
19		if I wanted to do a calendar-year forecast for
20		2015, I would take five months from the
21		2014/2015 capacity year and seven months from
22		the 2015/2016 capacity year and weight them.
23		So, five times the first price, plus seven
24		times the second price, divided by 12 gives you
Ĺ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		an average for the year. And it appears to me
2		from Table 1 that that's what Mr. Cannata did
3		as well.
4	Q.	You don't have your calculator in front of you.
5		But if that's the approach he took, that was
6		the right approach to take in order to get a
7		number as he described it, a weighted average
8		in dollars per kilowatt month.
9	Α.	(Hahn) For a calendar year, yes, that appears
10		to be the same method he used.
11	Q.	Mr. Cannata held capacity values constant at
12		the FCM 9 levels from 2019 through 2021. If
13		you were to do that kind of projection, would
14		you do that, or would you do some other
15		analysis for future capacity values?
16	Α.	(Hahn) I would not just take the FCA 9 price
17		and assume it fixed. We have a model that
18		forecasts capacity prices, and that's what we
19		would use. That's what we used in the 2014 La
20		Capra report, and that's what we used in the
21		2015 La Capra report, the August 2015 update.
22	Q.	And the update, the future the forecasted
23		prices based on FCM 9 showed that those prices
24		rose from FCM 9 levels; is that correct?
		$\int DE [14-229]$ (TECHNICAL SECTION) $\int [10-26-15]$

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(Hahn) Eventually. 1 Α. 2 Q. At least over the course of that, well, yeah, two- or three-year period? 3 (Hahn) I'm going to refer to the confidential 4 Α. 5 portion of the 2015 report, but we don't need to go into a special session for that. 6 Those 7 of you that have the report, you can see it. 8 Those of you that haven't signed a 9 non-disclosure agreement won't be able to see it. 10 11 But on Page 7 in the update, immediately after FCA No. 9 we assume a slight reduction in 12 prices and then followed by increases each 13 14 year. 15 Okay. If you could locate Mr. Chung's Q. 16 testimony. I understand you have it in front 17 of you. And in particular, Page 4, you have that in front of you? 18 19 Α. (Hahn) Yes, I do, sir. 20 In the question and answer at Lines 4 through 0. 21 11, the answer says, "The primary source of the 22 data for the savings estimate was the April 1, 2014 study conducted by La Capra Associates as 23 part of Docket No. IR 13-020." 24

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1		My question is: The April 1, 2014 study,
2		was that the one conducted by La Capra or by
3		Staff?
4	Α.	(Hahn) No, the April 1st report was performed
5		by Staff.
6	Q.	And that's what we just went through 15 minutes
7		ago.
8	Α.	(Hahn) Yes, sir.
9	Q.	The next sentence says, "The La Capra study
10		contained forecasts of prices for PSNH default
11		energy service, as well as that of
12		competitively supplied electricity, along with
13		other information." Again, is that the
14		forecasts that were in the Staff report, not in
15		the La Capra report?
16	Α.	(Hahn) I believe that they were the forecast
17		that the reference is to the forecast in the
18		Staff report.
19	Q.	Turn to Page 5 of the same, Mr. Chung's
20		testimony, question and answer, Lines 1 through
21		7. The answer is: "The most significant
22		financial modeling assumptions contained in my
23		analysis relate to: 1) the estimated
24		generation assets sale price" I'll stop the
	L	{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		quote. That is what you, La Capra, did;
2		correct?
3	Α.	(Hahn) Correct.
4	Q.	"2) forecasted competitive market energy
5		rates." You provided that information; is that
6		correct?
7	А.	(Hahn) Well, no, I think that's what Staff
8		provided. We provided information in terms of
9		LMP and capacity prices, and then Staff the
10		April 1st Staff report produced the forecast of
11		competitive market energy rates, which would be
12		what customers would pay if default service
13		were procured from ISO markets.
14	Q.	Okay. And returning to the quote,
15		"3) forecasted PSNH's energy service rates."
16		And again, that is something that Staff did,
17		not La Capra; is that correct?
18	A.	(Hahn) I believe that's correct, yes.
19	Q.	And, "4) costs associated with the Burgess and
20		Lempster PPAs." Is that work that La Capra did
21		or Staff?
22	A.	(Hahn) Well, the costs of the PPAs were from
23		the PPAs themselves. So we had that in our
24		report, and Staff would have that information
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1 as well.

2	Q.	Okay. And the following statement says, "All
3		of these assumptions come directly from the La
4		Capra study." That's not entirely accurate, as
5		we just summarized; correct?
6	A.	(Hahn) Correct. I think, obviously, some of it

7 came from our report and some of it came from
8 Staff's report.

There was another statement that you don't have 9 Q. in front of you that was in a pleading filed in 10 11 this case that's in a similar vein. I just want to read it to you and ask you the same 12 question, if there's similar confusion between 13 14 what La Capra did and what Staff did. This is 15 from Advocate Staff's motion regarding what brought about this procedure. 16

Quote: "Mr. Cannata directly refutes the
conclusions of La Capra analysis that
divestiture is in the economic interest of PSNH
customers."

21 So my question is: Did the La Capra 22 analysis conclude that the divestiture is in 23 the economic interest of PSNH customers in any 24 of its reports in 2014 or 2015?

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(Hahn) That was not a conclusion we offered one 1 Α. 2 way or another. Thank you. 3 Q. Just a clarification on what -- again, 4 going back to what La Capra did in the 2014 5 report as updated, as opposed to what Staff did 6 7 in its report. Am I correct to say that what 8 La Capra did is it calculated and projected LMP, and it prepared a capacity forecast, but 9 it was Staff that put those two numbers with 10 11 whatever other adjustments it made to come up with a competitive rate and a PSNH rate? 12 Is that a fair statement? 13 (Hahn) But we did talk with Staff about that, 14 Α. 15 as I previously indicated. Staff asked us 16 if -- you know, how would you do a comparison. 17 And we said, well, the -- if you buy default service from a supplier, a third-party 18 19 supplier, or if you go to the ISO markets 20 directly, you'll pay capacity energy, ISO's 21 other costs, which include ancillary services 22 and things like that. And that information -certainly the two biggest pieces are capacity 23 and energy. They account for 95, 97 percent of 24

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1		the cost. So we gave them that. We suggested
2		that that could be used to estimate what a
3		third-party supplier would bid in a competitive
4		market. So we did provide them with that
5		guidance. But as I said earlier, Staff did the
6		calculation itself.
7	Q.	So if one were to critique what Staff did in
8		its report, putting the pieces together, that
9		was Staff's work, not La Capra's. I understand
10		you gave them some data points.
11	A.	(Hahn) Correct. What happened was we gave them
12		a spreadsheet. They made some calculations.
13		They sent it back to us, and it looked okay to
14		us. But we did not actually do it, no.
15	Q.	Okay.
16		MR. SHEEHAN: To the extent,
17		Alex, that you're the chairman of these
18		proceedings, I don't have any more questions
19		now. I think go ahead.
20	Α.	(Hahn) Mr. Koehler reminded me. In one of my
21		previous answers to your questions, you said
22		that we estimated the asset valuation as of
23		March 31st, 2014. My answer to that was too
24		quick. In the 2014 La Capra report, the asset
l		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	valuation was as of January 1st, 2015. And in	
2	the 2015 La Capra report update, the valuation	
3	was of January 1st, 2016. I just need to make	
4	that clarification on the report.	
5	BY MR. SHEEHAN:	
6	Q. Fair enough. And I had one more follow-up	
7	along what we were talking about.	
8	Did La Capra give information on the PSNH	
9	energy service rate? Did you provide any	
10	information on PSNH energy service rate?	
11	A. (Hahn) No. We agreed that Staff probably knew	
12	more about how that rate was set than we did	
13	since that's a rate that is set in a room like	
14	this. So, Staff did that estimate without	
15	assistance from us.	
16	Q. Thank you.	
17	MR. SHEEHAN: Alex, you want to	
18	take it from here?	
19	MR. SPEIDEL: Very good. Thank	
20	you, Mr. Sheehan. We would now like to open,	
21	per the order of questioning, the floor to	
22	Advocate Staff, Ms. Ross.	
23	EXAMINATION	
24	BY MS. ROSS:	
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1	Q.	Thank you. Sounds like the mic is working.
2		Good morning, Mr. Hahn and Mr. Koehler.
3		How do you pronounce your last name? Is it
4		"Kaylor" or "Kohler"?
5	A.	(Koehler) "Kaylor."
6	Q.	"Kaylor." Thank you.
7	A.	(Hahn) He wishes he was related to the Kohls.
8	Q.	Thank you for correcting the valuation date. I
9		was actually that was going to be my first
10		question.
11		Let me just ask you. What preparation did
12		you undertake for this deposition?
13	Α.	(Hahn) I reread our reports: The 2014 La Capra
14		report, the 2015 La Capra report, update. I
15		reviewed certain pieces of testimony that had
16		been filed: The testimony of Mr. Chung I read;
17		the testimony of Mr. Frantz; the testimony of
18		Mr. Cannata; the testimony of Mr. Stachow; I
19		read the settlement agreement. Is it agreement
20		or stipulation? I'm not sure which. But I
21		read that. And I may have seen some discovery
22		responses that were provided either in this
23		proceeding or in previous proceedings. I think
24		that's pretty much what I looked at.

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1	Q.	And what subject areas did the discovery
2		responses deal with?
3	Α.	(Hahn) I think in Mr. Cannata's testimony he
4		cited a discovery response by Mr. Smagula. I'm
5		not even sure what docket it was. But I went
6		and found that and looked at it. I don't
7		recall the others specifically.
8	Q.	Okay. Did you communicate with the
9		Non-Advocate Staff prior to the deposition?
10	Α.	(Hahn) You mean yes.
11	Q.	And what were the nature of those discussions?
12		MR. SHEEHAN: I object, Anne.
13		Of course he talked to counsel about today.
14		But those would be privileged conversations.
15		If you want to ask what he was provided or did,
16		any further conversations with counsel present
17		would be protected.
18	BY M	S. ROSS:
19	Q.	Could you describe the subject matter areas
20		that the Staff identified to you that you would
21		need to be prepared to discuss today?
22	Α.	(Hahn) I was provided by I'm sorry. Staff
23		provided to me summaries from certain parties
24		in this case that indicated what issues they
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1wanted to address. I viewed that to be sort of2a heads-up as to what we might get asked on. I3think I saw one from CLF, one from the city and4town, maybe one from OEP. But there were,5like, four or five of them. I was provided6those and I read them. I was provided with a7verbal description of how this proceeding would8occur today, you know, what the format would9be, sort of general background information.10Q.Q.Okay. Thank you.11When you prepared the draft 2015 update12for Staff and submitted it in the draft form,13were there any communications regarding whether14or not that would be finalized?15A.(Hahn) I don't believe so. It's not unusual16for us to provide a client with a draft report.17We don't allow clients to dictate what goes in18the report. But sometimes they can suggest19either areas that need to be explained better20or need to be clarified. So we did provide a21draft report. I don't recall any conversations22about taking the word "Draft" off and reissuing23it. Maybe they occurred, but I don't recall24them.			
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24 them.	23		it. Maybe they occurred, but I don't recall
	24		them.

{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	Q.	What did you do to produce the 2015 report? I
2		know you touched on it earlier. But could you
3		just give me a little more detail. Did you
4		actually take model runs you used in 2014 and
5		changed them? Or how did you produce the 2015
6		report?
7	A.	(Hahn) The 2014 valuation report created a pro
8		forma financial statement for each PSNH
9		generating plant. That financial statement
10		would include, as any generator would in the
11		ISO-New England settlement system generates,
12		capacity revenues, energy revenues, ancillary
13		service revenues. And the generator has
14		certain costs. They have to buy fuel; they
15		have variable O&M they need supplies to run
16		the power plants; they have to hire people;
17		they make capital investments. And the net
18		impact of that financial statement determines
19		what the value would be to a prospective
20		investor. So we looked at the we approached
21		the valuation. And it's referred to as a
22		"discounted cash flow methodology," or "DCF."
23		And that's a fairly standard tool for valuating
24		assets. And so we basically had that financial
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{DE 14-238} (TECHNICAL SESSION) {10-26-15}

 statement as one of the key determinants of t asset value that we estimated. Does that answer your question or not? I'm not sure. Q. And other inputs that would go into that asset value would be some forecast of those revenue streams going forward that you would then use in your DSF [sic] analysis; correct? A. (Hahn) Sure. So we would forecast the capacit revenues the capacity price. The energy revenues came from our simulation of the ISO energy markets. Many of the units we deemed did not qualify for ancillary service revenues And so there was a small component of that. 	t
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12 did not qualify for ancillary service revenue	
13 And so there was a small component of that.	•
14 But that constitutes sort of the revenue line	
15 in this model.	
16 Q. So in the 2015 update, some of the revenue	
17 lines would have been adjusted from the 2014	
18 report or analysis; correct?	
19 A. (Hahn) That's correct. So we updated our	
20 capacity prices, which updated the assumed	
21 capacity revenues. And we had we estimate	d
22 the impact of new gas prices because now we	
23 have a new gas price forecast for the New	
24 England area. And so we updated the energy -	-
{DE 14-238} (TECHNICAL SESSION) {10-26-15}	

1		the forecast of energy revenues. And we held,
2		I think, pretty much everything else, pretty
3		much everything else the same.
4	Q.	And is it your opinion that by capturing the
5		Forward Capacity Market shift and the gas
6		market shift, you address the two major changes
7		so that the resulting valuation is still
8		relatively valid?
9	Α.	(Hahn) Yes.
10	Q.	In your 2015 update, you mentioned there's been
11		a decline in forecasted natural gas prices. Is
12		this the case, even though we've had winter
13		volatility in gas prices in New England?
14	A.	(Hahn) Yes. We do forecast a continuation of
15		the price spikes, but at a much lower level
16		than when they peaked in the winter of 2013. I
17		mean, gas prices are definitely seasonal, as
18		are electric prices.
19	Q.	And do you anticipate they will continue to
20		peak in the winter months going forward?
21	A.	(Hahn) Yes, we believe that gas prices in the
22		winter months will be higher than in the summer
23		months. But as a general rule, the market
24		forward prices are telling you that the annual
	<u>. </u>	{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		average prices of those is going down.
2	Q.	And for purposes of forecasting, then you're
3		comfortable using an annual average, even
4		though there are price spikes?
5	Α.	(Hahn) Well, we don't use an annual average.
6		We use a monthly average. That's a fairly
7		standard technique in long-term simulations.
8		Even though it's an hourly dispatch model, we
9		use monthly fuel prices. So they would show
10		very high prices in January and February for
11		natural gas, which is an input fuel to many
12		generators in New England, and they would show
13		very low prices in April March, April, May,
14		June. You might see another slight price
15		increase in July and August, but not as high as
16		it would be in the winter. And then they'd
17		climb again.
18	Q.	I think there has been some criticism by
19		Non-Advocate Staff of your use of average
20		monthly prices, and that's why I'm questioning
21		you a little about whether that's a valid
22		measure for purposes of forecasting. And I
23		assume the answer to that is yes, that you
24		consider that valid still?
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{DE 14-238} (TECHNICAL SESSION) {10-26-15}

		51
1	А.	(Hahn) Absolutely.
2	Q.	And so is it fair to say that your natural gas
3		forecast in your 2015 update takes into account
4		those winter price peaks in gas pricing?
5	Α.	(Hahn) Yes.
6	Q.	And how does your asset value in the 2015
7		update capture Forward Capacity Market pricing
8		increases?
9	A.	(Hahn) Well, it's higher Forward Capacity
10		Market revenues which are offset by lower
11		energy market revenues.
12	Q.	Okay. So, even though the overall number is
13		slightly higher for the assets, is that a
14		reflection of the capacity market?
15	A.	(Hahn) It's a reflection of both.
16	Q.	Of both.
17	A.	(Hahn) Now, I need to be maybe offer a
18		little more detail here. For the hydro units,
19		they get hydro unit gets more of its revenue
20		from the energy market than it does capacity
21		market. So those would not they would have
22		some increase in capacity, but less of a
23		reduction in energy. Some units like Newington
24		don't run very much, so the energy impact on
	L	{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		those is primarily the higher capacity market
2		revenues.
3	Q.	Hence the increase in your valuation on
4		Newington?
5	Α.	(Hahn) Correct.
6	Q.	Is there a new Confidential Figure 4, which is
7		the New Hampshire LMPs which is shown on
8		Page 29 of your 2014 report?
9		(Witness reviews document.)
10		MR. SHEEHAN: What page?
11		MS. ROSS: Twenty-nine.
12	Α.	(Hahn) Page 29 of the 2014 report?
13	BY M	IS. ROSS:
14	Q.	That's correct.
15	Α.	(Hahn) I have it.
16	Q.	Do you have an updated one based on your 2015
17		update?
18	Α.	(Hahn) It does not look like we included that
19		same figure in the 2015 update.
20	Q.	Would it be possible to produce that update?
21		MR. SPEIDEL: We would object to
22		that. This witness is Non-Advocate Staff's
23		consultant. You can ask questions about the
24		materials that have been produced thus far, but
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		I don't think that there is an ability to
2		request the production of additional materials
3		by our consultant.
4	BY M	IS. ROSS:
5	Q.	May I ask if the LMP forecast was updated as
6		part of your 2015 update?
7	Α.	(Hahn) Yes, but we updated it without rerunning
8		the market simulation. We used a manual
9		adjustment to the LMPs that were output from
10		the 2014 study and used a manual procedure to
11		adjust those for the lower gas prices.
12	Q.	Hypothetically, if you were asked to produce
13		that, how long would it take to do it?
14	Α.	(Hahn) Not long. But we
15	Q.	Days? Hours?
16	Α.	(Hahn) A week.
17	Q.	A week. Thank you.
18		Are there any updates to the Section 5
19		scenario results? And this is actually in the
20		market model report, so other parties don't
21		have it. But Section 5, if you recall, is a
22		discussion of your inputs.
23	Α.	(Hahn) Do you have a page number, Ms. Ross?
24	Q.	Hold on. I'll get it for you. It's
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		essentially beginning at Page 63. There's a
2		series of figures: 5.1, 5.12, 13. They're
3		just your inputs on some of your key inputs
4		into the report?
5		MR. SPEIDEL: Please speak into
6		the microphone, Ms. Ross.
7	BY M	S. ROSS:
8	Q.	I'm sorry. It ends on Page 68. So it's Page
9		63 to 68 of the Northeast Market Model input.
10	A.	(Hahn) I'm sorry. Is there is a question
11		pending?
12	Q.	Yes. I asked whether any of those inputs had
13		been updated as part of your 2015 update.
14	Α.	(Hahn) In the 2015 update, we only updated the
15		reference case. We didn't do all of these
16		other scenarios.
17	Q.	But you would have had an update, for instance,
18		on your reference case for 5.12 5.1.2, and
19		the same for your LMP?
20	Α.	(Hahn) I'm sorry. Can you direct me to where I
21		should be looking, please?
22	Q.	Yes. On Page 63 you have a reference case on
23		Figure 5.1.1. So that would have been updated.
24		You're saying you only updated your reference
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		case. Just trying to understand what work you
2		actually did for the update.
3	Α.	(Hahn) Well, we did not let me be clear. We
4		did not re-perform a simulation or a dispatch.
5		We didn't have time for that. But we believed
6		that by adjusting the 2014 results for the
7		change in natural gas prices that we could
8		accurately capture that. So we didn't produce
9		this chart. We didn't do all these high and
10		low cases, alternative scenario cases. Made
11		the adjustment.
12	Q.	Okay. If you were to do that work, how long
13		would that take?
14	А.	(Hahn) All of the alternative scenarios?
15	Q.	Those would take
16	A.	(Hahn) That would take a long time.
17	Q.	Okay.
18	A.	(Hahn) That would basically require a
19		re-simulation. So, four to six months? Don't
20		hold me to that, but
21	Q.	That's all right. I'm just trying to get an
22		idea of the work involved.
23		On Figure 8, Page 33 of the report we just
24		passed out, which is an FCM price forecast
	L	${DE 14-238}$ (TECHNICAL SESSION) ${10-26-15}$

(Hahn) Are you referring to the 2015 La Capra 1 Α. 2 report? Excuse me. Page 33. There's a 3 2014. Q. Confidential Figure 8. Has that been updated 4 5 as part of your 2015 report? (Witness reviews document.) 6 7 (Hahn) Yes. Α. 8 MS. ROSS: And I guess I would 9 request a copy of that update. 10 MR. SPEIDEL: Perhaps we should 11 confirm that the FCM price forecast referred to in Figure 8 has indeed been updated in the 2015 12 report. I think we want to confirm that. 13 14 MR. HAHN: It has, and it's 15 shown in Figure 1 on Page 7 of the 2015 La 16 Capra report. 17 BY MS. ROSS: Right. And this just asks for it in table 18 Q. 19 form, as it was shown in Figure 8 originally. 20 MR. SPEIDEL: Well, again, I 21 think that would be subject to some discussion 22 by Non-Advocate Staff with La Capra. It might 23 be a possibility, but it would require our authorization. 24

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		57
1		MS. ROSS: All right.
2		Obviously, any request I make would require
3		I understand it will require your
4		authorization. And I'm just making a request
5		on the record, and we don't need to resolve
6		them today.
7	BY M	S. ROSS:
8	Q.	On Page 50 of your 2014 report, there's a
9		figure that talks about the high retirement
10		scenario in the FCM price forecast. Has that
11		data been updated as parts of your 2015
12	Α.	(Hahn) I don't believe so. As I said, we only
13		updated the reference case.
14	Q.	And if you were to undertake an update to that
15		particular data, how long would that take?
16	A.	(Hahn) Well, I'm not sure exactly because that
17		would require us rerunning the capacity and
18		price forecasting model. So, at least a month.
19	Q.	And then one last question on the report that
20		has not been distributed, which is the
21		Northeast Market Model. On Page 60 of that
22		report
23	A.	(Hahn) Which page, ma'am?
24	Q.	Sixty, 6-0. It's Table 4.1. It's on
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		cumulative retirements. Has that been updated
2		as part of your 2015 update?
3	A.	(Hahn) No.
4	Q.	And again, if you were to undertake that
5		update, what kind of time would be required?
6	A.	(Hahn) Well, I think that would be part of the
7		month-long effort to update capacity prices. I
8		mean, you have to start with a set of
9		assumptions about what existing units are going
10		to be there.
11	Q.	Right.
12	A.	(Hahn) So we would need to do that.
13	Q.	Just a question. Earlier when we were talking
14		about the LMP forecasts that you did, which is
15		the locational marginal pricing for the New
16		England region and the LMP is a wholesale
17		price, isn't it?
18	A.	(Hahn) It is, but it determines what is charged
19		to load assets or load supplies.
20	Q.	And that was going to be my next question.
21		Could you walk through what would be the
22		appropriate adjustments to make to the LMP and
23		the Forward Capacity Market prices to arrive at
24		an assumed retail price in New England.
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{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	A.	(Hahn) Sure. For the energy price, the retail
2		load, which would be measured at an on-premise
3		meter, to that figure you would have to add
4		losses and represent the burden that that
5		places on the generators. Those numbers are
6		usually known and usually don't vary from year
7		to year. So you would need to either gross up
8		the LMP itself or gross up the kilowatt hours
9		to be at the generation level, and then you'd
10		arrive at same revenues. So the LMP can be
11		used to determine both the wholesale revenues
12		to generators and the retail cost to I mean
13		and the load cost to retailers.
14	Q.	Okay.
15	A.	(Hahn) Now, as far as you said capacity was
16		your other question?
17	Q.	Yes.
18	A.	(Hahn) There are different capacity prices that
19		a generator receives and the load pays
20		obviously because sometimes ISO-New England
21		procures more than its installed capacity
22		requirement in any Forward Capacity auction.
23		So the way this works is ISO holds an auction.
24		Generation suppliers that offer capacity and
l		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		bid into the capacity market and succeed are
2		awarded a capacity supplier obligation, a
3		certain amount of megawatts, and they get paid
4		a rate for that. ISO aggregates all those
5		payments with generators and needs to collect
6		that amount from load. So, sometimes there's a
7		different price, capacity price to load. But
8		again, it's knowable and it's calculable I'm
9		sorry. It's not knowable. But after an
10		auction is done, you know how much you need to
11		collect. So it is knowable.
12	Q.	Okay. I believe you have Mr. Cannata's
13		testimony in front of you. If you would turn
14		to Page 8. On Page 8 it discusses
15	Α.	(Hahn) Can I have a moment, please, to find
16		that? All right. I have Page 8 of Mr.
17		Cannata's testimony.
18	Q.	And on Page 8, he discusses both the ISO-New
19		England capacity payments made to PSNH on its
20		generation plants, and he also talks about load
21		obligation payments to ISO made by PSNH as a
22		result of its role as a supplier of load to its
23		default service customers.
24		My question is: How does your 2014 report
	L	{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		account for both the capacity and load
2		obligation payments?
3	A.	(Hahn) Well, the 2014 report was focused on
4		generator revenues. So the capacity price that
5		generator revenues received was a direct and
6		important input into the 2014 La Capra report.
7		Since that report did not attempt to estimate
8		what the cost to load would be, we didn't
9		calculate that. It's calculate-able from that
10		information, but we didn't do it.
11	Q.	Are both the capacity and load obligation
12		payments included in your LMP forecast?
13	Α.	(Hahn) Well, the capacity market is separate
14		from the energy market. So there's no
15		interaction between the two, other than there
16		are requirements. For example: If you receive
17		a capacity if you are a generator and
18		receive a capacity supplier obligation, there
19		are certain requirements, like you must offer
20		energy to the energy market. But the
21		mechanisms, the market mechanisms are separate
22		and distinct. So you can have a change in
23		capacity prices and a change in LMPs, and they
24		aren't necessarily related. They could be.
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

 $\{DE 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1		For example: If you added a highly efficient
2		combined cycle unit, a new one, that might
3		especially if it's in a place where capacity is
4		needed, and therefore the FCA clears at a high
5		price, you might get an increase in capacity
6		prices but a decrease in LMPs because the more
7		efficient plant bumped a higher cost unit off
8		the margin.
9	Q.	If one were to look at competitively procured
10		retail rates in New Hampshire, would it be safe
11		to assume that those rates would include
12		load-serving entities, load payments at the
13		wholesale level to ISO-New England?
14	A.	(Hahn) Are you referring to a third-party
15		competitive supplier
16	Q.	Yes.
17	Α.	(Hahn) or Public Service of New Hampshire as
18		a default
19	Q.	Yes, I'm referring now to a third party, where
20		you go out, as a couple of our utilities do,
21		and just issue an RFP: Load following power to
22		this class of customers for six months.
23	Α.	(Hahn) All right. So this is Public Service
24		bidding for a third-party-provider
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Right. 1 Q. -- (Hahn) to supply default service load for 2 Α. which Public Service remains the load asset 3 owner? 4 No, for which the supplier takes the asset 5 Q. obligations. 6 7 (Hahn) Okay. Generally, all wholesale -- all Α. providers of load, entities that serve load, 8 9 their underlying cost are the capacity costs, the energy costs, and if they are required to 10 11 pay for any of the ancillary services that ISO organizes, all of those costs, including the 12 load obligation payment would be included in 13 14 those rates. There is also likely things like 15 a risk margin, profit margin and things like 16 that. 17 Q. Thank you. In Mr. Cannata's calculation, Table 1 on 18 19 Page 10 that you were referred to earlier --20 scratch that question. 21 I think that's it for the questions that I 22 Thank you very much. have. 23 (Hahn) You're welcome. Α. 24 MR. SPEIDEL: Okay, Ms. Ross. $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

	04
1	Thank you. May we be off the record for just a
2	quick second?
3	(Discussion off the record.)
4	MR. SPEIDEL: May we please
5	return to the record. I would now like to
6	invite the Company to ask questions of the
7	witnesses.
8	MR. BERSAK: Thank you. Do the
9	witnesses need a break?
10	MR. HAHN: No.
11	MR. BERSAK: Great.
12	EXAMINATION
13	BY MR. BERSAK:
14	Q. My name is Bob Bersak. I'm an attorney with
15	Eversource. I'm sitting at the Eversource
16	table. I want to thank you both for helping us
17	with this process, long time coming, and for
18	your perseverance during this unusual procedure
19	today. I just have a few questions for you.
20	We've referred throughout the questioning
21	this morning to your reports that were done
22	back in 2014, as well as an update in 2015.
23	Now, if I understand what these reports are all
24	about and please tell me if I'm wrong the
ļ	${DE 14-238}$ (TECHNICAL SESSION) ${10-26-15}$

1		purpose of the reports was to come up with an
2		estimate of the value of PSNH's generating
3		assets which may be divested sometime in the
4		future; is that correct?
5	Α.	(Hahn) That's correct.
6	Q.	And as part of that valuation you did an
7		update, and that update from 2015 was dated
8		August 17; is that correct?
9	Α.	(Hahn) 2015. That's correct.
10	Q.	The 2015 was done August 17 of 2015.
11		Now, I assume that both you, Mr. Hahn, and
12		you, Mr. Koehler, are aware of the announced
13		shutdown of the Pilgrim Nuclear Station; is
14		that correct?
15	Α.	(Hahn) Yes, sir.
16	Q.	And that announcement by its owner occurred
17		less than two weeks ago, on October 23rd. So,
18		would that have been included in your August 17
19		update, the impacts of the shutdown of Pilgrim?
20	Α.	(Hahn) No.
21	Q.	Do you have any idea exactly when Pilgrim will
22		be shut down?
23	Α.	(Hahn) Only what I read in The Boston Globe,
24		which is by 2021. I'm not sure of the date.
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

We don't know. 1 Q. (Hahn) I have no insider information as to what 2 Α. entity will do with Pilgrim. 3 Possible that they could shut down sooner if 4 0. 5 they buy into the reconfiguration auctions to deal with their capacity obligations; is that 6 7 correct? 8 Α. (Hahn) Sure, they can retire -- well, my only hesitation is I actually don't know what the 9 status of their retirement request is with ISO. 10 11 So they can't just shut down. They need to ask 12 ISO-New England for approval and to -- I do not know what the status of that request is, 13 14 whether it's been made, whether ISO has granted 15 it, whether ISO has granted it with conditions. 16 I don't know that. 17 Q. So we really don't know when Pilgrim will shut down at this point, do we? 18 19 Α. (Hahn) I don't believe so, no. 20 Will the Pilgrim shutdown have an impact on the 0. 21 energy and capacity markets that you discussed 22 earlier today? (Hahn) Certainly could, you know, all else 23 Α. 24 being equal, yes.

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1	Q.	Are you aware that, earlier in October, that
2		the Pine Tree Bethlehem biomass-fired plant
3		here in New Hampshire had a catastrophic
4		failure?
5	A.	(Hahn) I was not aware of that.
6	Q.	And that event also occurred after your
7		August 17 update. So is that event included in
8		your analysis?
9	Α.	(Hahn) Well, since I don't know anything about
10		it, I highly doubt it. But
11	Q.	Okay. I'll accept that.
12		Last winter, are you aware that energy
13		prices in New England were moderated because of
14		the availability of a LNG barge that was tanked
15		off the coast of Boston?
16	A.	(Hahn) I recall something to that effect.
17	Q.	But in your update from 2015, is it correct
18		that we see that gas prices this year are lower
19		than they were last year?
20	A.	(Hahn) Yes. That's what market forwards are
21		telling us.
22	Q.	With lower gas prices, do we know at this time
23		whether the owner of a barge full of LNG will
24		park that barge in New England or whether
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they'll sail it somewhere else where they can 1 2 get better prices for their gas this year? MR. SPEIDEL: Mr. Bersak, just a 3 I think that's a little bit too moment. 4 speculative. 5 The entire report 6 MR. BERSAK: 7 is speculative. We're guessing as to what 8 prices will be in the future. I'm just trying to probe as to how correct these prices will be 9 when we actually get to a divestiture. 10 11 MR. SPEIDEL: Well, Mr. Hahn is 12 not an LNG shipper. Mr. Hahn is a consultant. You can phrase it in terms of, "Do you expect 13 that there could be fluctuations in the LNG 14 15 market?" something along those lines. But to ask him, well, if a specific barge floating in 16 17 Boston Harbor... that's a very speculative 18 question. 19 MR. BERSAK: Okay. I'll change 20 the question. 21 BY MR. BERSAK: 22 How about if LNG is not available this winter? 0. 23 Will that affect energy prices in New England? (Hahn) Certainly could. Although, in this 24 Α. $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1		morning's Globe, since we're referencing Globe
2		articles about Pilgrim, we can reference the
3		article about the availability of additional
4		LNG to come into the Distrigas LNG facility in
5		Everett due to a bunch of factors, not the
6		least of which is low worldwide demand for LNG.
7		So, sure. I mean, there's some
8		uncertainty about some of these forecasts. But
9		you try to do the best job that you can using
10		the best available information at the time you
11		made it.
12	Q.	Exactly. But I think we both agree that the
13		market is volatile that we're dealing with and
14		constantly changing. Do you agree with that?
15	A.	(Hahn) Sure.
16	Q.	If you were to redo your August 17th, 2015
17		update today, would the values potentially be
18		different in what you have in that update?
19	A.	(Hahn) They could. I haven't done it, so I
20		don't know exactly for sure. But it's a
21		possibility. It's possible they could go up.
22		It's possible they could go down.
23	Q.	Do you deem the values that you put in both
24		your 2014 report and your updated 2015 report
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		to represent exactly what a willing bidder
2		would pay for each of the generating stations
3		following a divestiture process?
4	A.	(Hahn) Exactly
5	Q.	Yes.
6	A.	(Hahn) what somebody would write a check
7		for? It's my best estimate of what that would
8		be. But do I know precisely who the bidders
9		are and how much bigger check they're going to
10		write? No, sir.
11	Q.	So a willing bidder could pay less than what
12		you've put in for a valuation for a particular
13		plant.
14	Α.	(Hahn) Could pay a lot more, too.
15	Q.	Could pay more.
16		And even if you were to update your
17		report, as Attorney Ross was probing, would
18		your updated report provide values that would
19		be exactly what a willing bidder would pay for
20		each of the assets?
21	A.	(Hahn) Well, any valuation exercise is a
22		forecast. Forecasts don't always predict the
23		future with a hundred-percent accuracy. I
24		don't know anybody that's good enough to do
I		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		that. If I were, I'd be doing other things and
2		making a lot more money, but
3	Q.	We have forecasts from La Capra that you two
4		experts were involved in preparing, we have
5		testimony from Mr. Cannata and from Mr. Chung,
6		all of which are forecasting or guessing at
7		what's going to happen in the future; is that
8		correct?
9	A.	(Hahn) I don't agree with the word "guessing."
10		It's a forecast based on market information
11		that we have. That's the best intelligence we
12		have. Is it perfect? No. Is it guaranteed to
13		be precisely accurate to the dollar? No. But
14		it's a reasonable forecast.
15	Q.	Would you agree that the only way to precisely
16		determine what the generating assets that the
17		Company owns would be following a divestiture
18		process is to actually go through that process
19		and receive bids?
20	A.	That will tell you how big a check somebody's
21		willing to write. Yes, sir, it would.
22	Q.	Do you recall some questions that Attorney
23		Sheehan from the Non-Advocate Staff asked you
24		regarding Mr. Chung's testimony?
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(Hahn) Yes, sir. 1 Α. Do you recall those questions were primarily 2 Q. directed at whether portions of his testimony 3 correctly refer to La Capra Associates reports 4 as the source of the information or whether it 5 should have been Staff reports? 6 7 (Hahn) I recall those questions, sir. Α. 8 Q. Do you have a copy of the April 1 Staff report available? 9 (Hahn) I do. Give me a moment to locate it. 10 Α. Ι 11 believe I have it. Towards the bottom half of that, "Prepared by 12 Q. Staff of the New Hampshire Public Utilities 13 14 Commission" in big print, and then following 15 that next in big print is "La Capra 16 Associates," and then the next one is "ESS 17 Group"; is that correct? 18 (Hahn) Yes. Α. 19 Q. Is there potential for some confusion about the 20 way this report is captioned that could be the 21 basis as to why Mr. Chung, in his testimony, 22 referred to the information coming from La 23 Capra? (Hahn) I think that's a possibility. 24 Α. $\{DE \ 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1	Q.	Do you have any reason to believe that Mr.
2		Chung intended to mislead the Commission or
3		parties to this proceeding?
4	A.	(Hahn) I have no reason for such a belief.
5	Q.	One or two final questions.
6		MR. SHEEHAN: Bob, nor do we,
7		just to be clear. That was not the suggestion
8		of that question at all.
9		MR. BERSAK: I just want to make
10		sure. I've got a nice witness sitting next to
11		me. I just want to make sure you're not trying
12		to impugn what he has to say.
13	BY M	R. BERSAK:
14	Q.	Finally, towards the end of her questioning,
15		Attorney Ross asked you about some questions
16		about load-serving entities, you know, if they
17		were to take over the obligation to serve
18		PSNH's customers following a divestiture
19		process. And regardless of who that willing
20		bidder is who takes on PSNH's load, is it your
21		testimony or did you say some of that
22		incremental costs for that load-serving entity,
23		whoever it is at the margin, would be dictated
24		by the market for both energy and capacity?
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	Α.	(Hahn) I believe that if you were to go out for
2		bids to suppliers, to be the supplier of Public
3		Service of New Hampshire's standard offer of
4		default service, that the bids that you would
5		receive would be based on the outlook at the
6		time those bids are prepared for capacity
7		markets and energy markets. Yes, sir.
8	Q.	Thank you, Mr. Hahn. Thank you, Mr. Koehler.
9		MR. BERSAK: We have no other
10		questions, Mr. Speidel.
11		MR. SPEIDEL: Thank you very
12		much, Mr. Bersak.
13		I would like to open the floor
14		to the Office of the Consumer Advocate, based
15		on the ordering of witnesses. Ms. Chamberlain.
16		MS. CHAMBERLIN: Thank you. I
17		just have a couple of questions.
18		EXAMINATION
19	BY M	S. CHAMBERLIN:
20	Q.	Early in your testimony you were discussing
21		which elements you updated and which elements
22		you kept the same between the 2014 and the 2015
23		reports. And one of the elements was that you
24		kept the dispatch of the Eversource units the
Į		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		same, is that correct, between the two reports?
2	A.	(Hahn) Correct. It was a dispatch of all units
3		in New England, not just Eversource. But yes,
4		you're correct.
5	Q.	So that included Eversource.
6	A.	(Hahn) Yes, it did.
7	Q.	In making the dispatch numbers, did you use any
8		historical data, or was it all forecasted data?
9	A.	(Hahn) Well, we actually began when we did
10		the 2014 study, we were doing an evaluation of
11		the assets as of November 1st, 2015; however,
12		we began our simulations of the ISO-New England
13		market on January 1st, 2013. So we did this
14		study in the last quarter of 2013 and then into
15		the first quarter of 2014. So we did a
16		simulation, and we had some actual data that we
17		could compare it to as a benchmark.
18	Q.	Okay. And that data you received from ISO-New
19		England?
20	A.	(Hahn) Well, the
21	Q.	Actual data of dispatch.
22	A.	(Hahn) The actual megawatt hours is available
23		through various sources, the Energy Information
24		Administration. We subscribe to various data
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

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1		sources that have things like, you know,
2		megawatt-hour output. So it doesn't come from
3		ISO. It comes from a variety of industry
4		sources that we use.
5	Q.	It's either publicly available or available by
6		subscription? Is that fair?
7	A.	(Hahn) Yes, that's correct.
8	Q.	Thank you. That's all I have.
9		MR. SPEIDEL: Thank you, Ms.
10		Chamberlain.
11		I'd like to open the floor to
12		the Office of Energy and Planning. Mr. Aslin.
13		MR. ASLIN: Thank you, Mr.
14		Speidel.
15		First, I wanted to ask if procedurally we
16		could mark the various documents that Mr. Hahn
17		has been referring to as exhibits to this tech
18		session, just for clarity of the record. I
19		think we could dispense with that for
20		testimony. But the three things we were
21		talking about so far are the 2014 La Capra
22		report, the 2014 Staff report, and the 2015
23		update.
24		MR. SPEIDEL: And the results of
I		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	the model explanation. That was the fourth
2	document that I think has been discussed today.
3	And I believe that Ms. Ross proposed that the
4	2014 La Capra report in its confidential form
5	be marked as an exhibit. So that might be a
6	good starting point as Exhibit 1, but as
7	Confidential Exhibit 1. And then the 2015 La
8	Capra update now, as I recall, and perhaps
9	Mr. Hahn can attest to this.
10	Has there been a so-called
11	"public redacted version" of that 2015 update
12	produced?
13	MR. HAHN: I'm sorry. I was
14	consulting with Mr. Koehler. Could you hit me
15	with that one again?
16	MR. SPEIDEL: Sure. The 2015 La
17	Capra update, is there a redacted version and
18	an unredacted version that is, a
19	confidential and a public version that have
20	been produced for that?
21	MR. HAHN: Yes.
22	MR. SPEIDEL: So I would suggest
23	that the confidential version be marked as
24	Confidential Exhibit 2 for the 2015 La Capra
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update. That is the confidential version. 1 And 2 then we have the market model explanation. And again I'm using a paraphrase, but I think we 3 know what I'm referring to. And that would be 4 Confidential Exhibit 3. 5 Then we would have two or three, 6 actually, public exhibits. Public Exhibit 1 7 would be the 2014 La Capra report in its 8 redacted version. And then Public Exhibit 2 9 would be the 2015 La Capra update that's 10 11 redacted --MR. ASLIN: Alex, do you think 12 it makes sense to do them consecutively 13 numbered, the public --14 15 (Court Reporter interrupts.) 16 MR. SPEIDEL: Well, in our 17 practice we like to label them as "Confidential" versus "Public." I think it 18 makes things simpler, and it alerts the 19 20 Commission to the existence of the 21 confidentiality motion. 22 So the final Public exhibit 23 would be the so-called "Staff report of 2014," and that would be Public Exhibit 3. 24 So I think $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

that's a numbering scheme that could make some 1 2 sense. So, did everyone get that? MR. AALTO: Which one was one? 3 The Public or MR. SPEIDEL: 4 Confidential? 5 MR. AALTO: Confidential 1. 6 7 MR. SPEIDEL: Confidential 1 was 8 the unredacted version of the 2014 La Capra 9 report. (Discussion among Non-Advocate Staff.) 10 11 MR. SPEIDEL: Oh, I referred to that as Confidential Exhibit 3, for what it's 12 worth, at least to keep it in mind. 13 14 Now, this numbering scheme is 15 designed to help us keep track of what we're referring to. It's not official. It's 16 17 essentially just for the purposes of today's session we're concurring with this numbering 18 19 scheme. And there is going to have to be an 20 offer of proof at hearing to have them 21 incorporated into the hearing record at 22 hearing. So I accept Mr. Aslin's suggestion, insofar as it helps us keep track of what the 23 heck we're referring to. But once we get to 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

hearing, there's going to be a necessity to 1 2 actually introduce them into the hearing record. Okay? Is there general assent on that 3 point? 4 MS. ROSS: Just a clarification. 5 The 2014 Staff report, I would suggest we 6 number it as Exhibit 4, because we have a 7 Confidential Exhibit 3, which is the model, and 8 I think you had proposed to also number it 9 Exhibit 3. But then you have two Exhibit 3s 10 that really are referring to different 11 12 documents. MR. SPEIDEL: Well, it's kind of 13 the trick because you have the reference to the 14 15 Confidential exhibits, and then you have the Public exhibits. 16 17 MS. ROSS: So you're going to leave it as Public Exhibit 3 then? 18 19 MR. SPEIDEL: For the purposes 20 of this session, just for the simple reason 21 that we need to understand whether the 22 materials we're referring to are confidential or not confidential. It's going to help us out 23 on the written record. 24

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MS. ROSS: 1 Okay. Because if there 2 MR. SPEIDEL: are just a bunch of numbers, consecutive 3 numbers, we're not going to be able to tell 4 which is confidential and which isn't. 5 Okay? All right. So, Mr. Aslin, would 6 7 you like to take the floor? 8 MR. ASLIN: Yes. Thank you, Mr. Speidel. 9 10 EXAMINATION 11 BY MR. ASLIN: Mr. Hahn and Mr. Koehler, thank you for being 12 Q. here today and sitting through the tech 13 14 session. I only have a couple questions to add 15 on to what has already been discussed. The 16 primary question is: In your 2015 update, as I 17 understand it, you essentially updated capacity and energy forecasts, and that was it? 18 19 Α. (Hahn) Yes. 20 What other inputs would you update -- and 0. there's probably many -- but what are the next 21 22 two or three most important factors that would 23 go into a full update that would address valuation of generation assets? 24

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(Hahn) Well, we might have asked the Company 1 Α. 2 to -- scratch that. During our initial 2014 report, the 3 Company provided us with a bunch of its 4 confidential data on the plants: How they're 5 run, what it costs to run them, what their 6 7 expected investments would be in the future. 8 We could probably update that. I don't know 9 whether those have changed or not. I would not expect them to have anywhere near the impact 10 11 that capacity and energy market prices would But I mean that's -- if we were doing a 12 have. new study today, we'd certainly ask for that. 13 I mean, there could be a change in the New 14 15 England generation mix. We heard talk about 16 Pilgrim this morning; so, maybe Pilgrim's 17 departure. We also see talk of the Tri-State Clean Energy RFP. That could have an impact on 18 19 this. So I guess we were aware that there may 20 be other factors, but we certainly believed 21 that these two captured by far the lion's share 22 of the change that occurred from our original 23 report to our updated report. 24 And in regard to your capacity forecast Q.

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1		updates, did those updates take into account
2		current information about expected retirements,
3		expected new generation that's coming into
4		may come into the region?
5	Α.	(Hahn) That we knew at the time, sir.
6	Q.	At the time of the update.
7	А.	(Hahn) At the time of the update. So if that
8		was August, you know, whatever we knew as of
9		August 1st, which is probably the date that
10		we approximate date that we did the update,
11		you know, we had FCA 9 as a known number. We
12		knew what was bid. We knew what qualified.
13		I'm sure there was some capacity that was
14		removed and there was some capacity that was
15		added. But all of that would be included in
16		our 2015 update.
17	Q.	In regard to the energy portion of your update,
18		expected future transmission from Canada and/or
19		gas or gas pipelines, would those factors have
20		been something that changed since 2014 in your
21		analysis?
22	Α.	(Hahn) Well, we did assume a generic Canadian
23		import into the original 2014 model. In 2015,
24		you know, we decided to update for that. Could
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it be higher or lower? Sure. You know, the 1 2 Clean Energy RFP was talked about back then but was not as far along as it is today. It's now 3 been approved by the Rhode Island Commission. 4 And if it hasn't been already approved by 5 Massachusetts and Connecticut, it will be soon. 6 7 So that has the potential to bring in a large 8 amount of renewable imports into New England. 9 But those potential changes were not something Q. that was updated between the 2014 and 2015 10 11 report? (Hahn) No. As I said, we offered or discussed 12 Α. with Staff two options: One is a full-blown 13 update which would have captured all the things 14 15 that we're talking about, or we could do sort of an incremental analysis based on the two 16 17 biggest changes that I think anybody could think of. And given the time constraints, I 18 19 think we opted for the shorter study as opposed to the longer study. 20 With regard to gas price forecasts between 2014 21 Q. 22 and the 2015 update, had there been -- within the gas price forecast, does that incorporate 23 24 current information regarding potential

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1		pipelines, as well as how that would affect the
2		energy prices potentially?
3	Α.	(Hahn) What would give you the best impact of
4		the outlook for natural gas prices are the
5		market forward prices. You can read reports.
6		But at the end of the day, those are
7		exchange-traded transactions for real deals.
8		And that indicated to us that prices the
9		expectation for future prices would decline.
10		So that's what we saw in our 2015 update, and
11		that's what we still see, even if I did it
12		today.
13	Q.	And those updates incorporate all the knowledge
14		that exists in the market, which would include
15		presumably the potential for additional gas
16		capacity.
17	Α.	(Hahn) Yes. Absolutely.
18	Q.	To what extent did environmental regulations,
19		or expected environmental regulations, play a
20		role in your valuation of the assets in 2014,
21		and did that aspect change in any way when you
22		did your update?
23	Α.	(Hahn) Our the reference model that we used
24		for the 2014 La Capra study assumed compliance
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1		with the various renewable portfolio standards
2		and with the various environmental laws. I
3		don't think it expressly included the Clean
4		Power program the EPA has since issued. But it
5		did reflect sort of the compliance with the
6		state of environmental regulation at the time.
7		We didn't update that in the 2015 study.
8	A.	(Koehler) If I could also add there? It did
9		also incorporate an assumed future carbon
10		price, which was not based on any particular
11		regulation in effect, but was intended to
12		reflect the possibility of future regulation of
13		carbon.
14	Q.	So that's the CO2 pricing.
15	Α.	(Koehler) Correct.
16	Q.	Do you have a directional estimate of what the
17		impact of updating your valuations would be
18		based on the current Clean Power Plan and other
19		environmental changes that have taken place?
20		MR. SPEIDEL: That is if I
21		may just object. That's a very large, very
22		broad question. The Clean Power Plan I
23		understand is something like a thousand-plus
24		pages, at least, 1500 I hear from my
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	o /
1	consultant. Mr. Hahn and his associate, Mr.
2	Koehler, are very intelligent men, but I don't
3	think they have the number-crunching power of
4	IBM's Watson on hand. So, perhaps a more
5	narrowly tailored question, Mr. Aslin?
6	MR. ASLIN: Certainly.
7	BY MR. ASLIN:
8	Q. Let's narrow it down to the expected CO2
9	regulations for 2020. What impact would
10	that would you expect that to have in the
11	valuations?
12	MR. SPEIDEL: Well, it's kind of
13	the same question.
14	MR. ASLIN: Well, no, it's a
15	more detailed question.
16	MR. SPEIDEL: Well, I think you
17	would have to understand that whatever answer
18	you receive is extremely speculative. We're
19	willing to allow some level of speculation at a
20	technical session, with the understanding that
21	it doesn't have a lot of analytical
22	consideration behind it. I think Mr. Hahn has
23	an understanding and an educated guess of what
24	might come out of the Clean Power Plan. But
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there's many moving parts in play there. 1 2 MR. ASLIN: I'd respectfully agree that you can make an estimate of 3 directionality. That's all I was asking. 4 MR. SPEIDEL: Well, in terms of 5 a general trend in directionality, with the 6 7 understanding that it would be limited, we'll 8 allow that question. Mr. Hahn? 9 (Hahn) All right. Can someone refresh my 10 Α. memory of what the question is? 11 BY MR. ASLIN: 12 Absolutely. With regard to the anticipated --13 0. 14 or the CO2 price regulations that are going 15 into effect in 2020, what direction would that 16 push your asset valuations? 17 Α. (Hahn) I don't know. I haven't done that. And 18 that's far more complicated than saying, you 19 know, natural gas price futures are down, so we 20 expect LMPs to go down. If you're referring to 21 the Clean Power program, the first threshold in 22 2020 -- is that what your question deals --23 BY MR. ASLIN: 24 Q. Yes.

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1	Α.	(Hahn) Haven't looked at it for New Hampshire.
2		It's on a state-by-state basis. I don't know.
3		So I can't answer your question whether it
4		would what direction it would go in.
5	Q.	Okay. Thank you.
6		MR. ASLIN: Oh, yeah, just for
7		the record, I wanted to make it clear that the
8		Confidential Exhibit 3, which is the New
9		England model report, is not something that the
10		parties have. I think Staff maybe has and
11		Advocate Staff.
12		MR. SPEIDEL: Yes. So the
13		reason it was assigned, again, a numbering
14		scheme for purposes of this technical session
15		is so that folks can follow along, not for the
16		purposes of marking at the hearing, because
17		Ms. Ross made a few references to it.
18		MR. ASLIN: And I just wanted to
19		clarify for the record that that issue of that
20		report has not been the confidentiality of
21		that report is not being challenged, but
22		there's also been not a request for it at this
23		time. Most of the parties do not have it in
24		their possession.
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MR. SPEIDEL: That's correct. 1 The consultants of Staff have indicated that 2 they believe that to be confidential in toto 3 within their motion for confidential treatment. 4 5 MR. ASLIN: Yes, I think we're understanding each other. 6 7 MR. SPEIDEL: Okay. And are you 8 complete with your questioning, sir? 9 MR. ASLIN: I was about to say, yes, we have no further questions at this time. 10 Thank you. 11 12 MR. SPEIDEL: Thank you very I think it's time for a break, a 13 much. ten-minute break. Could we please reconvene at 14 15 11:25? Thank you very much. (Whereupon a brief recess was taken at 16 17 11:13 a.m., and the proceedings resumed 18 at 11:27 a.m.) 19 MR. SPEIDEL: Okay. I think 20 we've gone through all of the -- that is, the 21 moving party, the Company, and all the 22 state-affiliated questioners. And the next questioner will be Mr. Aalto. Doesn't get any 23 24 more alphabetical than that, two As.

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So would you like to begin, Mr. 1 Aalto? 2 And are we on the record? 3 Ι presume, yes. Thank you. 4 MR. AALTO: Is this machine 5 working at this point? 6 7 MR. SPEIDEL: I would hope so. 8 Yes, it sounds like it. 9 MR. AALTO: Thank you. 10 EXAMINATION 11 BY MR. AALTO: Thank you very much, and welcome to New 12 Q. Hampshire. 13 (Hahn) Good to be here, Mr. Aalto. 14 Α. 15 I had a couple of questions about your model Q. 16 and how you use it. Did you try to calibrate 17 your model's output for some of the past couple of years with actual data on cost from the 18 19 utility? 20 (Hahn) Not cost. But as I said, we began our Α. 21 simulation in January of 2013. And so when we 22 began this work in September-ish of 2013, we 23 had some actual data for the output. And what we focused on was the output of the PSNH units. 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1	Q.	But you do not have, then, any sense of how
2		much money the plants might have produced in
3		terms of net income during those years other
4		than through the model itself.
5	A.	(Hahn) Well, we didn't estimate historically
6		whether these plants made money or lost money.
7		We did not do that, sir.
8	Q.	All right. Would that kind of data have been
9		available to you if you chose to go that route,
10		or is that confidential?
11	A.	(Hahn) Well, that data is not available to us.
12		It is available to Public Service of New
13		Hampshire because they would receive a
14		statement each week, and eventually each month
15		from ISO-New England telling them what their
16		revenues are. And their accounting system
17		would tell them what the costs are. So I would
18		not have access to that without the cooperation
19		of the Company.
20	Q.	Presumably the Commission would have access to
21		that in terms to work up rates.
22	A.	(Hahn) I can't answer that question.
23	Q.	Speculation. Well, I guess I would assume that
24		it's there.
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There's been discussion in some of the 1 2 record -- and I don't know exactly where it is -- it refers to statements by the utility 3 that during the winter there was a -- with the 4 price spikes, the existence of the plants they 5 had provided income to them or savings to the 6 customer of \$150 million. Does that sound like 7 8 a reasonable number to you based on your assessment of the numbers? 9 This was for a couple months of operation. 10

(Hahn) Well, that's one of the data requests 11 Α. 12 that I reviewed from Mr. Smagula. I've not looked at the underlying analysis of that, so I 13 can't say for sure. The question is worded 14 15 "production cost savings." And that could be -- and I say "could be" -- or is frequently 16 17 deemed to be the variable fuel and O&M costs of 18 the PSNH units versus market LMPs and capacity 19 prices. And so that may or may not be the 20 whole equation. But as I said, I have not done 21 an analysis of that data request, so I don't 22 know. I guess the purpose of the question was, are 23 Q.

24

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these power plants making money today, and

1		that's not a part of your study in any detail?
2	A.	(Hahn) No. Our study was prospective in
3		nature. It began the original 2014 study
4		began the analysis of the financial pro
5		formas began in January of 2015, and the update
6		was January 2016. So we did not do a
7		retroactive look, sir.
8		MR. AALTO: Thank you. I would
9		like to if my understanding is correct, we
10		can come back for more questions later. But I
11		think I'm done for the moment.
12		MR. SPEIDEL: Okay, Mr. Aalto.
13		Thank you.
14		MR. AALTO: Thank you.
15		MR. SPEIDEL: I believe the next
16		party in alphabetical order would be CLF.
17		EXAMINATION
18	BY M	S. FRIGNOCA:
19	Q.	Good morning.
20	A.	(WITNESS PANEL) Good morning.
21	Q.	Just want to I have some questions to
22		clarify, first.
23		When you did the initial report, the 2014
24		report, you worked with sort of a
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1		subconsultant, ESS. That's correct; right?
2	A.	(Hahn) That's correct.
3	Q.	What was the purpose of having ESS work with
4		you?
5	A.	(Hahn) Well, one of the things we wanted to
6		know was were there environmental liabilities
7		associated with these plants that could have a
8		significant impact on an asset valuation. And
9		so ESS is an environmental consulting firm. La
10		Capra is not. And so we partnered with them,
11		as we have done in several other projects, and
12		asked them to take a look at that issue. They
13		spent some time with the Company's management
14		and personnel. They looked at records that the
15		Company had. They did conclude that there was
16		a potential for certain investments, but there
17		was no assurety that those investments would be
18		required. Closed-loop cooling was, I think,
19		the biggest issue they identified. But they
20		said that, you know, there was no specific
21		requirement for them for the Company to make
22		that investment at this time. And the Company,
23		I don't believe, forecasted that in their
24		capital addition. So we did not include it.
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1	Q.	Okay. I'm going to backtrack to make sure I
2		understand.
3		You contracted or entered into or
4		contracted to have ESS do the environmental
5		review because that's not your area of
6		expertise.
7	Α.	(Hahn) Correct.
8	Q.	So you know that. And so when it's important
9		to look at those costs, you work with a company
10		like ESS.
11	A.	(Hahn) Yes.
12	Q.	And in doing a valuation, it appears from your
13		2014 report that it was important to look at
14		environmental compliance costs when looking at
15		the valuation of these plants going into the
16		future.
17	Α.	(Hahn) Yes.
18	Q.	So at this time, when you did your 2015 update,
19		did you ask ESS to do any update of the
20		likelihood that these environmental costs would
21		come the costs that they had looked at, did
22		you ask them to do any update on whether those
23		costs are more likely now?
24	Α.	(Hahn) We did not. Again, the update was
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1		limited to the two changes that we talked
2		about.
3	Q.	Okay. So you have not, in preparing for this
4		deposition, consulted with ESS?
5	A.	(Hahn) No.
6	Q.	And in preparing your 2015 update, you did not
7		consult with ESS?
8	A.	(Hahn) No.
9	Q.	You would still agree that, if you were going
10		to do a full update rather than the limited
11		update for which you were engaged, you would
12		consult with ESS?
13	A.	(Hahn) I don't know if I would. I would
14		certainly consider it. Again, if you look at
15		the process that we went through originally,
16		you know, the Company, Public Service of New
17		Hampshire, was very good about providing us
18		information about their plants. So one of the
19		first things we might do in a full update is
20		speak with them first before we engaged ESS.
21		But it's theoretically possible, if we were
22		required to do a full update of the asset
23		valuation study, that we would want to speak to
24		ESS.

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Okay. 1 Q. 2 Α. (Hahn) But that situation has not been proposed to us. 3 4 0. Let me be more -- let me ask a more pointed 5 question then. If you were asked to do a full update, would you consider environmental 6 7 compliance costs, whether you got the 8 information from the Company or from ESS? 9 (Hahn) Sure. Yes. Absolutely. Α. And would you agree that those environmental 10 0. 11 compliance costs are important in part because 12 they are going to affect the future O&M costs for each facility? 13 14 (Hahn) Well, they could. I don't know if they Α. 15 would. But they could, sure. They could 16 require additional capital investments that 17 were not included in the Company's forecast. Τ mean, that's inherently part of the uncertainty 18 19 in any asset valuation. 20 All right. And you've already testified you 0. 21 don't quite know what the impacts will be of 22 the Clean Power Plan? 23 (Hahn) That's right. I have not analyzed that. Α. 24 And that's, as we talked about, a complex $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

1 issue.

2	Q.	And are you familiar with the Steam Electric
3		Power Generating Effluent Guidelines, or ELGs?
4	A.	(Hahn) That term does not sound familiar to me.
5		Maybe I know it by a different name, but it
6		does not sound familiar.
7	Q.	Okay. How about the Federal Coal Ash Rule?
8	Α.	(Hahn) Again, I'm not an environmental engineer
9		and don't have that's not the kind of thing
10		that La Capra would look at.
11	Q.	Okay. Are you familiar with any updates to
12		those NPDES permits or 316-B requirements under
13		the Clean Water Act that would require
14		closed-loop cooling systems or towers to be
15		installed at Schiller, Merrimack and Newington
16		stations?
17	Α.	(Hahn) As I said, we do not.
18	Q.	You do not have any information about that.
19		MS. FRIGNOCA: I just want to
20		note for the record that that's all the
21		questions I have for now, in part because
22		having just been given the Confidential version
23		of the technical report, I haven't had a chance
24		to look through it and develop more detailed
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100 questions. But I am all done. 1 2 MR. SPEIDEL: Thank you very much. 3 The next person up I think would 4 be Mr. Cronin. 5 6 EXAMINATION 7 BY MR. CUNNINGHAM: Yes, I just have a few questions on Page 2 of 8 0. 9 your 2014 report. (Hahn) You said Page 2 of the 2014 La Capra 10 Α. report, sir? 11 The second full paragraph of your report. 12 Q. MR. SPEIDEL: That would be 13 14 Public Exhibit 1, Mr. Cunningham? 15 MR. CUNNINGHAM: Yes. 16 BY MR. CUNNINGHAM: 17 0. I'm just going to read a quote. "We relied heavily on PSNH data and projections related to 18 19 plant operating characteristics, costs and 20 revenues." 21 Could you identify for me what precise 22 documents you looked at? 23 (Hahn) I don't know if I can point a finger to Α. 24 a precise document. But we asked them, for $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

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1		example, what the heat rates were, what their
2		variable O&M was, what their other O&M cost was
3		going forward. We asked them about capital
4		investments. It was our belief that, as the
5		operator of the plants, they would have a very
6		good handle on that. So we used that data that
7		we received from them.
8	Q.	Did they produce the data in written form?
9	Α.	(Hahn) I'm sure they did. I don't recall a
10		specific document, but I'm sure that it wasn't
11		all verbal, if that's your question.
12	Q.	And do you still have those documents in your
13		possession?
14	A.	(Hahn) That I do not know. I don't know
15		whether we returned them or whether we kept
16		them. I don't know.
17	Q.	And were any of those documents deemed
18		confidential?
19	Α.	(Hahn) Yes.
20	Q.	Which of those documents were deemed
21		confidential?
22	Α.	(Hahn) Well, I think the forecast of O&M costs,
23		the forecast of capital investments, that would
24		be confidential. If I were the Company, I
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1		would not want that information out into the
2		public. Heat rate. Again, it's a competitive
3		market in New England. And all of that
4		information, if made public, could be used
5		potentially to the detriment of the Company.
6		So it's not unusual to have information like
7		that deemed to be confidential, in my opinion.
8	Q.	And did you look at any data or such reports
9		that predated January 1, 2013?
10	A.	(Hahn) I'm sorry, sir. I don't understand the
11		question.
12	Q.	Well, you said the cutoff date for your
13		analysis was January 1 of 2013. Correct me if
14		I'm wrong.
15	A.	(Hahn) That's when we began the hourly dispatch
16		simulations for the New England market model.
17	Q.	Okay. And so if I understand that, did you
18		look at O&M data, capital projection expense
19		data that predated January 1, 2013?
20	A.	(Hahn) There was actual data on these plants
21		available from the FERC Form 1 that gave you an
22		aggregate level of spending. That's publicly
23		available data that the Company files with the
24		Federal Energy Regulatory Commission, or FERC.
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1		(Discussion between witnesses)
2	А.	(Hahn) And Mr. Koehler just confirmed for me
3		that the subscription service that we subscribe
4		to also has historical information on the
5		plants.
6	Q.	Did you look at any actual PSNH documents that
7		predated January 1, 2013, aside from the FERC
8		filings?
9	Α.	(Hahn) I don't recall, sir. Something I'd have
10		to go check. I don't recall, as I sit here,
11		whether there were documents before
12		January 1st, 2013 or not.
13	Q.	And do you recall whether or not you looked at
14		the FERC documents?
15	Α.	(Hahn) I think I did, yes.
16	Q.	And did they play a role in your calculations?
17	Α.	(Hahn) It appeared to me that the forecast the
18		Company had given us was consistent with that
19		historic data, so we used it as a check. We
20		didn't do a formal analysis of 10 years' worth
21		of FERC Form 1 data, if that's what you're
22		going to ask. No, we didn't do that.
23	Q.	All right. And in that same paragraph, it
24		indicates that PSNH has done its own recent
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1		valuation study. Did you see that study?
2		(Witness reviews document.)
3	Α.	(Hahn) Well, it says PSNH did not offer its own
4		valuation study.
5	Q.	Let me ask you this: Did you ask for it?
6	A.	(Hahn) If your question was, did we ask the
7		Company whether it had a valuation study or
8		not
9	Q.	Yes, sir.
10	Α.	(Hahn) I don't recall that we did.
11	Q.	From the language in this paragraph, it
12		indicates that you knew of the existence of the
13		study; correct?
14	Α.	(Hahn) I'm not sure that I would interpret that
15		statement that way. But again, I just don't
16		recall whether we asked them for I don't
17		believe we asked them for it, if that's your
18		question. Whether we knew of it, I don't
19		recall.
20		MR. SPEIDEL: Mr. Cunningham, I
21		think the language reads, "did not." That is a
22		negative; therefore, there was no study
23		prepared. I think that's the indication in
24		that language.
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1		MR. CUNNINGHAM: Well, I
2		disagree, Mr. Speidel.
3		MR. SPEIDEL: Okay. Just
4		MR. CUNNINGHAM: It specifically
5		identified that it "had its own recent
6		valuation study." So I'm just inquiring what,
7		if any, use that La Capra made of such a study,
8		if any.
9	Α.	(Hahn) Well, my read of that statement is
10		consistent with Mr. Speidel. So I'm not
11		sure I don't believe we knew that the
12		Company had one, and we didn't ask for it.
13	Q.	Just one last question. I'm particularly
14		interested in your conclusion on Page 68, 10.1,
15		DCF Results - Merrimack Station.
16	Α.	(Hahn) Are you referring to Page 68 of the 2014
17		report, sir?
18	Q.	That's right.
19		The only reason I ask is, if you look at
20		that last sentence, EB how do you EBDA?
21	Α.	(Hahn) EBITDA.
22	Q.	Quickly explain that, would you, please?
23	Α.	(Hahn) It's an acronym that stands for Earnings
24		Before Interest, Taxes, Depreciation and
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1		Amortization. It is a standard term in the
2		financial accounting industry to measure
3		whether a company or an asset is profitable
4		before all of those other things.
5	Q.	And it's a pretty standard application, is it
6		not, to analyze the worth of a company?
7	A.	(Hahn) If you wanted to analyze the worth of a
8		company, you would look at EBITDA.
9	Q.	In other words, any business appraiser would
10		look at that formulation.
11	Α.	(Hahn) I believe they would, sure.
12	Q.	Sure. And it goes on to say, "EBITDA is not
13		only insufficient to support ongoing financing
14		and expenses and additional capital
15		expenditures, it is negative for most of the
16		remaining life," and so on. "In five of our
17		six scenarios, projected cash flow for the
18		plant is insufficient to provide a reasonable
19		internal rate of return on equity at any price,
20		so the DCF value is zero."
21		Now, you indicated in response to an
22		earlier question that you weren't asked to do a
23		divestiture analysis.
24	A.	(Hahn) I did say that, yes. I was not asked to
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1		do that.
2	Q.	Can you draw any conclusions from that
3		statement on whether or not this Merrimack
4		Station should be divested?
5	A.	(Hahn) Well, if you look at the results of our
6		study, on a DCF, or discounted cash flow basis,
7		Merrimack, over the next 15 years, from
8		January 2015 to I think the last year of our
9		analysis was the year 2030. So, over that
10		15-year period there was insufficient EBITDA to
11		support the other fixed costs and a positive
12		sale price. You can draw conclusions from
13		that. But that's not an analysis that's not
14		the analysis that was in the question that was
15		asked previously.
16	Q.	Well, beyond that analysis, what other
17		information would you need to make a
18		divestiture analysis?
19	A.	(Hahn) Well, as in our report, we try to
20		identify comparable market sales. I think
21		comparable market sales is useful if you're
22		selling similar assets. This one, in this
23		particular case, we didn't have many comparable
24		market sales. And the ones we had for other
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1		power plants weren't necessarily relevant to
2		these. So we did rely heavily on the DCF
3		analysis. That's stated in our report.
4	Q.	So that would be a major analytical point in
5		determining whether or not divestiture was
6		appropriate for Merrimack Station?
7	A.	(Hahn) I think you could take the EBITDA
8		estimates from our report with some other data
9		and use that in an analysis of ratepayer
10		benefits. I just need to tell you that we did
11		not do that.
12	Q.	I understand. Thank you.
13		MR. CUNNINGHAM: That's all the
14		questions I have.
15		MR. SPEIDEL: Thank you, Mr.
16		Cunningham.
17		I believe in the order of
18		questioning, the next entity would be Granite
19		State Hydro Association.
20		MR. NORMAN: We have no
21		questions.
22		MR. SPEIDEL: No questions.
23		Therefore, I believe among the parties that are
24		present here, the next party would be NEPGA,
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actually. 1 2 MS. HOLAHAN: I'm going to --Attorney Allegretti from RESA is going to ask 3 questions on behalf of NEPGA today. 4 (Discussion between Mr. Hahn and Mr. 5 Speidel.) 6 7 MR. SPEIDEL: If you would care 8 to. Just one moment, please. 9 10 There's an additional clarification from Mr. 11 Hahn regarding one of Mr. Cunningham's questions on behalf of Mr. Cronin. 12 (Hahn) Mr. Cronin [sic] asked about whether we 13 Α. 14 inquired whether Public Service of New 15 Hampshire had an asset valuation study of their 16 own. During a hiatus, Mr. Koehler reminded me 17 that we did ask for that, and the Company said they didn't have one. So that's why that 18 19 interpretation of that, "did not have its own 20 valuation study," is what I believe to be 21 correct. 22 MR. SPEIDEL: Thank you, Mr. 23 Hahn. 24 Therefore, I will invite Mr. {DE 14-238} (TECHNICAL SESSION) $\{10-26-15\}$

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1		Allegretti of RESA to ask questions on behalf
2		of Granite State Hydro Association
3		MS. HOLAHAN: No, on behalf of
4		New England Power Generators Association.
5		MR. SPEIDEL: Oh, I'm sorry.
6		NEPGA, yes. Everyone's so excited about that.
7		EXAMINATION
8	BY M	R. ALLEGRETTI:
9	Q.	Hello, Mr. Hahn. Nice to see you again.
10	Α.	(Hahn) Nice to see you, Dan.
11	Q.	Earlier you referred to the Tri-State's Clean
12		Energy RFP and its potential to bring a large
13		quantity of renewable imports into New England.
14		If those imports are offered into the ISO-New
15		England energy market at a zero bid price
16		taker, all other things being equal, will that
17		have an impact on energy prices?
18	Α.	(Hahn) Yes, if you add cost-effective supply in
19		a competitive market and demand doesn't change,
20		prices should go down.
21	Q.	That's my question. Thank you.
22		MR. SPEIDEL: Very good. Does
23		RESA have any questions to ask on its own
24		account? No.
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Therefore, I think we've reached 1 2 Berlin and Gorham among the parties present here today. Would you be able to ask -- I'm 3 sorry. Oh, TransCanada. I'm sorry. 4 5 MR. PATCH: I just wanted to note for the record we don't have any 6 7 questions. 8 MR. SPEIDEL: Sorry about that. I just wanted to check in with 9 Berlin and Gorham because we're getting close 10 11 to the time. Would you be able to ask the 12 questions without the presence of Attorney Boldt? 13 14 MR. MAHER: Yes. 15 MR. SPEIDEL: Very good. So, 16 hearing that TransCanada has no questions, I invite the Cities of Berlin and Gorham's 17 18 attorneys to ask questions. 19 EXAMINATION 20 BY MR. MAHER: 21 Q. Good afternoon, gentlemen -- or good morning. It's still --22 23 (Hahn) Close enough. Α. Were you the sole preparer of the 2014 report? 24 Q. {DE 14-238} (TECHNICAL SESSION) {10-26-15}

1	A.	(Hahn) The vast majority of that report was
2		written by Mr. Koehler and I. Obviously there
3		were others at La Capra who worked on this
4		project.
5	Q.	Can you state the names of the other
6		individuals at La Capra that helped you on this
7		project?
8	A.	(Hahn) Oh, sure. Demetrios Kordonis,
9		K-O-R-D-O-N-I-S, assisted us with a capacity
10		price forecast. I think Jeff Bower, B-O-W-E-R,
11		helped us with some of the financial analysis
12		and the market comps, looking to try and see
13		what other utility assets had been sold. I
14		think Ms. Carrie Gilbert, C-A-R-R-I-E,
15		G-I-L-B-E-R-T, would likely have assisted with
16		the renewable build-out that was in our
17		reference case. I think that's the bulk of
18		them. But there may have been others that had
19		small roles.
20	Q.	Are either of you or anyone that assisted you
21		certified real estate appraisers?
22	A.	(Hahn) I am not, no.
23	Q.	What about you, Mr. Koehler?
24	A.	(Koehler) I am not.
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1	Q.	And to your knowledge, are any of the
2		individuals that you just named certified real
3		estate appraisers in the state of New Hampshire
4		or elsewhere?
5	A.	(Hahn) They are not.
6	Q.	Okay. Are you familiar with the Uniform
7		Standards of Professional Appraisal Practice,
8		USPAP?
9	A.	(Hahn) I have heard of that. Yes, sir.
10	Q.	Is this is either the 2014 report or the
11		2015 report compliant with any of the standards
12		of USPAP, to your knowledge?
13	A.	(Hahn) I don't know. We prepared an energy
14		asset valuation based on techniques that we
15		have used for numerous other energy assets, and
16		that's what was provided here. We're not doing
17		a real estate appraisal.
18	Q.	Okay. So you said this is not a real estate
19		appraisal; correct?
20	A.	It's an asset valuation. If you want to call
21		that a real estate appraisal, fine. We did an
22		asset valuation based upon market conditions
23		and comparable sales.
24	Q.	Does it include good will? Is it a business
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1		valuation that would include intangible items
2		such as good will?
3	A.	(Hahn) We were valuing the assets. There would
4		be no good will.
5	Q.	Okay. Do you maintain a work file for the
6		asset valuations?
7	Α.	(Hahn) I'm not sure I understand the question.
8	Q.	I imagine that in producing the 2014 report you
9		compiled significant amounts of data, market
10		studies, et cetera. Do you maintain that
11		information, those documents, in a file that
12		you can reproduce in order to support the
13		conclusions in your 2014 and 2015 reports?
14	A.	(Hahn) Well, I believe we would have some data.
15		Again, I'm not sure that we still have
16		information we may have gotten from the
17		Company. That would be something we need to
18		check. But yes, we would have documents of
19		that type.
20	Q.	If requested, and if a party was willing to
21		sign a confidentiality agreement, would you
22		produce that to me?
23		MR. SPEIDEL: Again, I would
24		like to interject that that would be subject to
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Non-Advocate Staff's authorization. 1 2 MR. MAHER: Understood. And just to mirror Attorney Ross's statement, it's 3 understood that those sorts of requests are at 4 Non-Advocate Staff's authorization. 5 6 MR. SPEIDEL: You may continue. 7 MR. MAHER: Thank you. BY MR. MAHER: 8 9 Did you rely upon any comparable sales that are ο. 10 not -- considered any comparable sales that are 11 not discussed in your 2014 report? (Hahn) I don't believe so. 12 Α. What was your criteria for selecting your 13 Q. 14 comparable sales? 15 (Hahn) We tried to look at asset sales that we Α. 16 knew about that we could research, do secondary 17 research. So it was based on general intelligence that we had. 18 19 Q. Did you look back a certain amount of time? 20 Was there a geographic limitation? (Hahn) I'm sure there was, but I don't recall 21 Α. 22 those details. Okay. So if I were to ask you, did you go back 23 Q. as far as, say, 2006, you wouldn't be able to 24 $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

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1		tell me?
2	A.	(Hahn) Not today.
3	Q.	In terms of geographic scope, you wouldn't be
4		able to tell me today.
5	A.	(Hahn) That's correct.
6	Q.	In your files, do you have if you were able
7		to look at and produce your file, would that
8		inform you?
9	A.	(Hahn) It might. Whatever is there will be
10		there.
11	Q.	Did you review or consult any sales for your
12		2015 update that was not used in your 2014
13		report?
14	A.	(Hahn) No.
15	Q.	I notice that this is a DCF analysis. Now, did
16		you prepare an actual spreadsheet or similar
17		document that shows the entirety of your
18		discounted cash flow?
19	A.	(Hahn) Yes.
20	Q.	Is that something that can be produced, in your
21		possession?
22	A.	(Hahn) Well, I think that's a question for Mr.
23		Speidel. We have it.
24		MR. SPEIDEL: Again, I must
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1	interject that such document production would
2	be subject to Non-Advocate Staff's
3	authorization. Insofar as the witnesses
4	present here today did not submit testimony on
5	behalf of Non-Advocate Staff in this docket,
6	therefore the usual rules of discovery do not
7	apply as it relates to such documentation.
8	However, we will consider such request for
9	documentation on a case-by-case basis. But we
10	will oppose any attempt to mandate it against
11	our will.
12	MR. MAHER: I'm just trying to
13	make sure that the record reflects the City of
14	Berlin's position that we are requesting these
15	documents and Non-Advocate Staff's position as
16	to those requests.
17	MR. SPEIDEL: Well, we would
18	have to see such requests in writing, I
19	believe.
20	MR. MAHER: I could resubmit our
21	request for documentation that was tendered to
22	Non-Advocate Staff, I believe it was on
23	October 16. I have a copy. I can resubmit it,
24	and I would like it to be made an exhibit to
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this deposition. 1 MR. SPEIDEL: I believe the 2 Commission denied that request for relief. 3 Ιt was embedded within a motion to the Commission, 4 as I recall. It wasn't --5 MR. MAHER: That is correct. 6 7 MR. SPEIDEL: The same documents 8 are being requested; is that correct? 9 MR. MAHER: Essentially, yes. Yes, with the exception of the unredacted copy 10 11 of the 2014 report. 12 MR. SPEIDEL: Which you have 13 now. MR. MAHER: Correct. 14 15 MR. SPEIDEL: Well, Non-Advocate 16 Staff will take that under advisement. Thank 17 you. MR. MAHER: Thank you. 18 19 MR. SPEIDEL: Is that all? 20 MR. MAHER: No, I have still 21 quite a bit. 22 MR. SPEIDEL: Go on. Sorry. 23 BY MR. MAHER: 24 What source documentation do you have to Q. {DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		support your revised forecast for the price of
2		power in your 2015 update?
3	Α.	(Hahn) We have the updated capacity price
4		forecast and the updated natural gas price
5		forecast.
6	Q.	And from what is that natural gas forecast
7		derived?
8	Α.	(Hahn) Well, the methodology is the same as
9		what is described in our 2014 report. It's
10		just the information available to us was
11		available in July and August of 2015 instead of
12		the first half of or the first few months of
13		2014. So the methodology that's described is
14		the same, but the market intelligence and the
15		price outlooks and actual deals we might have
16		looked at were different.
17	Q.	I notice in the 2014 report that it says you
18		relied upon AURORA as part of your forecast,
19		but then you produced the I believe it's
20		Confidential Exhibit 3 market analysis or
21		the and I'm not sure exactly how it's been
22		labeled. What was done to the AURORA forecast
23		in order to come up with your reference
24		scenario?
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1 A. (Hahn) In the 2015 update?

2 Q. I'll start with 2014.

(Hahn) Okay. AURORA is a model that simulates 3 Α. the dispatch of an electric system. The model 4 that we used can be used to dispatch the entire 5 grid in the entire electric United States. 6 We used it focusing on New England in an analysis 7 8 like this. And if you understand the ISO energy market, bids are offered, load is there, 9 you choose the best bids, least cost bids to 10 11 serve the load. AURORA does the same thing 12 with similar inputs. It's an hourly dispatch model. And so that gave us the hourly LMPs in 13 the 2014 La Capra study. 14

15 Now, as I said, in 2015, we did not redo 16 the dispatch. We kept the output of all the 17 units, including the Public Service units, the 18 same, but adjusted energy market revenues for lower natural gas prices. 19 There is an 20 extremely high correlation between natural gas 21 prices and electric prices. So we felt very 22 comfortable doing that.

Q. When you look at natural gas prices, is that at
 Henry Hub, or is that Algonquin Citygate?

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1	Α.	(Hahn) Algonquin well, we look at both. But
2		of primary importance here is the generally
3		accepted New England hub for natural gas
4		delivered to New England, which is the
5		Algonquin Citygate price. There are price
6		differences between there and other points in
7		New England. They tend to be small. So there
8		is a the focus of the natural gas price
9		forecast, if you will, is the Algonquin
10		Citygate price.
11	Q.	Did you adjust for did you adjust any of the
12		AURORA forecasts in coming up with your
13		reference scenario? Did you add any inputs,
14		any additional considerations or assumptions
15		that would not normally be included in AURORA's
16		projection?
17	Α.	(Hahn) In the 2015 update?
18	Q.	2014. Excuse me.
19	Α.	(Hahn) We began with our sort of reference case
20		model which we use for lots of different work
21		in New England. We did not change that
22		specifically for this project.
23	Q.	Okay.
24	Α.	(Koehler) If I can just clarify that? We did
Į		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		make some in the 2014 report, we did make
2		some changes based on confidential information
3		from PSNH on operating characteristics and the
4		like, but relatively minor details. So, as a
5		whole, the forecast was similar to our base
6		case.
7	A.	(Hahn) But we didn't add additional generating
8		units or retire generating units. They were
9		the same.
10	Q.	Okay. I wasn't sure. Did you include any
11		market conditions into that forecast that
12		otherwise does not exist at the present?
13	Α.	(Hahn) I'm not sure what you mean by that
14		question, sir.
15	Q.	Well, I've heard reference that you considered
16		the existence of future carbon legislation.
17		Did you consider any other factors that could
18		have impacted the market?
19	A.	(Hahn) Well, I testified earlier that we did
20		assume compliance with renewable portfolio
21		standards. That's a standard assumption in our
22		modeling. Can't think of any others, but so
23		I hope there aren't any.
24	Q.	And I note with O&M specifically excuse me.
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1		I'm just trying to go through and make this as
2		streamlined as possible. Let me back up.
3		Did you use a particular definition of
4		"fair market value"?
5	A.	(Hahn) We focused on the value that was
6		generated by a discounted cash flow. As I
7		said, we looked at the market comps. But
8		because of the relative what's the word I'm
9		looking for unavailability of comparable
10		sales, we focused heavily on the discounted
11		cash flow. To the extent you deem a discounted
12		cash flow to give you a fair market value, then
13		we did.
14	Q.	Well, did you consider a hypothetical buyer
15		when you were generating your 2014 report? Was
16		there a specific type of buyer in mind?
17	Α.	(Hahn) We did not identify a specific buyer,
18		such as a merchant generating company or a
19		hedge fund or something like that because we
20		believe that they would come up with a similar
21		discounted cash flow analysis that we did, and
22		that that would be the basis of the bid. So,
23		no, we did not assume a particular type of
24		buyer.
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Q.	But I note at the end of your 2014 report that
	you state something to the effect that the
	bundling of the hydro assets, or some of the
	hydro assets, might yield the biggest price
	rather than selling them off
	station-by-station. Does that envision a
	specific type of buyer in that scenario?
А.	(Hahn) I don't think it does. I mean, again,
	those units had I think the highest or second
	highest positive discounted cash flow results.
	So, no, I don't think it does assume a
	particular type of buyer.
Q.	Did you look at any projections with regard to
	power generation that would indicate either a
	future increase or decrease of energy as a
	result of consumption trends or increased
	industrial activity?
А.	(Hahn) We did not consider sensitivities, a
	higher or a lower load forecast, if that's what
	you're asking about. No, we didn't. We did
	focus on higher and lower natural gas prices.
	We did look at a Forward Capacity Market
	scenario that had a high retirement scenario.
	But sensitivity to load forecast was not among
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	A. Q.

1 them.

2	Q.	So am I to understand that, in order to
3		determine the amount of power generated, you
4		based that off of historic data, with the
5		exception of Smith, in which you I believe
6		you said that you relied upon the certified
7		generation by FERC?
8	Α.	(Hahn) I'm not sure I understand the question.
9		But Mr. Koehler thinks he does, so
10	A.	(Koehler) I think I understand the confusion

here. For the most part, AURORA dispatches units, as Dick described it. So, to the extent there's any projections of PSNH unit output in the future, it's taken from the dispatch that AURORA has generated, you know, which is the hour-by-hour decisions. And we just take that output in the model.

Hydro units in AURORA are treated zonally. So, inputs for how they operate are taken at the aggregate level for a zone. So, all New Hampshire hydro, the units are all in there. But in terms of how they operate with pondage, with their ability to capture peak, that's all taken at the aggregate New Hampshire zone

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1		level. So, to try to pull dispatch of
2		individual units out of AURORA we don't think
3		is the appropriate way to do it. So, as
4		post-processing matter for the hydro units, we
5		did an independent assessment of what their
6		output would be, and we attempted to estimate
7		the long-term average production for them.
8	Q.	And was that based on and I'm looking at
9		Page 25, second sentence "Instead, long-term
10		average production was estimated for eight of
11		the nine hydro units using an average of
12		historical production from the nearly 22-year
13		period of 1992 to October 2013"? So, am I to
14		understand that it was based solely off
15		historic averages?
16	A.	(Koehler) For the units that did not have a
17		major change in their production over that time
18		period. And that's the reason why Smith was
19		done by a different methodology, because
20		Smith's output changed over that historic
21		record, so we didn't feel like that was the
22		appropriate way for Smith.
23	Q.	Was that a weighed average, or was that a
24		straight average?
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1	Α.	(Koehler) I'm not sure I understand the
2		question.
3	Q.	Let me rephrase. When you did your 22-year
4		average of eight of the nine hydros, did you
5		weight certain years heavier than others?
6	A.	(Koehler) No, other than the extent that
7		they're different numbers. But it's an average
8		of 22 annual output numbers, yes.
9	Q.	When you say "capacity supply obligations," is
10		that synonymous with "qualified capacity"?
11	Α.	(Hahn) Well, you have to qualify for the
12		auction, and then if you're a successful bidder
13		in the forward capacity auction, you receive a
14		capacity supply obligation. So I think you
15		could qualify for the auction, not be a
16		successful bidder, and you wouldn't get a
17		supply obligation.
18	Q.	I'm just trying to understand your report. You
19		have the forward capacity auction. From that
20		you generate a capacity price forecast. And to
21		get revenues from capacity, you have to
22		multiply that price by a certain capacity
23		amount. Where does that capacity amount come
24		from?
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1	Α.	(Hahn) That would come from the well, first
2		of all, there's a different amount for each
3		station or each plant.
4	Q.	Understood.
5	Α.	(Hahn) We assume that all of the plants,
6		including the PPAs, got capacity revenues. The
7		precise value
8		MR. HAHN: Did we get that from
9		the FCA?
10	Α.	(Koehler) Yes, and it's explained. The exact
11		procedure is explained in the report. It's
12		a we looked at their existing obligations.
13		And certainly for years that are covered by
14		existing FCAs, we used those numbers. In terms
15		of projecting forward it's explained on Page
16		29 to 30
17	Q.	Yeah.
18	A.	(Koehler) in the 2014 La Capra report.
19	Q.	And I'm looking at the second sentence in
20		Section 5.3 which says, "Each facility has
21		qualified for capacity credit in all of the
22		Forward Capacity Market auctions conducted to
23		date."
24		Does that phrase mean I heard that this
l		$\int DE [14-228]$ (TECHNICAL CECCION) $\int [10-26-15]$

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1		is a term of art, "qualified capacity." Is
2		that what is meant by that sentence?
3		(Witness reviews document.)
4	A.	(Hahn) Where is the term "qualified capacity"
5		defined?
6	Q.	I'm asking. I have heard that as a term of art
7		in this industry, and I'm asking is that what
8		is meant?
9	Α.	(Hahn) The answer is I don't know. I mean, I
10		think the definition, if it is the ISO
11		definition of "qualified capacity," will be in
12		the market rules for the forward capacity
13		auctions. But as I sit here today, I don't
14		know.
15	Q.	On Page 43, in the paragraph before
16		Section 6.3, you state, "We allocated the total
17		hydro budget proportional (less FERC
18		re-licensing costs) to each unit's capacity
19		supply obligation."
20		How is that allocation done? On what
21		basis?
22	Α.	(Koehler) I believe you just stated it. It's
23		by the capacity supply obligation.
24	Q.	So is that the same as the is that
		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

А.	"qualified capacity," is that the amount of capacity that they enter into the (Koehler) It's by our projection of their
А.	
Α.	(Koehler) It's by our projection of their
	capacity supply obligation, which would be the
	capacity that has qualified and cleared in a
	forward capacity auction.
Q.	Do capital expenditures that are reduced from
	each year's cash flows include repairs
	necessary to obtain a upcoming FERC license
	to satisfy the FERC relicensing procedure?
Α.	(Koehler) Could you clarify which which
	stream you're talking about?
Q.	Well, keep in mind I don't actually have the
	DCF. That hasn't been provided to me. So I'm
	assuming that when you make a capital
	expenditure reduction on a yearly basis, which
	I believe you based on information provided by
	PSNH
A.	(Hahn) Wait a minute. You said "capital
	expenditure reduction"?
Q.	Yeah. I imagine you are are you reducing
	cash flows by a capital expenditure amount for
	each year's cash flow in your DCF?
A.	(Hahn) Well, capital expenditures are assumed
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	A. Q. Q.

1		to be capitalized; therefore, they're treated
2		as plant in service after the year they're
3		made. So in the we assumed a constant
4		debt/equity structure for the buyer. So there
5		would be some of that purchase price that would
6		be funded by debt, the principal and interest,
7		which would reduce EBITDA. And the equity
8		portion would be included in the equity in the
9		cash flow-to-cash flow analysis.
10	Q.	So the portion that is reduced from the cash
11		flow analysis, that does that represent
12		specific capital expenditures that are going to
13		be made at each station? End of question.
14	Α.	(Hahn) Yes.
15	Q.	Do those capital expenditures envision repairs
16		that are necessary to obtain the FERC
17		relicensure at the end of the DCF?
18	А.	(Hahn) I'm not sure I understand the question,
19		"at the end of the DCF."
20	Q.	So you're your DCF has a final year;
21		correct?
22	Α.	(Hahn) It does.
23	Q.	Okay. And in each year in your DCF, I believe
24		for Smith let's use that as an example it
ļ		{DE 14-238} (TECHNICAL SESSION) {10-26-15}

1		goes until, I believe, for 39 years, correct,
2		per the 2015 update?
3	Α.	(Hahn) That number is a matter of record
4		somewhere. I don't recall it.
5	Q.	Okay. In year 38 or 39, do the capital
6		expenditures at Smith, in DCF, envision repairs
7		necessary to obtain a FERC relicensure?
8	A.	(Koehler) No, they do not. No. The assumption
9		was that we elected to end the pro formas on
10		the year of the FERC relicensing under the
11		assumption that, assuming relicensing an
12		additional 30 years of pro forma life would
13		introduce all of these additional questions.
14		You'd have cost of relicensing, trying to
15		estimate 30 years of revenue starting in 2039,
16		say, or whatever year it is. And so we decided
17		that an investor in an asset like this would
18		not place any value, positive or negative, on
19		that uncertainty at the end of the life. So
20		there's no cost assumed for in most of these
21		unit cases, it would be a second relicensing,
22		because for the ones that have relicensing
23		coming up in the near term, we did assume that.
24		But then, for the out beyond, I think 30 years,
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1		we elected to not include any costs, nor any
2		post-relicensing revenues for those units.
3	Q.	Is there a reversionary value at the end of
4		DCF?
5	Α.	(Hahn) No, there's not.
6		MR. SPEIDEL: Excuse me. Any
7		sense of how many more questions we have from
8		Berlin?
9		MR. MAHER: Five minutes.
10		MR. SPEIDEL: Okay. Carry on.
11	BY M	R. MAHER:
12	Q.	So am I correct that you assume that there's
13		not going to be any more EBITDA at the end
14		of using Smith again with the 39-year life
15		year 40, there's a zero EBITDA under your
16		model? Is that what's assumed?
17	Α.	(Hahn) Yes.
18	Q.	And I note on Page 65 you make reference to
19		"book life." Can you explain briefly how "book
20		life" factors into your DCF?
21	Α.	(Hahn) Sure. Most assets have an asset life
22		over which their investments are depreciated
23		for accounting purposes. That's referred to as
24		a "book life." There is also something called
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1		a "tax life," which can be different from the
2		book life. Usually is. And it represents the
3		period of time over which a particular
4		investment can be depreciated or amortized for
5		tax purposes.
6		So in the model, book depreciation shows
7		up as an item in the financial pro forma, just
8		as it would for any other company or asset.
9	Q.	And at Page 63 you state, "Applying the
10		respective median values to the PSNH units,
11		escalating 1 percent in addition to inflation,
12		adding 15 percent for overhead yields a
13		forecast of O&M expense well below the
14		referenced scenario forecast."
15		Didn't this analysis give you pause in
16		relying upon PSNH's reported O&M expenses for
17		the purposes of your DCF?
18	A.	(Hahn) It was an alternative scenario. It did
19		not give us pause to doubt what they gave us.
20	Q.	Not with regard to the voracity of it. But if
21		you are running a market-based O&M sensitivity,
22		and that sensitivity is revealing that PSNH's
23		O&M is higher than market, why would you use
24		PSNH's actual O&M if you were envisioning the
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1		purchase price by another entity?
2	Α.	(Hahn) It was an alternative scenario we looked
3		at, just as we looked at high gas prices. Our
4		view was that the Company has operated these
5		plants for 30, 40 years. They would be a good
6		source of what it would cost to run them in the
7		future. Are there alternative estimates of
8		that? Sure. Could they be higher or lower?
9		Sure. So we tested sensitivities in the 2014
10		study. But again, the reference case assumed
11		the values that we received from the Company.
12	Q.	And last question with regard to the LMM report
13		that's referenced in here. I take it that's a
14		document within your possession?
15	A.	(Hahn) The LMM or the NMM?
16	Q.	NMM.
17	Α.	(Hahn) Yes, sir, that's a document
18	Q.	That's a document in your possession. And is
19		that a document that you will produce subject
20		to signing of the confidentiality agreement?
21		MR. SPEIDEL: Again, that would
22		be subject to the authorization of Non-Advocate
23		Staff.
24		MR. MAHER: Understood.
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MR. SPEIDEL: And the La Capra 1 2 Associates entity, our consultants, have plainly indicated that they believe that to be 3 confidential in toto. And there may have to be 4 ongoing discussions as to whether a 5 6 non-disclosure agreement with the City of Berlin would provide adequate protection for La 7 8 Capra Associates in this specific instance. City of Berlin 9 MR. MAHER: anticipates that those discussions will be had 10 11 in the future? MR. SPEIDEL: 12 Yes. I think perhaps a bilateral meeting with Non-Advocate 13 14 Staff at some juncture with your 15 representatives and our representatives, and I 16 think we could discuss it. But again, it would 17 be subject to our authorization. 18 MR. MAHER: Thank you. That's 19 all the questions I have. That's all the 20 questions I have at this time. We do reserve 21 our right to ask additional questions and 22 request additional documents subject to our review of the recently disclosed 2014 23 24 unredacted appraisal. Thank you, gentlemen. $\{\text{DE } 14-238\}$ (TECHNICAL SESSION) $\{10-26-15\}$

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1		MR. SPEIDEL: Thank you very
2		much.
3		Mr. Sheehan, redirect on behalf
4		of Non-Advocate Staff?
5		MR. SHEEHAN: Thank you. We
6		just had a couple. Just one clarifying point
7		that I wanted to make.
8		EXAMINATION
9	BY M	R. SHEEHAN:
10	Q.	The Staff report we've been talking about, the
11		2014 Staff report, you had direct contact with
12		the Staff members who prepared that report; is
13		that correct?
14	Α.	(Hahn) Yes.
15	Q.	And they were whom?
16	Α.	(Hahn) Steven Mullen, and Tom Frantz.
17	Q.	Okay.
18	Α.	(Hahn) Mr. Frantz, I think that's how you
19		pronounce his name. The two of them and Mr.
20		Koehler and I were at that initial meeting on
21		the date that we toured the Company's
22		hydroelectric assets. And that's when they
23		asked how would you go about this and we gave
24		them some guidance and we gave them some
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1		numbers. They sent us back a spreadsheet that
2		had the estimate of the retail market price for
3		default service if you weren't going to go to
4		the market, and we said that was okay with us.
5	Q.	And do you know where Mr. Mullen is now?
6	A.	(Hahn) I believe he's left the Commission
7		Staff.
8	Q.	And you're aware that Mr. Frantz is with the
9		settling parties in this particular document?
10	A.	(Hahn) That's what I understand to be the case,
11		sir.
12	Q.	Thank you.
13		MR. SHEEHAN: That's all we
14		have. Thank you.
15		MR. SPEIDEL: Well, it would
16		appear that the line of questioning is
17		concluded from the various parties. I thank
18		our consultants from La Capra Associates,
19		Messrs. Hahn and Koehler, very much for their
20		cooperation and assistance. And I thank you
21		all for your attendance and participation.
22		Therefore, I ask that we conclude the record
23		for this proceeding. Thank you.
24	(Wh	ereupon the proceedings concluded at 12:32 p.m.)
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CERTIFICATE

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

I further certify that I am neither 11 attorney or counsel for, nor related to or 12 employed by any of the parties to the 13 action; and further, that I am not a 14 relative or employee of any attorney or 15 counsel employed in this case, nor am I 16 financially interested in this action. 17 18 19 Susan J. Robidas, LCR/RPR Licensed Shorthand Court Reporter 20 Registered Professional Reporter N.H. LCR No. 44 (RSA 310-A:173) 21 22 23 24

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